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The Influence of Maternal Characteristics on the Quality of Life of Postpartum Mothers

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Abstract

Purpose: To determine the influence of postpartum maternal characteristics on the quality of life.
Methodology: This study is a correlational, quantitative study using a cross-sectional approach. This research instrument uses a questionnaire with a questionnaire compiled by Hill called Maternal Postpartum Quality of Life. 61 respondents were involved in the study.
Results: The study's results with the Pearson Product Moment correlation test showed a weak relationship between the mother's age, the week of pregnancy, the number of maternal pregnancies, the number of maternal births, the number of live children, and birth weight. Based on the ANOVA test, the results showed an influence between living together, working, and profession with the mother's quality of life.
Applications/Originality/Value: The difference between this research and previous research lies in the research respondents, research time, measuring instruments, literature used, theories used, and results from research. Further research can be carried out on more diverse targets.

Introduction Section

The Maternal Mortality Rate (MMR) is a measure of a country's progress and a factor in determining how well women are living. In 2018, there were 76% of deliveries and postpartum deaths among women in Indonesia. Several events brought this high mortality rate before and after childbirth (RI, 2021). Indonesia's maternal mortality rate in 2021 was 7,389 instances (Indonesia, 2022). Maternal mortality rate (MMR) is a standard metric used to evaluate the efficacy of health development. The maternal mortality rate of 57.08/100,000 KH in the Sukoharjo Regency (Sukoharjo, 2021).

The puerperium period ranges from 4-6 weeks after calving (Sakineh et al., 2022). Currently, the mother's body is returning to its physiological state as it was before, associated with numerous psychosocial changes and new roles, making it difficult for the mother to prioritize and adjust to this condition. (Rahmani et al., 2022). The quality of life of puerperal moms is impacted by physiological changes, new life adaptations, and sleep difficulties, resulting in complications and a lower life rate for puerperal mothers. Clinical and environmental factors like pain, fatigue, urinary incontinence, pregnancy complications, delivery method, depressive status, sexual dysfunction, insufficient social support, a heavy workload, not sharing tasks with the husband, and depression can hurt one's quality of life. (Mokhtaryan-Gilani et al., 2022).

There are many issues with the world that might lead to a reduction in quality of life, such as a study done in Norway that found that most postpartum women have sleep issues and exhibit symptoms of melancholy and low well-being.(Valla et al., 2022). In the United States, one in eight women experiences depressive symptoms 14% of postpartum mothers in Saudi Arabia have similar symptoms (Badr et al., 2021). Based on the results of interviews with ten postpartum mothers who were in the working area of the Kartasura health center on day 3, they said that as housewives who do not have a fixed income, cranky babies and unplanned pregnancies add to the burden on the mother's mind. Mom feels like she does not have time alone; she does not have time with

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friends. A vital step to improve the quality of life of puerperal mothers begins with an assessment of the quality of life of puerperal mothers today. The purpose of this study was to determine the influence of maternal characteristics on the quality of life of puerperal mothers. Quality of life is closely related to the incidence of morbidity in the mother (Hirshberg & Srinivas, 2017). Research on the quality of life in Indonesia is still small, so it is still challenging to know the quality of life of postpartum mother. For this reason, I am interested in researching the influence of maternal characteristics on the quality of life of puerperal mothers

Method

This research method was carried out in the working area of the Kartasura Health Center. The study population was puerperal mothers who gave birth on August 28, 2022, to October 15, 2022, in the Kartasura health center work area; the inclusion criteria of the respondents were not having physiological disorders, willing to be respondents, not having visual and hearing impairments. The respondents involved in this study were 61. Samples were taken by purposive sampling technique. This research is a correlational, quantitative study using a cross-sectional approach study. This study aims to determine maternal characteristics' influence on puerperal mothers' quality of life. The free variables of this study are maternal characteristics, namely the age of the mother, the week of pregnancy, the number of maternal pregnancies, the number of maternal births, the number of live children, the weight of the baby born, the village, the last education, marital status, ethnicity, living together, type of work, profession, intention to conceive, desire to conceive, pregnancy complications, how to give birth and nutrition of the baby while the bound variable is quality of life.

This research instrument uses a questionnaire compiled by Hill called Maternal Postpartum Quality of Life (PQOL) which consists of 54 questions about psychology/infants, socioeconomics, relational/mate, relational/family friend, health, and physical functioning (Hill et al., 2006). Before being used in data collection, translated questionnaires and questionnaires in Indonesian were tested for validity and reliability on 30 subjects with similar characteristics to research respondents in the Kartasura area. The trial results showed 47 valid questions, 7 invalids, and a Cronbach's Alpha reliability value of 0,949. Questionnaire questions are questions with a Likert scale of 1-6. The maximum score is 282, and the minimum score is 1. The higher the score, the higher the quality of life of the puerperal mother.

Ethical Considerations

This research was conducted after obtaining approval from RS dr. Moewardi kept the confidentiality of our respondents in this study. Participation in the study is voluntary. Participants are granted the right to participate in or refuse to engage in this research. The study was without adverse consequences and was given a complete description of the nature of the study..

Data Analysis

The data is entered into an Excel spreadsheet and then exported into SPSS. Normality tests were carried out using Kolmogorov-Smirnov data to determine whether the data were normally distributed. Normality tests are carried out as a condition for conducting correlation tests, regression and so on. The normality test that has been carried out obtained the results of normally distributed data. Pearson Product Moment correlation test between numerical data on respondents' characteristics and the quality of life of puerperal mothers. One-way ANOVA test between categorical data and the quality of between categorical data and the quality of life of puerperal mothers to determine the influence of maternal characteristics on the quality of life of puerperal mothers.

Result

Table 1. Distribution of characteristics of puerperal mothers

Variable	Mean Median	SD	SE	Min-Mak
Maternal age	28.89 28,88	5,135	0.657	20 – 41
Weeks of pregnancy	38,97 38,96	1,224	0.157	36 – 42
Pregnancy to	2,00 2	0,931	0.119	1 – 5
Birth to	1,95 2	0,902	0.116	1 – 5
Number of live children	1,92 2	0,881	0.113	1 – 5
Birth weight	361,13 3161,13	443,944	56,841	2200 - 4740

Based on table 1, the total respondents of 61 analysis results obtained, the average age of mothers is 29 years, the youngest age of mothers giving birth is 20 years, and the oldest age is 41 years. The average puerperal mother's pregnancy week of childbirth at week 38.97. During the week of pregnancy of baby is born between 36-42 weeks with an average of 39 weeks of gestation. The week of pregnancy of the youngest baby at 36 weeks of age and the week of gestation of the oldest baby at 42 weeks. The average puerperal maternal pregnancy is the second pregnancy. The youngest pregnancy of puerperal mothers is found in 1 pregnancy, and most pregnancies are in the fifth pregnancy. The average number of births in a puerperal mother is two, with a maximum of five births. The average number of live cubs is two. There are at least one live child and a maximum of five. The average number of births in a puerperal mother is two, with a maximum of five births. The average number of live cubs is two. There are at least one live child and a maximum of five. The average birth weight of 361,3 grams of the baby's body is the lowest at 2200 grams; the highest is 4740 grams.

Table 2. Distribution of characteristics of puerperal mothers

Variable		Sum	Percentage
Village	Wirogunan	3	0,3
	Singopuran	2	0,2
	Ngabeyan	5	0,5
	Kartasura	7	0,7
	Ngadirejo	4	0,4
	Ngemplak	5	0,5
	Pucangan	8	0,8
	Gumpang	9	0,9
	Makamhaji	9	0,9
	Gonilan	5	0,5
	Kertonatan	3	0,3
	Pabelan	1	0,1
Final education	SMP	5	0,5
	SMA	34	3,4
	Bachelor	22	2,2
Marital status	Divorce	15	1,5
	Marry	46	4,6
Tribe	Outside Java	1	0,1
	Javanese Javanese Javanese	60	6,0
Living together	Native family	8	0,8
	Husband	53	5,3
Types of work	Work	25	2,5
	Not working	36	3,6
Work	Not working	30	3,0

	Private	28	2,8
	Country	3	0,3
Profession	Laborer	4	6,6
	Merchant	6	9,9
	Private	7	11,5
	Teacher	5	8,2
	Housewives	37	60,7
	Health workers	2	3,3
Pregnant intentions	Don't plan	25	2,5
	Plan	36	3,6
Desire to conceive	Unwanted	12	1,2
	Ambivalent	3	0,3
	Desired	46	4,6
Pregnancy complications	Exist	6	0,6
	None	55	5,5
How to give birth	Section caesarea	27	27
	Usual	34	34
Baby nutrition	Formula	2	0,2
	Breast milk and formula	13	1,2
	Breast milk	46	4,6

Based on table 2, consisting of 12 villages located in the Kartasura area, the distribution of respondents based on the most villages is in Gumpang and Makamhaji villages 9 (0.9 %) at least come from Pabelan 1 village (0.1 %). Based on the last level of education of the respondents, as many as 0.5% had the last education in junior high school; the last was high school, 3.4%, and bachelor's education was 2.2%. It can be concluded that the last education of the majority of respondents was in high school

The marital status of 1.5% of respondents was divorced, and 4,6% were married.

Based on tribal origin, as many as 0,1% came from outside Java, and 6% came from Javanese. Respondents who lived with their original family were 0,8%, and 5,3% lived with their husbands. The respondents' work type was 2,5% of postpartum mothers working, and respondents who were not working as much as 3,6%. Based on the working category, 3% are not working, 2,8% are working in private agencies, and 0,3% are working in public agencies. Respondents dominated by profession as housewives 60,7% and at least worked as health workers as much as 3.,%.

Regarding the intention to conceive, most respondents said they did not plan to get pregnant by 25%, and 36% planned to get pregnant. Respondents who desired to conceive were 4,6% unintended by 1,2% and ambivalent by 0,3%. Regarding pregnancy complications, most had no pregnancy complications 5,5% and those with complications by 0,6%

2,7% of respondents gave birth to Sectio Caesarea 3,4% gave birth typically. Nutrition to infants as much as 4,6% were given exclusive breastfeeding, breast milk, and formula milk by 1,3% and formula milk by 0,2%.

Table 3. Pearson Product Moment Analysis of maternal characteristics and quality of life

Variable	R	R	P value
Maternal age	0,088	0,008	0,502
Weeks of pregnancy	0,085	0,007	0,517
Pregnancy to	0,030	0,001	0,816
Birth to	0,008	0,000	-0.061
Number of live children	0,010	0,000	0,938
Birth weight	0,106	0,011	0,415

Based on table 3 of the relationship between quality of life and age, having a weak relationship (r = 0,088) and having a positive pattern means that the older the mother's age, the greater the quality of life of the postpartum mother (p = 0,517). The relationship between the weeks of pregnancy of the baby has a weak relationship (r =

0,085). It has a positive pattern, meaning that the older the gestational week the baby is born, the greater the quality of life of the puerperium (p = 0,517). The relationship between maternal pregnancy and the puerperal mother's quality of life is weak (r = 0,030). It has a positive pattern, meaning that the more pregnancies the mother has, the greater the quality of life of the puerperal mother. (p = 0,816) . The relationship between maternal birth and postpartum mothers' quality of life is weak (r= 0,008). It is negatively patterned, meaning that the more mothers die, the smaller the quality of life of postpartum mothers (p = -0,061). The relationship between the number of children alive and the number of children living the mother's quality of life has a weak relationship (r = 0,010). It is positively patterned, meaning that the more children are alive, the same.

Table 4. Results of the Anova test of maternal characteristics on the quality of life of puerperal mothers

Variable		Mean	SD	95 % CI	P value
Desa	Wirogunan	221,33	37,448	128,31-314,36	0,151
	Singopuran	226,00	32,527	-66,24-518,24	
	Ngabeyan	201,80	9,741	190,04-213,56	
	Kartasura	241,43	16,940	225,76-257,10	
	Ngadirejo	219,25	61,218	121,84-316,66	
	Ngemplak	245,40	14,910	226,89-263,91	
	Pucangan	242,40	27,055	219,76-264,99	
	Gumpang	221,22	29,533	198,52-243,92	
	Makamhaji	233,44	22,339	216,27-250,62	
	Gonilan	197,33	21,673	194,29-248,11	
	Kertonatan	254,00	21,572	147,73-250,92	
	Pabelan	228	-	-	
Final education	SMP	233,40	24,735	202,69-264,11	0,465
	SMA	223,79	30,673	213,09-234,50	
	Work	233,00	28,779	221,49-244,81	
Marital status	Divorce	239,07	24,297	225,61-252,52	0.084
	Marry	224,26	29,413	215,52-233,00	
Tribe	Outside Java	243,00		225,61-252,52	0,601
	Javanese	227,65	28,778	220,17-235,13	
Living together	Native family	199,38	31,632	172,93-225,82	0,002
	Husband	232,21	26,017	225.04-239,38	
Types of work	Work	232,68	27,702	221,25-244,11	0,284

	Not working	224,58	29,428	214,63-234,54	
Work	Not working	224,30	28,415	213,69-234,91	0.020
	Private	227,04	27,191	216,49-287,11	
	Country	272,00	6,083	256,89-287,11	
Profession	Laborer	242,75	17,347	214,65-269,85	0,017
	Merchant	240,50	33,195	205,66-275,34	
	Private	206,57	128,063	18247-230,64	
	Teacher	258,00	17,123	236,73-279,27	
	Housewives	23,41	27,444	214,26-232,56	
	Health workers	244,00	12,728	129,64-358,36	
Pregnant intentions	Don't plan	223,00	28,562	211,21-234,79	0,271
	Plan	231,31	28,833	221,55-241,06	
Desire to conceive	Unwanted	224,25	30,302	205,00-243,50	0.600
	Ambivalent	214,33	54,040	80,09-348,58	
	Desired	229,74	27,034	22,71-237,77	
Pregnancy complications	Exist	247,83	21,132	225,66-270,021	0,074
	None	225,73	28,809	217,94-233,52	
How to give birth	*Section caesarea*	229,53	29,960	217,78-241,48	0,680
	Usual	226,53	28,184	216,70-236,36	
Baby nutrition	Formula	236,23	16,684	226,15-246,31	0,400
	Breast milk and formula	239,50	31,547	215,68-234,41	
	Breast milk	225,04	4,950	216,70-234,36	

Table 4 shows that puerperal mothers who live in 11 villages in Kartasura get a P value of 0,151; it can be concluded that there is no difference in the villages where puerperal mothers live in the quality of life of puerperal mothers. The last education of puerperal mothers consisted of junior high school, high school, and undergraduate from the results of statistical tests obtained a P value of 0,456. This means that there is no difference in the level of education last to the quality of life of puerperal mothers. Based on marital status, the results of statistical tests obtained a P value of 0,084, and it can be concluded that there is no difference in the marital status of puerperal mothers to the quality of life of postpartum mothers with marital status. Based on the results of statistical tests, a value (p-value of 0,601) can be concluded that there is no difference in ethnicity where puerperal mothers come from the quality of life of puerperal mothers. Based on the results of statistical

tests, a value (p-value of 0,002) can be concluded that there are differences in living together with the quality of life of puerperal mothers.

Based on the results of statistical tests, the value (p-value 0,017) can be concluded that there are differences between professions and the quality of life of puerperal mothers. The statistical test results obtained a value (p-value of 0,271); it can be concluded that there is no difference in the quality of life of puerperal mothers with working pregnant intentions. The statistical test results obtained a value (p-value of 0,600); it can be concluded that there is no difference between the desire to get pregnant and the quality of life of puerperal mothers. The results of the statistical test obtained a value (p-value of 0,074); it can be concluded that there is no difference between pregnancy complications and the quality of life of postpartum mothers. The results of the statistical test obtained a value (p-value of 0,680); it can be concluded that there is no difference between the way of delivery and the quality of life of puerperal mothers. The results of the statistical test obtained a value (p-value of 0,400); it can be concluded that there is no difference between providing nutrition to babies to the quality of life of puerperal mothers.

Discussion

Quality of life refers to a person's perception of life based on existing cultures, values, attitudes, goals, and standards (Mokhtaryan-Gilani et al., 2022). Factors that can affect the quality of life are socio-demographic, inadequate social support, heavy workload, husband involvement, postpartum depression, sexual dysfunction, number of pregnancies, methods of childbirth, and Pregnancy complications (Mokhtaryan-Gilani, & Nasiri, 2022).

Based on table 3. The results of this study demonstrate that puerperal mothers' quality of life is unaffected by their age. Because psychological resources like resilience, optimism, coping style, and social support are thought to affect a person's well-being differently depending on one's age, so there is a complicated quality of life (Brett et al., 2019). This is different from the research that has been done (Valla & Misvær, 2021) higher quality of life scores were correlated with decreased puerperal maternal age outcomes. Because it affects conditions during pregnancy, labor, and puerperium, as well as how to care for and milk the infant, the mother's age is crucial to her health. Mothers under the age of 20 are unprepared to become pregnant, give birth, and breastfeed their children since they are still developing physically and socially (Hasna et al., 2020).

There is no difference in the quality of life of postpartum moms during the weeks of pregnancy, according to the effects of pregnancy on the quality of life of puerperal mothers. The effects on a person's emotional, social, and physical health and well-being are reflected in their quality of life. Children who are born too soon or outside of the standard gestational week typically have a lower quality of life (Ni et al., 2022). According to data from respondents, maternal parity of at least one and up to 5 can impact a mother's psychological state, particularly for moms about to give birth. First, parity may be at risk because fetal growth restricts the uterine muscles. Due to prior delivery experience, a parity of more than one is more prepared for pregnancy. (Rahayuningsih et al., 2021).

According to a study, there is a correlation between maternal pregnancy, the number of births, and the number of children still alive (Murbiah, 2016) which declares that no relationship exists between the maternal quality of life and parity. This is feasible because primiparous women require much guidance, assistance, and support to manage puerperium. This is possible because motherhood serves as a stress-relieving buffer, making it crucial for parents to improve their children's health and well-being (Valla & Misvær, 2021).

The quality of life is unaffected by a baby's birth weight. Due to the factors that determine a child's health and survival through weight loss at birth, this is paradoxical. Low birth weight babies are more susceptible to various health issues, which can affect postpartum mothers (Tridiyawari et al., 2021). Pregnant women's nutritional condition is crucial for promoting maternal and child welfare since there is a possibility that their malnutrition would affect their unborn kid's nutrition and result in low birth weight (Dewi, 2018).

There is no effect on the puerperal mother's quality of life based on the characteristics of the village whereby she lives. The fact that the postpartum mother works in the same region as the puskesmas allows for the same services to be obtained. According to a study conducted by puerperal mothers living in metropolitan regions (Dikmen & Topuz, 2021), Access to care, education, and health services is made more accessible, which results

in a higher quality of life. The research (Arie & Putri, 2019) found that mothers who live in the country are often shorter than those who reside in cities. Children with short parents have the risk of stunting and low birth weight, and height is one of the factors that might be passed on to them.

The mother's academic background affects the postpartum mother's quality of life. According to studies (Wulandari & Mufdlilah, 2020), education impacts the quality of life for puerperal mothers. Because every level of education can result in a low quality of life score, postpartum mothers' quality of life is likely unaffected by their amount of schooling. However, mothers with higher levels of education tend to have more knowledge and self-confidence, particularly about health.

There was no statistically significant relationship between marital status and the quality of life for puerperal moms, according to a study done on 272 Brazilian women in the postpartum period (Ribeiro et al., 2021). Contrary to what was shown in this study, marital status had no impact on the standard of living of perinatal moms. The husband's support has been shown in studies to be a motivating factor that enables a person to act. The husband's support may influence by lowering anxiety, lessening discomfort, and quickening labor (Satrianegera et al., 2021)

According to the mother's tribe of origin, there is no correlation between that tribe and the mother's quality of life. According to research (Wiyanto & Ambarwati, 2021), the Javanese people view the puerperium era as a time that women must pass through; hence they disregard mothers during the puerperium as though they do not provide support. The Madurese tribe is very obedient to parents culturally if they argue with parents, it is said to be lawless in research on support, family trust and the role of the husband in the decision to choose a maternity helper in the madurese tribal community, the result is that there is a relationship between family support and the selection of maternity assistance for shamans in deciding the problem of choosing a family delivery helper has an important role (Abrori, Mardjan, 2017)

From the results of the study, it was found that there is an influence between living together on the quality of life of puerperal mothers; this is different from the research that has been carried out by (Wulandari & Mufdlilah, 2020) says that the quality of life is low for puerperal women who live in more than one household, including one with a husband. This is connected to the assistance that puerperal mothers receive from their families. Support from the family in the form of things, feelings, and knowledge affects puerperal mothers because they will feel cherished, loved, and supported (Lindawati, 2019). Couples' support reduces the strain placed on pregnant women, which results in a decrease in the incidence of depression. (Adeoye et al., 2022).

The results of this study show that the type of work does not affect the quality of life of postpartum mothers because, in contrast to the research that has been carried out in Turkey, which was carried out on 120 mothers who visited health centers, the results of working mothers had a higher quality of life compared to homemakers (Dikmen & Topuz, 2021). A career woman and a housewife contribute to motherhood's success, and homemakers are particularly prone to stress because they control the family's economy. Homemakers experience stress as a result of saturation. Meanwhile, the amount of time for relaxation decreases since working mothers are stressed out because they do not have free time (Widya Ananda et al., 2021). In opposition to studies from 2015 to 2020 that claim that working moms experience fewer positive reactions than non-working mothers, resulting in non-working mothers' lives being of higher quality than those of working mothers (Herwanis, 2021).

Based on the characteristics of work and profession, it was concluded that there is a difference between the profession and the quality of life of puerperal mothers. As the research has been done (Wulandari & Mufdlilah, 2020), there is an influence between income on the quality of life of postpartum mothers. According to research on breast cancer patients, working patients had a higher quality of life than non-working patients. Women who do not work risk developing depression, which lowers their quality of life (Dian Ayu, 2018). Work determines an individual's income, which impacts the accessibility of valuable information facilities to advance understanding (Imarina, 2016).

In contrast to research done by Dikmen & Topuz (2021) on postpartum moms in Turkey, this study reveals no relationship between the intention to become pregnant and the desire to become pregnant and that neither factor has an impact on quality of life. According to research (Qiftiyah, 2018), a planned pregnancy may cause a postpartum blues episode since the planned pregnancy will prepare the mother to face childbirth and motherhood so that she is prepared to handle the postpartum period.

Based on the results of research between pregnancy complications and quality of life, the results were found to have no effect because. Pregnancy complications are severe and require immediate treatment to avoid maternal and infant death. Pregnancy complications are caused by the mother's lack of knowledge about pregnancy; the mother's age is <20 atau >35 and has more than 3 (Komariah & Nugroho, 2020). Complications such as hypertension and gestational diabetes can affect the mother's quality of life. High-risk pregnancies have repercussions such as premature birth. Mothers who give birth prematurely are at risk of depression and a low quality of life (Fourianalistyawati, 2019).

A study conducted in India consisting of 178 women with expected labor delivery and 46 women giving birth by sectio caesarian found that women who gave normal labor well with episiotomy had a better quality of life than women who gave birth with sectio caesarea (Kohler et al., 2018). Mothers who give birth to sectio caesaria are at risk of physical and mental problems, especially in unplanned births (Amperaningsih & Siwi, 2018).

The findings indicated no relationship between the infant's nutrients and puerperal moms' quality of life-based on the parameters of nutrition administration. In contrast, research suggests that breastfeeding-related factors impact postpartum mothers' quality of life (Wulandari & Mufdlilah, 2020). Breast milk becomes the only food and beverage newborns require during the first six months following birth. Breast milk is easily digestible, packed with minerals, and contains calories.

Conclusion

The study's results with the Pearson Product Moment correlation test showed a weak influence between the mother's age, the week of pregnancy, the number of maternal pregnancies, the number of births, the number of live children, and birth weight. Based on the ANOVA test, the results showed an influence between living together, working, and profession on the mother's quality of life.

Acknowledgement

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The Relationship between Frequency of High-Sugar, Salt and Fat Food Consumption and the BMI in Adolescents

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Abstract

Purpose: To identify and analyze preliminary data on the consumption habits of sugar, salt, and fat and their relationship to the Body Mass Index (BMI) in adolescents.

Methodology: Observational study with a cross-sectional approach to high school adolescents in Surakarta. The number of incidental respondents aged 15-18 years was 31 students. Data on the characteristics of research respondents were obtained through questionnaires and the frequency of high-sugar, salt, and fat food consumption used the FFQ. Statistical data analysis of sugar and fat consumption on BMI using Fisher Exact and salt consumption on BMI using Chi-Square showed a p-value <0.05.

Results: The descriptive analysis results indicated that 61.3% of adolescents often consumed high-sugar foods and drinks, bivariate statistical analysis results showed a p-value of 0.026 (<0.05), meaning that there was a relationship between the frequency of high-sugar food and drink consumption and BMI in adolescents. 38.7% of adolescents often consumed high-fat food and drinks, meaning that there was a relationship between the frequency of high-fat food and drinks consumption and BMI with a p-value of 0.026 (<0.05). 54.8% of adolescents often consumed high-salt foods. However, based on the results of statistical tests, there was no relationship between the frequency of salt consumption and BMI as shown by a p-value of 0.889 (>0.05).

Applications/Originality/Value: The differences in research respondents, period and results that provideempirical evidence as the basic for the research to be carried out on the frequency of high sugar, salt, fat food consumption and the BMI of High School adolescents.

Keywords: BMI in adolescents, frequency, salt, sugar, fat

Introduction Section

The Individual Food Consumption Survey (SKMI) 2014 revealed that 29.7% of Indonesia's population or equivalent to 77 million people consumed sugar, salt and fat exceeding WHO recommendations: sugar (> 50 grams/day), salt (> 5 grams/day), and fat (> 67 grams/day) (Atmarita et al., 2016) Due to lifestyle changes, more than 340 million children and adolescents aged 5-19 were overweight or obese in 2016. 19% of boys and 18% of girls were overweight (World Health Organization, 2018). The selection of high-sugar foods includes simple sugars commonly used as added sugars widely found in a wide variety of sweetened foods and drinks. Simple sugars consist of monosaccharides (glucose, glactose and fructose) and disaccharides (sucrose, lactose and maltose) (R. J. Johnson et al., 2010). Excessive sugar consumption can slow brain function and leptin resistance. Long-term consumption of fructose increases calorie intake due to the loss of satiety signals in the brain resulting in overweight (Mirmiran et al., 2015). The study conducted by Rabaity & Sulchan in 2012 revealed that foods containing simple sugars were mostly consumed by adolescents, including candy, cakes, ice cream, all types of chocolate, all sweet foods and drinks (Rabaity & Sulchan 2012)..

In addition to sugar, salt consumption in the adolescents of 3.1 grams/day is close to the limit of salt consumption in a person which should not exceed 5 grams/day (SKMI, 2014), salt serves to maintain the body's

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chemical balance, regulate fluid volume and make cell membranes strong and flexible. Salt consumption can bind water so that it is absorbed into the intravascular causing blood volume to increase. High salt intake causes adipocyte hypertrophy due to lipogenic processes in white fat tissue, if it continues, it may cause the narrowing of blood vessels by fat (Kautsar et al., 2014). Excess intake of foods that contribute large calories such as fat is also closely related to being overweight. Unused calories will be stored in the body, resulting in a body mass index exceeding normal (Novela, 2019). Consumption of high-fat foods and drinks over a long period of time can trigger the risk of increasing body weight (Marie Beslayet et al., 2020).

Overnutrition is an unbalanced nutritional status indicating a BMI higher than normal due to excessive intake resulting in an energy imbalance between food consumption and energy expenditure which can cause health problems. Lifestyle changes affecting adolescent eating habits include easier access to food, an increase in energy-dense food products and low physical activity known as the nutrition transition(Fayasari et al., 2018). The prevalence of global excess nutrition (overweight and obesity) has experienced an increasing trend in the last 30 years. One age group at risk of experiencing excess nutrition is adolescents. Overnutrition in adolescents needs attention because if it occurs in adolescence, it will tend to continue into adulthood and old age. Meanwhile, excess nutrition is a risk factor for degenerative diseases in adulthood (Mohammadbeigi, 2018). Therefore, it is important to find out and analyze the relationship between the frequency of high-sugar, salt and fat foods and drinks consumption on the body mass index in high school adolescents.

Method

Research Design, Place and Time
The design used in the preliminary study was an analytical observational study with a cross-sectional approach. The cross-sectional study collects exposure and outcomes simultaneously to describe the subject's characteristics and the relationship between variables. The preliminary study was conducted on high school adolescents in Surakarta.

Total Subjects and Subject Collection Method

The number of incidental respondents was 31 high school students. Data collection method used in this study was purposive sampling based on inclusion requirements, namely in good health, male and female aged 15-18 years and willing to participate as respondents. The researcher explained to respondents in advance that the preliminary study was to fulfill scientific needs and asked for approval using informed consent.

Types and Data Collection Method

The data in this study are primary data, data on respondent characteristics were collected through respondent characteristic forms including gender, age, weight, and height, then BMI/A in adolescents was categorized based on Z-Score. Anthropometric data on body weight was obtained by weighing using a digital step-on scale while height measurement was carried out directly using a microtoise. Data on the frequency of high-sugar, salt and fat food and beverage consumption was measured using a Food Frequency Questionaire. After that, the data obtained were categorized according to the operational definition of the variables.

Data Processing and Analysis

Height and weight data were processed to obtain nutritional status data based on Body Mass Index (BMI). The data were then categorized based on Z-Score into underweight -3SD to <-2SD, normal -2SD to 1SD, overweight > 1SD to 2 SD and obese >2SD (Ministry of Health of the Republic of Indonesia, 2020). Data on the frequency of sugar-rich food and beverage consumption was categorized based on the operational definition of the variables into often 3-6x/week, rarely 1-2x/week and never. Univariate analysis was conducted to describe the respondents' characteristic variables, including the distribution of gender, age, Z-Score index (BMI/A), and frequency of rich-sugar, salt and fat food and beverage consumption. Bivariate analysis was conducted to determine the relationship between the frequency of rich-sugar, salt and fat food and beverage consumption

and BMI/A. In the bivariate analysis, Fisher Exact test was used to determine the relationship between sugar and fat consumption and BMI, while the Chi-Square test was used to determine the relationship between salt consumption and BMI at a significance level of $p<0.05$.

Results

The results indicated that based on the characteristics of most respondents aged 15 years by 45.2%, 80.6% of adolescents were female. Based on the body mass index, 16.1% of adolescents were overweight with Z-Score values > +1SD to +2SD, on average, 48.4% of adolescents rarely exercise, and 58.1% of adolescents have the habit of playing with gadgets in the frequent category.

Table 1. Distribution of Respondent Characteristics

Variable	Total	Percentage
Age		
15	14	45.2%
16	12	38.7%
17	2	6.5%
18	3	9.7%
Gender		
Male	6	19.4%
Female	25	80.6%
BMI		
Underweight	2	6.5%
Normal	24	77.4%
Overweight	5	16.1%
Exercise Habits		
Often	16	51.6%
Rarely	15	48.4%
Habit of Playing Gadgets		
Often	13	41.9%
Rarely	18	58.1%

Table 2 shows that 61.3% of adolescents consume high-sugar foods and drinks such as honey, syrup, sugar, jam, jelly, chocolate, biscuits/cookies, wafers, sweet bread, traditional snacks, soft drinks, bottled drinks, powder drinks and sweetened condensed milk. 54.8% of adolescents often consume several types of cheese and foods containing cheese, sauce, soy sauce and also chips in packaged form. Meanwhile, the consumption of foods containing fat showed 38.7%. Adolescents often consume types of food and drinks such as powdered milk drink, packaged liquid milk, soy milk, butter, margarine, junk food and snacks processed by frying.

Table 2. Distribution of Frequency of Sugar, Salt and Fat Consumption

Variable	Total	Percentage
Sugar Consumption		
Rarely	12	38.7%
Often	19	61.3%
Salt Consumption		
Rarely	14	45.2%
Often	17	54.8%

Fat Consumption		
Rarely	19	61.3%
Often	12	38.7%

Based on the statistical test in Table 3, it shows p-value of 0.026 (<0.05), meaning that there is a relationship between the frequency of high-sugar foods and drinks consumption on the BMI in high school adolescents.

Table 3. Correlation Between Frequency of Sugar Intake and BMI

Sugar consumption frequency	BMI Normal		Abnormal		Total		P value
	N	%			n	%	
Rarely	12	100	0	0	12	100	0.026
Often	12	63.2	7	36.8	19	100	
Total	24	77.4	7	22.6	31	100	

Based on the statistical test in Table 4, it shows p-value of 0.889 (> 0.05), meaning that there is no relationship between the frequency of high-salt foods consumption on the BMI in high school adolescents.

Table 4. Correlation Between Frequency of Salt Intake and BMI

Salt consumption frequency	BMI Normal		Abnormal		Total		P value
	N	%			n	%	
Rarely	11	78.6	3	21.4	14	100	0.889
Often	13	76.5	4	23.5	17	100	
Total	24	77.4	7	22.6	31	100	

Based on the statistical test in Table 5, it shows p-value of 0.026 (<0.05), meaning that there is a relationship between the frequency of high-fat foods and drinks consumption on the BMI in high school adolescents.

Table 5. Correlation Between Frequency of Fat Intake and BMI

Fat Consumption Frequency	BMI Normal		Abnormal		Total		P value
	N	%			n	%	
Rarely	12	63.2	7	36.8	19	100	0.026
Often	12	100	0	0	12	100	
Total	24	77.4	7	22.6	31	100	

The table of the correlation between the frequency of high-sugar fat foods and drinks intake and body mass index (BMI) uses the Fisher Exact test because it does not meet the Chi-Square requirements, some cells are less than 5 (> 20%), while the table of correlation between the frequency of high-salt foods intake uses the Chi-Square test.

Discussion

Adolescents are individuals who are in a transition period from childhood to adulthood. Several changes occur in adolescents, one of which is eating behavior, both leading to healthy eating behaviors and tending to lead to unhealthy eating behaviors. Such eating behaviors are often characterized by the intake of foods and soft drinks rich in sugar, salt and fat.

Intake of food and beverage is an important factor that can affect nutritional status. This is because the quantity and quality of food and beverage consumed can affect the health level of individuals and communities. The overview of disease patterns that are the main cause of death in Indonesia has shown an epidemiological transition followed by demographic and technological transitions, namely changes in disease patterns from infectious diseases to non-communicable diseases which then become the key factors causing morbidity and mortality. Behavioral patterns of food consumption containing excess sugar, salt and fat can lead to non-communicable diseases at a young age (Kusnali et al., 2019). Globally, the increase in intake of foods containing sugar continues to increase, both in adolescents and adults (Malik et al., 2013). The selection of types of food among adolescents contains high calories, fat, salt, sugar, but is low in fiber and vitamins, especially when it tends to taste savory or salty. Foods containing sugar often consumed by respondents, including simple sugars, can cause weight gain associated with the body mass index in adolescents exceeding the normal category. Simple sugars found in many foods and drinks are commonly consumed by most adolescents. One of the simple sugars commonly added to food and drinks is fructose. Fructose can thwart the production of leptin so that the amount of leptin becomes low resulting in obesity (Johnson et al., 2017). Apart from that, the consumption of sugar-containing beverages is associated with obesity because it does not cause a feeling of fullness, and are easily absorbed by the body so that the consumption of other foods increases (Ruyter et al., 2012).

The increasing production of packaged foods and the growing fast food restaurants have led to a transformation in dietary patterns. Currently, food availability is increasing along with the rapid development of supermarkets selling processed foods. Processed foods purchased by the community generally contain preservatives such as salt and sugar. Currently, salt intake is dominantly derived from salt added to processed foods by food producers than home-cooked meals. If the food served by the family is high in sodium or is an unbalanced diet, then a person will tend to follow the family diet, especially the parent's dietary intake. The Ministry of Health Regulation No. 30 of 2013 recommends consuming no more than 5 g of salt. However, some snack products have a salt content of more than the salt daily limit (Rembet et al., 2021). The results of this study indicated that the frequency of high-salt food consumption was not a risk factor for overweight and high body mass index in adolescents. However, excessive salt intake can also increase thirst and hunger. An increase in salt consumption of 1 g/day can also increase the consumption of sugar-sweetened beverage by 17 g/day resulting in changes in body composition and an increased risk of being overweight (Grimes et al., 2013). Salt serves to maintain the body's chemical balance, regulate fluid volume and make cell membranes strong and flexible. Salt consumption can bind water so that it is absorbed into the intravascular causing blood volume to increase. High salt intake causes hypertrophic adipocytes due to lipogenic processes in white fat tissue. If it continues, it may cause the narrowing of blood vessels by fat. Therefore, excessive salt intake can jeopardize the body's functions and has serious effects on health. Too much salt causes water retention in the body which may cause blood volume to increase (Kautsar et al., 2014).

The consumption of high-fat foods or junk food also increased among adolescents. Several factors affect high-fat food consumption, including access to food and the abundance of food availability for fast-growing school children (Tariq et al., 2020). This study is in accordance with the theory stating that excessive fat intake can lead to being overweight. Tasty fatty foods can increase appetite and promote excessive food consumption. Fat is also the largest energy reserve in the body. Body fat is generally stored in the tissue under the skin (subcutaneous) by 50%, around the organs in the abdominal cavity by 45%, and by 5% in intramuscular tissue. Fat is a stored source of essential nutrients. Fat functions as the most concentrated source of energy providing 9 kcal per gram (Abadi et al., 2022). The frequency of high-fat food consumption by the respondents had micronutrient content with low fiber and a high energy density. Excess fat intake was related to the body mass index of adolescents included in the overweight category. In the adolescent group, it was found overweight or obese adolescents or those with non-ideal weight. Obesity is characterized by an increase in adipose tissue mass

caused by incoming energy exceeding expended energy, resulting in accumulation in the form of fat. Accumulation in the form of fat will result in hypertrophy and hyperplasia of adipose tissue. Leptin is a hormone synthesized by adipose cells. Leptin functions to regulate or provide satiety signals in a person's body thereby reducing the amount of food intake, increasing energy expended through specific signals in the hypothalamus, and maintaining homeostatic body weight and increasing the use of energy expenditure. If a person is overweight or obese, it will affect the work or metabolic system related to the hypothalamus (Oswal & Yeo, 2010).

This study also found that adolescents with overweight body mass index were those who rarely exercised on average, and often played gadgets for more than 2 hours per day. The increase in BMI was affected by several factors, including technological advances causing adolescents lazy to carry out activities or physical activities, such as exercises and daily activities. Sedentary behavior is characterized by low energy expenditure by the body. Activities carried out in a lying or sitting position have become independent risk factors for overweight and metabolic syndrome health disorders (Hashem et al., 2019). The recommended duration of screen time is not to spend more than 2 hours on leisure activities every day (Wachira et al., 2018). WHO reports that the prevalence of obesity in adolescents comes from lifestyle changes (unhealthy food intake and physical activity patterns) causing an energy imbalance, more calorie intake and lower calorie expenditure (Hadianfard et al., 2021). A sedentary lifestyle results in the accumulation of fat in the body causing an imbalance in metabolism, and has an effect on changes in leptin and insulin sensitivity, namely satiety and appetite control, so that it is positively related to adiposity (Hopkins & Blundell, 2016). Sedentary behavior of adolescents is also one of the significant risk factors that cause adolescents to experience degenerative diseases, diabetes mellitus, obesity and daily disorders (difficulty in sleeping, dizziness and accelerated aging). A sedentary lifestyle and light physical activity lead to the accumulation of fat in the body which is not released as energy. If this condition lasts longer, it can cause accumulation in the abdominal area which can interfere with the body's metabolism (Putra, 2017). Abdominal fat accumulation occurs in the abdomen in excessive amounts, including subcutaneous fat tissue and abdominal visceral fat. Fat accumulation occurs because the subcutaneous fat tissue becomes dysfunctional to energy imbalances in the body due to increased nutritional intake and less physical activity. Energy balance related to energy intake and expenditure is affected by the central nervous system, especially the hypothalamus. Leptin, ghrelin and several other hormones associated with appetite, especially those working in the hypothalamus, the area in the brain as the center for regulating food intake and energy expenditure. Therefore, a lack of leptin signaling due to leptin deficiency or leptin resistance may cause excessive appetite which can lead to central obesity (Aprilia, 2021). Therefore, many state that the lack of physical activity and excessive food and beverage consumption is one of the causes of changes in body mass index associated with obesity and non-ideal weight.

Conclusion

Based on the results of the preliminary study, it can be concluded that there was a relationship between the frequency of high-sugar and fat food and drink consumption and BMI. The frequently consumed types of food and drink included honey, syrup, sugar, jam, jelly, chocolate, biscuits/cookies, wafers, sweet bread, traditional snacks, soft drinks, bottled drinks, powdered drinks and sweetened condensed milk. High-fat food include milk powder, packaged milk, soy milk, butter, margarine, junk food and fried snacks. Meanwhile, the frequency of high-salt food consumption had no relationship with BMI in adolescents. Seeing the risks associated with high-sugar and fat food and drink consumption, adolescents are expected to pay more attention to their dietary patterns. Obesity monitoring and prevention can be carried out by monitoring body weight during the School Health Unit (UKS) programs. The limitation of this preliminary study is the minimum number of respondents so it is necessary to conduct further research to obtain more accurate results.

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Analysis of Omega-3, AA, EPA, Omega-6, DHA, Pb and Hg Fatty Acid Levels of Sardinella Lemuru

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Abstract

Purpose: Lemuru fish has been consumed as fresh fish and raw materials for making pindang fish (steam), canned fish and fish meal by several fishing industries. This is because the price of lemuru fish is relatively cheap but has a high protein content. The high content of omega-3 fatty acids and the incompatibility of the texture of lemuru fish become easily damaged and decayed due to microbiological activity. Therefore, it is necessary to carry out intensive handling both by direct processing in the form of lemuru presto fish and preservation in the form of lemuru fish meal.

Methodology: This study is experimental, which aims to analyze the levels of omega-3, AA, EPA, omega-6, and DHA fatty acids using the GC method. Pb and Hg levels using the ICP OES method. The samples of this study were lemuru presto fish and lemuru fish meal. Descriptive data processing using Microsoft Excel 2010 is presented in texttular and tabular form.

Results: Lemuru presto fish and lemuru fish meal are highest in omega-3 levels (870.2 and 1714.4 mg/100 g) and DHA levels (713.2 and 1274.0 mg/100 g). The fatty acid content of lemuru fish meal is higher than that of lemuru presto fish. Lemuru fish is safe to consume because its Pb and Hg levels are almost undetectable.

Keywords : Lemuru Fish, AA Levels, DHA Levels, EPA Levels, Hg Levels, Omega-3 Levels, Omega-6 Levels, Pb Levels

Introduction Section

Lemuru fish (Sardinella lemuru Bleeker, 1853) usually inhabit areas where the process of water adjustment occurs, so that it can achieve high biomass. Therefore, lemuru fish depend on changes in the aquatic environment. The fishing season is high between September and December, in other months there are very few catches (Wujdi & Wudianto, 2015). Types of small pelagic fish that have economic value in Indonesia are mackerel (Rastrelliger sp.), kitefish (Decapterus spp.), selar fish (Selaroides sp), anchovies (Stolephorus spp), and lemuru fish (Hendiari, Sartimbul, Arthana, & Kartika, 2020:).

So far, lemuru fish is consumed as fresh fish and raw materials for making pindang fish, canned fish and fish meal by several fishing industries. This is because the price of lemuru fish is relatively cheap but has a fairly high protein content (Asare, Ijong, & Frets Jonas Rieuwpassa, 2018). Lemuru fish has a fat content between 3-24%, eicosapentaenoic acid (EPA) 19.37% and docosahexaenoic acid (DHA) content 4.60%, omega-3 fatty acid content as much as 6.56% (Ishak, 2011).

Fatty acids consist of essential fatty acids omega-3, EPA, DHA, omega-6, AA (Diana, 2012). The benefits of omega-3 fatty acids can help cure metabolic diseases such as type 2 diabetes, inflammation, cancer (Calder, 2015), cardiovascular, and improvement of growth, development of brain function, so that it can be utilized for food products (Amalia & Andriani, 2021). The content of omega-3 fatty acids is quite high and the texture of lemuru fish is easily damaged and decayed due to microbiological activity and autolysis during postmortem. For this reason, it is necessary to carry out intensive handling both by direct processing and preservation (Ananda, et al., 2022).

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Flour is an important type of basic food ingredient around the world to be used as various types of food products, it is a solid particle in the form of very fine grains. Fish meal is one of the results of drying and grinding of fish. There are various processing processes in fishmeal that are very diverse. The process of processing fish meal is dry and wet based on the fat content of the fish, there are three treatments, including presto, boiling, and steaming. The difference in the processing process greatly affects the quality of the quality of the fish meal produced. Lemuru fish meal contains 71.6% protein, 0.73% calcium and 38.5 mg zinc in 100 gr (Gultom & Martony, 2021). Lemuru fish is classified as an unwelcome fish because it is easily rotten and damaged (Sa'diyah, Hadi, & Ilminnafik, 2016), so that lemuru fish is a fish with a low grade, therefore it is necessary to conduct research by optimizing lemuru raw materials into flour products that have a longer shelf life (Ananda, et al., 2022). In addition to having a long shelf life, what is more important is the safety of fish for consumption, therefore it is necessary to check its heavy metal levels. Lemuru fish caught in the North Mindanao sea, 85% already contaminated with 3.74 microplastics ± 3.92 mm (Palermo, et al., 2020).

Heavy metals are elements that have a density of more than 5 gr / cm3, one of the environmental pollutants, and some of these metal elements are the most dangerous metals, including Arsenic (As), Lead (Pb), Mercury (Hg) and Cadmium (Cd). The properties of these metals have a great affinity with sulfur (sulfur). These metals attack sulfide bonds on important cell molecules such as proteins (enzymes), so the enzymes do not work. Heavy metal ions can be bound to important molecules of the cell membrane causing disruption of the transport process through the cell membrane (Endrinaldi, 2010). intake causes fever, hemolysis, erythema, edema, and eye irritation. Lead causes depression, loss of appetite, intermittent abdominal pain, nausea, diarrhea, constipation, muscle aches, and problems with sleep. Zinc causes nausea, vomiting, loss of appetite, stomach cramps, diarrhea, and headaches (Merusomayajula, Tirukkovalluri, Kommula, & Chakkirala, 2021). The presence of Lead in waters can contaminate aquatic ecosystems, in aquatic biota and sediments. Aquatic biota containing Lead in certain concentrations can be harmful and toxic if they enter the human body manusia (Simbolon, 2018). Therefore, for the safety of food consumed such as lemuru fish, it is necessary to analyze the Pb levels.

Several colorimetric and spectrometric methods for the determination of Lead, Palladium, and Zinc have developed and validated Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES) methods. No methods for discontinuation of Palladium, Lead, and Zinc by ICP-OES are reported in the drug substance voriconazole (Merusomayajula, Tirukkovalluri, Kommula, & Chakkirala, 2021). Gas Chromatography (GC) or Gas Chromatography or gas-liquid partition chromatography (GLPC) or vase-vapor chromatography (VPC) is a widely used analytical technique used to separate and analyze gaseous and volatile compounds. This technique is used for the separation of amino acids. GC has many applications because this technique is fast and has a high sensitivity (Gurleen Kaur, 2018). The ICP-OES method has become a routine analysis technique for the determination of metals; But information relating to validation methods is extremely rare, and research on this area is still required. Several studies present the use of ICP-OES for the determination of metals in tea or food samples (Senila, Andreja, Pintar, Senila, & Levei, 2014).

Method

This study is experimental, which aims to analyze the levels of omega-3, AA, EPA, omega-6, and DHA fatty acids using the GC method. Pb and Hg levels using the ICP OES method, analyzed at PT Saraswanti Indo Genetech SIG Laboratory Jl. Rasamala No. 20, Taman Yasmin, Bogor, West Java 16113. The variables studied were chemical tests in the form of analysis of the content of omega-3, AA, EPA, omega-6, DHA, Pb and Hg. Ingredients used in the research of lemuru presto fish and lemuru fish meal. Used tools gas cylinders, stoves, pressure cookers, baking sheets, ovens, blenders, flour sieves, tablespoons, basins, dishes, scales. Materials and tools used for chemical tests of extraction equipment along with timbel (sleeve) and Soxhlet Extractor. Descriptive data processing using Microsoft Excel 2010 is presented in texttular and tabular form.

Result and Discussion

From the results of the analysis shown in Table 1. Both lemuru presto and lemuru fish meal have the highest levels of omega-3 compared to AA, EPA, omega-6 and DHA levels. The fatty acid content of lemuru fish meal is higher than that of lemuru presto fish. Pb and Hg levels in lemuru fish caught from the Pekalongan sea in Central Java are almost undetectable so lemuru fish are still safe for consumption. Mercury concentration in lemuru fish caught in the East Java sea (Prigi and Muncar) was 0.938 ± 0.45 mg/kg and 0.58 ± 0.65 mg/kg (Sartimbul, Amandani, & D Yona, 2021).

Table 1. Levels of Omega-3, AA, EPA, Omega-6, DHA, Pb and Hg

Sampel Name (mg/100 g)	Omega-3	AA mg/kg	EPA	omega -6	DHA	Pb	Hg
Lemuru fish Presto	870.2		80.2	143,9	136.6	713.2	0.009	0.004
Lemuru fish flour		1714.4		162.4	374.			

Conclusion

Lemuru presto fish and lemuru fish meal are highest in omega-3 levels (870.2 and 1714.4 mg/100 g) and DHA levels (713.2 and 1274.0 mg/100 g). The fatty acid content of lemuru fish meal is higher than that of lemuru presto fish. Lemuru fish is safe to consume because its Pb and Hg levels are almost undetectable.

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Parental and In-Laws Support: Correlation Study of Characteristics in Postpartum Mothers

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Abstract

Purpose: To describe the support of parents and in-laws, and to determine the correlation between characteristics and the support of parents and in-laws in postpartum mothers.

Methodology: This type of research uses a quantitative descriptive method. In this study, data collection used a social support questionnaire by measuring the support of parents and in-laws. Respondents obtained for this study amounted to 61 postpartum mothers. Samples were taken by purposive sampling technique.

Results: In this study, it can be described that support from parents is more often given to postpartum mothers. This can happen because respondents often contact their biological parents compared to contacting their parents-in-law. Most of the respondents live with their family of origin and their husband more than they live with their in-laws. Some of the characteristics in this study did not show significant results or had a weak relationship with the support of parents and in-laws. Only the categorical characteristics of working on parental support show that there is a significant relationship between working characteristics and parental support because the results of the P value show a value of p = 0,047. While other characteristics such as village, education level, marital status, ethnicity, living together, type of work, profession, intention to get pregnant, desire to get pregnant, complications, method of delivery, and baby nutrition showed insignificant results because the result was P value > 0,05.

Applications/Originality/Value: The difference between this study with previous research lies in the research respondents, research time, measurement tools, literature used, the theory used, and research results.

Keyword: *Postpartum, Parental and In-laws Support, Characteristics*

Introduction Section

It should be a joyful experience for women to give birth and raise a child, with the presence of a child being a blessing for every family. Beyond just being happy, every woman's pregnancy has a profound emotional impact. A woman will undergo significant changes during pregnancy and after giving birth, including significant adjustments to both her physical and psychological well-being. Consequently, preparing physically and mentally for pregnancy and childbirth is necessary (Sulistyaningsih, 2020). Mother's psychological changes, such as anxiety, dread, and worry, are quite significant. (Rosdiana, 2018). Many moms go through phases of transition, including both physical and psychological ones, such as the postpartum period (puerperium), which begins after the placenta is delivered and lasts for about 6 weeks until the uterine organs return to their pre-pregnancy form. A time of transition, the postpartum period can be stressful for new moms and their families. Postpartum care is sometimes overlooked as a necessary component of women's health because this transitional period is frequently viewed as brief or trivial (Rahayuningsih, 2018). The mother will go through physical and psychological changes at this period, including alterations to her reproductive system and other bodily functions. (Sulistyaningsih, 2020). The puerperium is a remarkable time of transition that can be difficult for couples expecting their first child. The first child's birth is a challenging period (Rahayuningsih F. , 2015). Although the addition of a new family member causes major happiness. A relationship may be going through a challenging

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and confusing time at this point, which could result in a crisis. Mom and dad experience an equal amount of changes in the puerperium as they adjust to new roles and situations (Ambarwati, 2019). However, not all postpartum mothers can go through the adaptation to the postpartum period smoothly (Wibisono, 2018). Age, socioeconomic, ethnic, cultural, and demographic characteristics all have a significant impact on mothers' capacity for adaptation. During the adjustment to motherhood, a feeling of competence and contentment with the parental role can have a significant impact on the caliber of parenting conduct (WHO, 2021). The effort of nurses is required to increase the capacity of mothers and all family members to adapt.

The postpartum period is one of the most significant stressful situations in a woman's life (Kaveh, 2022). Women's lives and quality of life change as a result of a variety of factors, including the birth of children, accepting a new role as a mother, and experiencing challenging times and stressors that make it difficult for them to adequately care for themselves and their families (Grylka-Baeschlin, 2018) (Shimpuku Y, 2021). A mental illness known as postpartum depression (PPD) can have detrimental effects on both the mother and the unborn child. Children with untreated postpartum depression may experience cognitive, behavioral, social, or psychological issues (or a combination of two or more of the initial problems) (Yang X, 2020).

The mother's social life, marital relationship, parental confidence, and relationships with parents and other people may all suffer as a result of postpartum depression. Symptoms of postpartum depression typically start to manifest in women within the first 12 weeks after giving birth. Family members can be impacted by postpartum depression in a new mother, in addition to the mother, child, or both. Some potential symptoms of postpartum depression include challenges with the emotional bond between mother and child, learning how to care for a newborn, and the parental role. Low socioeconomic status, an unplanned or undesirable pregnancy (or both), a troubled marriage, a lack of social support, an unstable maternal mood, low self-esteem, general stress, parenting-related stress, and having high levels of anxiety during pregnancy can all contribute to (or worsen) postpartum depression in mothers (Yang X, 2020).

For new mothers, giving birth is a big life event that requires missing work or school, interacting with the baby's requirements and issues, experiencing physical pain, and lacking time for social activities. As a result, women greatly benefit from social support, especially from family members (Qi, 2022). The adaptation of women to motherhood requires social assistance (Rahayuningsih F. H., 2015). All kinds of material and moral support offered by certain social groups are considered social support. Support for parents and in-laws in terms of child care and responsibility, assistance with household chores, and social and emotional support for the mother are only a few examples of the social services available during the postpartum time.

Social support can also be thought of as a condition that is beneficial for people who are obtained from other people who are trusted, such as husband's family members, friends, relatives, or coworkers. Support is given so that individuals know that other people also care about them. Support is the involvement provided by family and friends to manage and care for themselves (Grylka-Baeschlin, 2018). Good support will enable the mother to lessen her discomfort and anxiety (Puspitasari, 2019).

Families are those who live in the same house, consisting of two or more people, due to marriage or adoption and blood relations (Rahayuningsih F. &., 2018). Parental support is the understanding that parents have a continual responsibility to educate and nurture their children by helping them with activities that will satisfy their requirements for attention, a safe and comfortable environment, and affection. Another meaning of parental support, meanwhile, is the way that a family acts and accepts its members, including through informational support, moral support, instrumental support, and emotional support. Parental support therefore refers to the idea of social support, which is generally understood as the presence or availability of people on whom we rely and who convey their love, value, and care to us (Yuliya, 2019). Parental support is defined as assistance that people receive from other people or surrounding groups, which makes the individual feel at ease, loved, and appreciated. This is one way in which parents can provide support to their children in the kind of attention and affection (Yörük, 2020). Additionally, there are many other kinds of help and support that can be received from people in a social network.

According to preliminary studies, some postpartum mothers continue to reside with their original families and spouses, as revealed by the results of interviews with a number of them. As a result, moms might get support from their parents throughout the postpartum time. Postpartum mothers are affected by how their parents and in-laws play a part in the family, especially if they share a home with them. This is because parents have a variety

of roles in the family, including those of educators, motivators, role models, friends, supervisors, and counselors. Parents and parents-in-law should advise and accompany postpartum women as part of their duty as educators in the support system (Sulistyaningsih, 2020). The purpose of this study was to describe the support of parents and parents-in-law, and to determine the correlation between characteristics and the support of parents and parents-in-law in postpartum mothers.

Method

A cross-sectional study using a questionnaire was conducted in the working area of the Kartasura Health Center, Sukoharjo district. The study population consisted of postpartum women who gave birth between August 28 and October 15, 2022, in the Kartasura Health Center's service area and who met the inclusion criteria of being healthy, willing to participate in the study, having biological parents and in-laws, and being free of visual and auditory impairments. This type of study uses a quantitative descriptive method. The support of parents and in-laws is the study's independent variable. For the purpose of performing this study, 61 responses were obtained. Using the purposive sampling method, samples were taken.

The questionnaire used in this study was *the Postpartum Social Support Questionnaire* (PSSQ) from Miller which consisted of 20 questions about parental and in-law support. This questionnaire has been tested for validity and reliability, the results obtained are 19 valid questions and one invalid question is omitted. The social support questionnaire was translated from English into Indonesian and tested on a group of postpartum mothers to ensure understanding of the questions and clarity of the scale points. Detailed characteristics of this questionnaire include name, age, level of education, marital status, ethnicity, living together, type of work, work, profession, baby born in weeks, how many pregnancies, how many births, number of living children, intention to get pregnant, and desire to get pregnant. This questionnaire requires respondents to rate their social support, especially the support of their parents and in-laws as a whole on a 5-point scale (ranging from 1 to 5). Respondents were asked to rate the support of their parents and in-laws at home as a whole on daily life during the postpartum period (where 1 = never and 5 = always).

This research was conducted after obtaining approval from the Ethics Commission of Dr. Moewardi number 1.268/X/HREC/2022. In this study, respondent's confidentiality and anonymity were guaranteed. The respondents voluntary and written consent was used to enlist their participation in this investigation. All respondents were given a thorough explanation of the research's purpose and had the option to willingly engage in it without facing any negative consequences.

Result and Discussion

The data that has been obtained is entered into the *Excel* and then exported to the SPSS spreadsheet for data calculation. Furthermore, validity and reliability tests were carried out to find out questions that showed valid results on the questionnaire. The results of the validity test and Cronbach's alpha showed that of the 20 questions in the questionnaire, 1 question was invalid, namely the question in the parental support questionnaire number 4 with the question "Do you feel you can count your parent's financial assistance, if you need it?" which was then removed. Furthermore, the authors conducted a *Pearson Product Moment correlation* between the numerical data of the characteristics of the respondents and the support of their parents and parents-in-law which aims to determine the relationship between the characteristics of the respondents and the support of their parents and parents-in-law. The author also conducted an *ANOVA* between the categorical data of respondents with the support of their parents and parents-in-law which aims to determine the differences in the characteristics of respondents with the support of their parents and parents-in-law.

Table 1. Distribution of Descriptive Analysis of Parental Support Questionnaire Results

No.	Question	Mean	Std. Deviation

No.	Question	Mean	Std. Deviation
1.	How often will you contact your biological parents?	4,26	0,929
2.	How often will your parents wait for the baby?	3,84	1,052
3.	How often will your parents take care of the baby?	3,61	1,173
4.	How often will your parents help with other practical matters (eg homework, etc.)?	3,56	1,285
5.	How often you and the baby will spend time with your parents?	3,61	1,229
6.	How often will you vent, tell the problem to your parents?	3,03	1,354
7.	How often will your parents vent, tell you problems?	3,05	1,189
8.	How often will your parents give advice or guidance about the baby?	3,87	1,218
9.	How often will you discuss your concerns about the baby with your parents?	3,80	1,263
10.	In general, do you feel that your parents will be supportive after the baby's birth?	4,51	0,868

Based on the results of statistical tests, question number 1 with the question "How often will you contact your biological parents?" shows a result of 4,26 which can be interpreted that respondents contact biological parents often.

Based on the results of statistical tests, questions number 2-9 on parental support show an average result of 3,00 which can be interpreted that parental support is given to respondents occasionally.

Based on the results of statistical tests, question number 10 with the question "In general, do you feel that your parents will support you after the birth of the baby?" shows a result of 4,51 which can be interpreted that parents often provide support after the birth of a baby.

Table 2. Distribution of Descriptive Analysis of In-law Support Questionnaire Results

No.	Question	Mean	Std. Deviation
1.	How often will you contact your in-laws?	3,69	1,191
2.	How often will your in-laws help care for the baby?	2,95	1,396
3.	How often will your in-laws babysit your baby?	2,74	1,389
4.	Do you feel you can count on your in-laws for financial assistance if you need it?	2,41	1,407

No.	Question	Mean	Std. Deviation
5.	How often will your in-laws help out with other practical matters (eg homework, etc.)?	2,77	1,359
6.	How often will you and the baby spend time with your in-laws?	2,82	1,397
7.	How often will you vent, share stories, tell your problems to your in-laws?	2,33	1,338
8.	How often does your in-laws confide in you?	2,33	1,207
9.	How often will your in-laws provide advice or guidance about your baby?	3,13	1,431

Based on the results of statistical tests, question number 1 with the question "How often will you contact your in-laws?" shows a result of 3,69 which can be interpreted that the respondent contacts the in-laws occasionally.

Based on the results of statistical tests, questions number 2-8 on the in-law support questionnaire show an average result of 2,00 which can be interpreted that the in-law support given to respondents is rarely done.

Based on the results of statistical tests, question number 9 with the question "How often will your parents-in-law give advice or guidance about your baby?" shows a result of 3,13 which can be interpreted that parents-in-law provide advice or guidance about babies done occasionally.

Using a social support questionnaire, this study tries to characterize how parents and parents-in-law help postpartum mothers. It is known that postpartum mothers receive parental assistance more frequently based on the results of tables 1 and 2. There are several explanations for why parental assistance is more frequently offered than in-law support, one of which being the fact that some postpartum moms remain with their original families and interact more frequently with them.

Based on research, support from parents is more often obtained by postpartum mothers because in table 1 with the question "How often will you contact your biological parents?" shows an average result of 4,26 which is greater than in table 2 with the question "How often will you contact your parents-in-law?" which only shows a result of 3,69. The presence of postpartum mothers, the majority of whom live with their husbands and families of origin, ensures that the majority of postpartum mothers receive the best possible family support (Saufika, 2019). Even while the support from in-laws was a kind of social support, some respondents claimed that they weren't living at home with them. Others claimed that they felt uncomfortable and distant from their in-laws, which made for less interaction between the two (Handayani, 2017).

Table 3. Correlation and Regression Analysis of Numerical Characteristics of Parental and In-law Support

No.	Variable	Mean Median	Min - Max	r	R^2	P value
1.	Age	29 28	20-41	0,198	0,039	0,126
2.	Babies born in weeks	39	36-42	0,177	0,031	0,173

No.	Variable	Mean / Median	Range			
		39				
3.	How many pregnancies	2 / 2	1-5	0,028	0,001	0,829
4.	How many births	2 / 2	1-5	0,024	0,001	0,853
5.	Number of living children	2 / 2	1-5	0,055	0,003	0,673
6.	Birth weight	3161 / 3100	2200-4740	0,003	0,000	0,979

Based on the table above, the results of the analysis show that the average age is 29 years and the median is 28 years. The youngest is 20 years old and the oldest is 41 years old. The relationship between the age of postpartum mothers and the support of parents and in-laws shows a weak relationship (r = 0,198) and has a positive pattern, meaning that the older the mother is, the higher the support of parents and in-laws gets. Statistical results showed that there was no significant relationship between postpartum mother's age and the support of parents and in-laws (p = 0,126). 20-35 years is the safe gestational age range for women. Under 20 years old and over 35 years old are the vulnerable ages for pregnancy (Rahayuningsih F. B., 2021).

Babies are born when the gestational age is between 36-42 weeks with an average delivery at 39 weeks. The relationship between gestational age at birth of the baby and the support of parents and parents-in-law showed a weak relationship (r = 0,177) and had a positive pattern, meaning that the older the gestational age at the birth of the baby, the greater the support parents and parents-in-law got. Statistical results showed that there was no significant relationship between gestational age at birth and the support of parents and in-laws (p = 0,173).

The mean and median of the second pregnancy is 2 times with a minimum of 1 pregnancy and a maximum of 5 times. The relationship between the respondents' pregnancies and the support of their parents and in-laws showed a weak relationship (r = 0,028) and had a positive pattern, meaning that the more pregnancies the number of pregnancies increased, the greater the support from parents and in-laws they received. Statistical results showed that there was no significant relationship between pregnancy and the support of parents and in-laws (p = 0,829).

Baby births obtained the average and median results of 2 times with births occurring at least 1 times and a maximum of 5 times. The relationship between the birth of a baby and the support of parents and parents-in-law shows a weak relationship (r = 0,024) and has a positive pattern, meaning that the more the number of babies born, the higher the support from parents and parents-in-law will get. Statistical results showed that there was no significant relationship between the number of babies born and the support of parents and in-laws (p = 0,853).

The average and median number of living children is 2 with the minimum number of living children being 1 child and the maximum being 5 children. The relationship between the number of living children and the support of parents and parents-in-law shows a weak relationship (r = 0,055) and has a positive pattern, meaning that the more children there are, the greater the support parents and parents-in-law get. Statistical results showed that there was no significant relationship between the number of living children and the support of parents and in-laws (p = 0,673).

The mean birth weight was 3161 grams and the median was 3100 grams, with the smallest birth weight being 2200 grams and the heaviest birth weight being 4740 grams. The relationship between birth weight and parent-in-law support shows a weak relationship (r = 0,003) and has a positive pattern, meaning that the more the birth weight of the baby, the greater the support from parents and in-laws. Statistical results showed that there was no significant relationship between birth weight and the support of parents and in-laws (p = 0,979).

According to research (Saufika, 2019) up to 46% of postpartum women at the Yogyakarta City Health Center experienced anxiety brought on by a variety of causes. The risk factors for maternal age, parity, and family social support have a substantial impact on the incidence of anxiety in postpartum moms at the Yogyakarta City Health Center. These risk factors are what affect the incidence of anxiety in postpartum mothers the most. At the health facility in the Yogyakarta City working area, educational risk factors, maternal employment status factors, type of delivery factors, undesired or planned pregnancies, and family economic status factors do not significantly affect the incidence of anxiety in postpartum mothers (Saufika, 2019). The lack of available social support, according to the author, is to blame for the symptoms described as making postpartum women anxious, worried, and depressed. Postpartum mothers who live far from their parents or in-laws or some of them don't have parents anymore may experience a lack of attention or support from them.

Table 4. Distribution of Respondent Categorical Data

No.		Variable	Frequency (n = 61)	Percentage (%)
1.	Village	Wirogunan	3	4,9
		Singopuran	2	3,3
		Ngabeyan	5	8,2
		Kartasura	7	11,5
		Ngadirejo	4	6,6
		Ngemplak	5	8,2
		Pucangan	8	13,1
		Gumpang	9	14,8
		Makamhaji	9	14,8
		Gonilan	5	8,2
		Kertonatan	3	4,9
		Pabelan	1	1,6
2.	Level of education	Junior high school	5	8,2
		High school	34	55,7
		Undergraduate	22	36,1
3.	Marital status	Divorced	15	24,6
		Married	46	75,4
4.	Ethnicity	Non Javanese	1	1,6

No.		Variable	Frequency (n = 61)	Percentage (%)
		Javanese	60	98,4
5.	Living together	Origin family	8	13,1
		Husband	53	86,9
6.	Type of work	Work	25	41,0
		Not working	36	59,0
7.	Work	Not work	30	49,2
		Private sector	28	45,9
		Public sector	3	4,9
8.	Profession	Laborer	4	6,6
		Trader	6	9,8
		Private sector	7	11,5
		Teacher	5	8,2
		Housewife	37	60,7
		Health workers	2	3,3
9.	Pregnant intention	Not planning	25	41,0
		Planning	36	59,0
10.	Desire to get pregnant	Undesirable	12	19,7
		Ambivalent	3	4,9
		Wanted	46	75,4
11.	Complication	Yes	6	9,8
		No	55	90,2
12.	How to give birth	Sectio caesarea	27	44,3
		Normal	34	55,7
13.	Baby Nutrition	Formula milk	2	3,3
		Breast milk + Formula	13	21,3
		Breast milk	46	75,4

Based on the table above, there are a total of 61 respondents. In the column it can be seen that most of the respondents came from the villages of Gumpang and Makamhaji with a total of 9 people (14,8%). In the level

of education column there are 5 mothers with junior high school education level. The proportion can be seen in the percentage column, in the column above there are 8,2% of mothers with junior high school education. The distribution according to the level of education of the respondents was almost even for each level of education. The highest number of respondents were those with high school education, namely 34 people (55,7%), while for junior high school education (8,2%) and undergraduate (36,1%). From marital status it can be seen that there are 15 mothers who have divorced their husbands/partners which shows a percentage of 24,6%. The distribution according to marital status of the respondents was mostly married, namely 46 people (75,4%). Almost all respondents came from the Javanese tribe with a percentage of 98,4%. There are 8 mothers who live with their original families which shows a percentage of 13,1%. The distribution according to living with the most respondents was living with their husbands, namely 53 people (86,9%). A total of 25 working mothers with a percentage of 41,0%. The type of work most of the respondents did was not work, namely 36 people (59,0%). Mothers who choose not to work in the private or public sector can be seen in the percentage column, there are 49,2%. Distribution according to working respondents is almost the same for not working and private. The fewest respondents were working in the country, namely 3 people (4,9%), while not working (49,2%) and the private sector (45,9%). Most of the respondents' professions were housewives, namely 37 people (60,7%), while laborers (6,6%), traders (9,8%), private sector (11,5%), teachers (8,2%) %), and health workers (3,3 %). Some of the respondents planned pregnancy with a percentage of 59,0% and as many as 73,4% wanted their pregnancy. As many as 90,2% of respondents did not experience complications during pregnancy. The number of respondents who gave birth normally was 34 people (55,7%) and 75,4% of respondents still gave exclusive breastfeeding to their babies.

Table 5. Statistical Test Results for Respondent's Categorical Characteristics

No.	Variable	Mean	SD	95 % CI	P value
1.	**Village (Parents)**				
	Wirogunan	29,67	7,767	10,37 – 48,96	0,736
	Singopuran	34,00	18,385	-131,18 – 199,18	
	Ngabeyan	41,40	7,021	32,68 – 50,12	
	Kartasura	36,86	9,263	28,29 – 45,42	
	Ngadirejo	40,50	7,594	28,42 – 52,58	
	Ngemplak	30,60	14,639	12,42 – 48,78	
	Pucangan	39,88	9,125	32,25 – 47,50	
	Gumpang	36,89	5,622	32,57 – 41,21	
	Makamhaji	38,44	8,604	31,83 – 45,06	
	Gonilan	36,00	8,155	25,87 – 46,13	
	Kertonatan	38,67	8,505	17,54 – 59,79	
	Pabelan	35,00	-	-	
	Village (In-Laws)				
	Wirogunan	27,33	8,505	6,21 – 48,46	0,832

No.	Variable	Mean	SD	95 % CI	P value
	Singopuran	15,50	0,707	9,15 – 21,85	
	Ngabeyan	19,20	8,899	8,15 – 30,25	
	Kartasura	25,43	6,901	19,05 – 31,81	
	Ngadirejo	24,75	11,026	7,20 – 42,30	
	Ngemplak	26,20	14,856	7,75 – 44,65	
	Pucangan	23,38	14,172	11,53 – 35,22	
	Gumpang	27,22	8,599	20,61 – 33,83	
	Makamhaji	29,33	9,434	22,08 – 36,58	
	Gonilan	22,60	5,128	16,23 – 28,97	
	Kertonatan	25,67	8,293	-10,02 – 61,35	
	Pabelan	32,00	-	-	
2.	**Level of education (Parents)**				
	Junior high school	39,00	7,714	29,42 – 48,58	0,808
	High school	37,38	7,992	34,59 – 40,17	
	Undergraduate	36,32	10,444	34,87 – 39,39	
	Level of education (In-Laws)				
	Junior high school	24,80	13,274	8,32 – 42,28	0,888
	High school	24,68	10,648	20,96 – 28,39	
	Undergraduate	26,00	8,275	22,33 – 29,67	
3.	**Marital status (Parents)**				
	Divorced	38,13	6,958	34,28 – 41,99	0,617
	Married	36,80	9,396	34,01 – 39,59	
	Marital status (In-Laws)				
	Divorced	26,47	12,200	19,71 – 33,22	0,563
	Married	24,74	9,178	22,01 – 27,46	
4.	**Ethnicity (Parents)**				
	Non Javanese	36,00	-	-	0,898

No.	Variable	Mean	SD	95 % CI	P value
	Javanese	37,15	8,896	34,85 – 39,45	
	Ethnicity (In-Laws)				
	Non Javanese	29,00	-	-	0,700
	Javanese	25,10	9,994	22,52 – 27,68	
5.	**Living together (Parents)**				
	Origin family	38,13	9,372	30,29 – 45,96	0,736
	Husband	36,98	8,822	34,55 – 39,41	
	Living together (In-Laws)				
	Origin family	23,13	6,749	17,48 – 28,77	0,537
	Husband	25,47	10,332	22,62 – 28,32	
6.	**Type of work (Parents)**				
	Work	38,28	8,815	34,64 – 41,92	0,401
	Not working	36,33	8,864	33,33 – 39,33	
	Type of work (In-Laws)				
	Work	24,36	9,416	20,47 – 28,25	0,602
	Not working	25,72	10,355	22,22 – 29,23	
7.	**Work (Parents)**				
	Not working	34,80	8,467	31,64 – 37,96	0,047
	Private sector	38,68	8,861	35,24 – 42,11	
	Public sector	46,00	1,732	34,87 – 39,39	
	Work (In-Laws)				
	Not working	24,47	8,435	21,32 – 27,62	0,286
	Private sector	24,96	11,104	20,66 – 29,27	
	Public sector	34,00	11,533	5,35 – 62,65	
8.	**Profession (Parents)**				

No.	Variable	Mean	SD	95 % CI	P value
	Laborer	34,50	4,435	27,44 – 41,56	0,174
	Trader	42,83	4,956	37,63 – 40,03	
	Private sector	36,86	10,172	27,45 – 46,26	
	Teacher	44,60	5,367	37,94 – 51,26	
	Housewife	35,68	8,810	32,74 – 38,61	
	Health working	34,50	19,092	-137,03 – 206,03	
	Profession (In-Laws)				
	Laborer	21,00	13,038	0,25 – 41,75	0,549
	Trader	27,17	11,873	14,71 – 39,63	
	Private sector	24,43	10,245	14,95 – 33,90	
	Teacher	31,20	8,198	21,01 – 41,38	
	Housewife	24,24	9,209	21,17 – 27,31	
	Health working	32,00	18,385	-133,18 – 197,18	
9.	**Pregnant intention (Parents)**				
	Not planning	39,32	8,390	35,86 – 42,78	0,107
	Planning	35,61	8,910	32,60 – 38,63	
	Pregnant intention (In-Laws)				
	Not planning	24,04	10,039	19,90 – 28,18	0,466
	Planning	25,94	9,908	22,59 – 29,30	
10.	**Desire to bet pregnant (Parents)**				
	Undesirable	40,67	9,403	34,69 – 46,64	0,192
	Ambivalent	41,00	7,550	22,25 – 59,75	
	Wanted	35,96	8,597	33,40 – 38,51	
	Desire to get pregnant (In-Laws)				
	Undesirable	23,33	12,752	15,23 – 31,44	0,720
	Ambivalent	23,33	6,028	8,36 – 38,31	
	Wanted	25,76	9,405	22,97 – 28,55	

No.	Variable	Mean	SD	95 % CI	P value
11.	**Complication (Parents)**				
	Yes	38,00	6,261	31,43 – 44,57	0,802
	No	37,04	9,098	34,58 – 39,50	
	Complication (In-Laws)				
	Yes	20,67	7,737	12,55 – 28,79	0,246
	No	25,65	10,069	22,93 – 28,38	
12.	**How to give birth (Parents)**				
	Sectio caesarea	38,26	8,169	35,03 – 41,49	0,378
	Normal	36,24	9,332	32,98 – 39,49	
	How to give birth (In-Laws)				
	Section caesarea	23,70	8,943	20,17 – 27,24	0,310
	Normal	26,32	10,625	22,62 – 30,03	
13.	**Baby Nutrition (Parents)**				
	Formula milk	47,50	0,707	41,15 – 53,85	0,131
	Breast milk + Formula	39,15	9,191	33,60 – 44,71	
	Breast milk	36,11	8,616	33,55 – 38,67	
	Baby Nutrition (In-Laws)				
	Formula milk	26,00	2,828	0,59 – 51,41	0,737
	Breast milk + Formula	23,23	12,397	15,74 – 30,72	
	Breast milk	25,67	8,823	22,88 – 28,47	

Based on the table above, it is known that postpartum mothers living in 12 villages obtained values of parental support (p = 0,736) and parent-in-law support (p = 0,832). It means that at an alpha of 5%, it can be concluded that there is no difference in the support of parents and parents-in-law for postpartum mothers in the 12 villages.

The education level of postpartum mothers was obtained by the value of parental support (p = 0,808) and parent-in-law support (0.888). It means that at alpha 5%, it can be concluded that there is no difference in the support of parents and parents-in-law on the education level of postpartum mothers. The results of this study do not match with research (Nurfatimah, 2018) which indicates that there is a strong relationship between education level and assistance from parents and parents-in-law for postpartum moms, with p =

0,017. According to the study, mothers with greater levels of education will find it easier to accept advice or information provided to help them solve their problems, such as psychoeducation. This may be the result of social pressure and a conflict between a highly educated woman's duty as a housewife and mom and the demands of being a woman who wants to work or engage in activities outside the home (Nurfatimah, 2018).

The marital status of postpartum mothers, both married and divorced, obtained the value of parental support (p = 0,617) and parent-in-law support (p = 0,563). Means alpha is 5%, it can be concluded that there is no difference in the support of parents and in-laws on the marital status of postpartum mothers. According to research (Hu, 2019) a poor relationship with your in-laws and thinking of your pregnancy as a chore are linked to more depression throughout your third trimester. Additionally, for pregnant women in the second trimester depression group, having a terrible marriage in the previous three months is a predictive factor (Hu, 2019).

It is known that postpartum mothers who come from Javanese and non-Java ethnic groups get the value of parental support (p = 0,898) and in-law support (p = 0,700). Means alpha is 5%, which means that there is no difference in the support of parents and in-laws towards the ethnic origin of postpartum mothers. In this study, there were 98% of postpartum mothers who came from the Javanese tribe and 2% came from the ethnic group outside Java. The results of the ethnic characteristics test showed that there was no difference between the support of parents and in-laws with the ethnic origin of postpartum mothers. Because the Javanese people believe that the difficulties experienced by mothers after giving birth are a component that every woman should undergo in the notion of becoming a mother, societal help for mothers is frequently withheld (Wiyanto, 2021).

Statistical results based on living together showed the value of parental support (p = 0,736) and in-laws support (p = 0,537). Means alpha is 5%, it can be concluded that there is no difference in the support of parents and in-laws for postpartum mothers who live with their husbands or with their original family. Compared to women who only live with their husbands, postpartum women who live at home with their parents or in-laws are more likely to suffer from postpartum depression (Wang, 2017).

The type of work for postpartum mothers who worked or did not work obtained the value of parental support (p = 0,401) and parent-in-law support (p = 0,602). Means alpha is 5%, it can be concluded that there is no difference in the support of parents and in-laws for the type of work of postpartum mothers.

It is known that postpartum mothers who work in the private sector, state or not work get the value of parental support (p = 0,047) and parent-in-law support (p = 0,286). Means alpha is 5%, it can be concluded that there are differences in parental support for the characteristics of working postpartum mothers and there is no difference in in-laws support for the characteristics of working postpartum mothers.

Postpartum mother profession obtained the value of parental support (p = 0,174) and in-law support (p = 0,549). Means alpha is 5%, it can be concluded that there is no difference in the support of parents and in-laws for the profession of postpartum mothers. According to different researchers, having a job provides protection because of social support networks. Because of maternity leave, mothers and housewives can interact socially throughout the postpartum period. Returning to the workforce while experiencing difficulties between one's new position as a mother and one's prior employment can also be a risk factor and negatively affect social support (Vaezi, 2019).

Intention to conceive postpartum mothers who planned or did not plan obtained the value of parental support (p = 0,107) and parent-in-law support (p = 0,466). Means alpha is 5%, it can be concluded that there is no difference in the support of parents and parents-in-law on the intention to conceive postpartum mothers.

The desire to conceive for postpartum mothers was obtained by the value of parental support (p = 0,192) and parent-in-law support (p = 0,720). Means alpha is 5%, it can be concluded that there is no difference in the support of parents and in-laws towards the desire to conceive postpartum mothers.

Complications of pregnancy for postpartum mothers obtained the value of parental support (p = 0,802) and parent-in-law support (p = 0,246). Means alpha is 5%, it can be concluded that there is no difference in the support of parents and in-laws for complications of pregnant postpartum mothers.

How to give birth to postpartum mothers obtained the value of parental support (p = 0,378) and in-laws support (p = 0,310). Means alpha is 5%, it can be concluded that there is no difference in the support of parents and parents-in-law for how to give birth to postpartum mothers. Following the study by Houston et al., mothers who have caesarea sections despite wanting to give birth vaginally are more likely to experience PDD (Postpartum Depression) (Vaezi, 2019).

Nutrition for babies obtained the value of parental support (p = 0,131) and parent-in-law support (p = 0,737). Means alpha is 5%, it can be concluded that there is no difference in the support of parents and in-laws for nutrition for babies. The findings of the study conflict with research (Ickes, 2018) who discovered that babies of mothers who receive the most social support have a tendency to be well-nourished. Additionally, more social support among women was linked to baby nutrition in cross-sectional research carried out in Brazil and Vietnam (Ickes, 2018).

According to Table 5, statistical analysis of the categorical characteristics of parental and in-law support, working on parental responsibility doesn't appear to be different significantly from other characteristics including level of education, marital status, ethnicity, living together, type of work, profession, intention to become pregnant, desire to become pregnant, complications, method of delivery, and infant nutrition. Housewives are frequently stressed out and long for a job due to monotonous activities (Ananda, 2021). Whether they work full-time or not, those who generate goods or services with the intention of earning money or making a profit are considered to be employed according to the Labor Force Concept. According to Sjofiatun, working women's status had a big impact on maternity care in both rural and urban locations. Compared to housewives, mothers who work in the formal economy—public or private—have better access to health information. Both the mass media and coworker mates provided us with this information (Burhaeni, 2013).

Conclusion

The study shows that postpartum mothers receive parental support more frequently. This may occur when respondents speak with their biological parents more frequently than they do with their in-laws. Additionally, several respondents claimed to feel uneasy and distant from their in-laws, which made for less interaction between the two. Other respondents mentioned that they preferred to live with their spouses and families of origin rather than their in-laws. Some of the characteristics in this study showed insignificant results with the support of parents and in-laws. Only the categorical characteristics of working on parental support show that there is a significant relationship between working characteristics and parental support because the result is a P value < 0,05. The results of the P value in the ANOVA statistical test showed a value of p = 0,047. While other characteristics such as village, education level, marital status, ethnicity, living together, type of work, profession, intention to get pregnant, desire to get pregnant, complications, method of delivery, and baby nutrition showed insignificant results because the result was P value > 0,05. Having a job is a protective factor because of the network of social life. There is maternity leave, which makes the social life of mothers work together with housewives during the postpartum period. Returning to work and facing conflict between her new role as a mother and her previous role as an employee can also be a risk factor and can have a negative impact on her social support.

Ackowledgement

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Husband's Support for Postpartum Mothers: A Correlation Study Between Characteristics and Husband's Support For Postpartum Mothers

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Abstract

Purpose: To find out the description of husband's support for postpartum mothers in the Kartasura Health Center area.

Methodology: This study uses a quantitative descriptive method of research with a cross sectional approach. This study used the PSSQ (Postpartum Social Support Questionnaire) questionnaire consisting of 16 questions from Hopkins and Campbell (2008) which were translated into Indonesian.

Results The results of this study from 61 respondents found that all numerical characteristics showed no relationship with husband's support. Some categorical characteristics such as village, work, profession and intention to get pregnant show significant value with husband's support.

Applications/Originality/Value: The difference between this study and previous research is the number of respondents, time and place of research, literature, theory used. The research is planned for health workers as literature in providing health education about husband's support for postpartum mothers.

Keywords: husband support, postpartum mother

Introduction Section

The Maternal Mortality Rate (MMR) is a standard indicator for assessing the success of health development. The maternal mortality rate (MMR) is one of the Millennium Development Goals (MDGs) targets. The Maternal Mortality Rate will be reduced by three quarters in the period 1990-2015. The problem of maternal and infant mortality must be considered and handled optimally. Based on data obtained from the ASEAN on Millennium Development Goals, it shows that the Maternal Mortality Rate (MMR) is in the range of 305 per 100,000 live births. Meanwhile, according to WHO, every day 830 mothers in the world die from diseases/complications related to pregnancy and childbirth (Estuningtyas et al., 2020). In the Sustainable Development Goals (SDGs) or sustainable development Maternal Mortality Rate (MMR) is one of the national health indicators and the 2030 SDGs target where MMR decreases to 70 per 100,000 live births (Bappenas, 2013). In 2016 the MMR in Indonesia was still very high, reaching 359 per 100,000 live births, this figure was ranked first in Southeast Asia(Sri & Mubarokah, 2018).

Childbirth is a valuable experience in the entire span of a woman's life. The postpartum period is an extraordinary transition period and a challenge for couples who have just had their first child (Ambarwati & Ihtiarini, 2019). The transition to becoming a parent requires adjustments for a woman in dealing with her new activities and role as a mother to carry out her duties in caring for babies and daily tasks. During the postpartum period, a woman experiences changes in her physical, psychological, economic and social systems. Physical changes experienced in the form of changes in the reproductive organs and other organs of the body. The length of adaptation during the puerperium lasts up to about 6 weeks after giving birth. During the postpartum

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period some mothers are able to adjust well, but there are some mothers who are not able to adjust and eventually make them psychologically disturbed(Fitrah et al., 2019).

It is reported that the incidence of postpartum blues abroad (Japan) is high, namely 26-85%, where an estimated 20% of women who give birth experience postpartum blues(Miyansaski et al., 2014) Meanwhile, in Indonesia the incidence of postpartum depression is between 50-70% of women after childbirth(Sari et al., 2015). All mothers need love and attention and need to be known, need to be appreciated and need to get social support from their surroundings starting from pregnancy until after giving birth(Umrah & Asmawati, 2019). In short, the postpartum period is a very important stage in family life because both the mother and the surrounding environment can be affected both physically and psychologically. The postpartum period is also a time when there are changes in the need for social support and family relationships due to new roles and responsibilities(Akbay & Taşçı-Duran, 2018).

Preliminary interviews with 10 postpartum women respondents said that they were happy to have been blessed with children. The mother also said that family happiness was more complete because of the baby. Some mothers shared stories after the birth of their babies that they experienced physical and psychological changes such as a lack of confidence in their body shape after giving birth, difficulty sleeping and anxiety about the baby's condition which sometimes made the mother's appetite decrease. The multiparous mother said that even though she had previous experience, each child had a different condition.

With the various problems above, efforts are needed to strengthen mothers in terms of their physical and psychosocial health. Social support is a condition that is beneficial to individuals obtained from other people. One source of social support for mothers after giving birth comes from their partner (husband). As a companion, husbands play an important role in maternal health. Husband's social support can be realized as always encouraging, loving and always accompanying his wife. Husband's support is a simple way to reduce the incidence of postpartum depression in mothers who have just given birth.

The husband has a very important responsibility in all aspects, starting from pregnancy, childbirth to the puerperium. All forms of husband's actions and decisions affect the mother's health(Estuningtyas et al., 2020). Husband's support can be shown in various ways, such as giving peace to his wife, giving a touch, expressing words that motivate his wife (Puspitasari, 2020). Without husband's support for postpartum mothers, it will make mothers feel pressured and neglected. The pressure felt by the postpartum mother, if allowed to develop, will make the mother feel depressed, thereby affecting the baby's care. This study aims to determine the description of husband's support for postpartum mothers. Based on the background above, the researcher is interested in researching husband's support for postpartum mothers.

Method

Respondents

The sample in this study were postpartum mothers in the working area of the Kartasura Health Center. The sample was taken using a purposive sampling technique and the respondents obtained were 61 respondents who gave birth on August 28, 2022 to October 15, 2022 in the Kartasura Health Center Work Area who had inclusion criteria, namely not having physiological disorders, willing to be respondents, having biological parents and in-laws, have no visual or hearing impairments.

Research Instruments

This research uses a type of quantitative descriptive research method using a cross sectional approach. The variable in this study is husband's support. The measuring tool in this study used a questionnaire that was used in this study was the PSSQ (Postpartum Social Support Questionnaire) which consisted of 16 questions from Hopkins and Campbell (2008) which were translated into Indonesian. Each question has a 5 point rating option (1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = always). This questionnaire has been tested for validity with Pearson Correlations using a significance value of 5%, the results obtained from 16 questions are 10 valid questions and 6 invalid questions are eliminated. The reliability test is measured by Cronbach's alpha coefficient (> 0.70) and the result is 0.757 which means reliable.

Ethical Considerations

This research was conducted after obtaining approval from the Ethics Commission of RSUD Dr. Moewardi with number 1.277/X/HREC/2022. Respondents' anonymity and confidentiality were maintained in this study. Participation in this study was voluntary and by using a written consent form by the respondents. Respondents had the right to voluntarily participate in this study without any adverse consequences and were provided with a full description of the nature of the research.

Statistic Analysis

The data that has been obtained is entered into the Excel spreadsheet and then exported to the SPSS spreadsheet for data calculation. Data analysis was performed computerized using the SPSS version 25 program. Furthermore, a normality test was performed using the Kolmogorov-Smirnov to determine whether the data distribution was normal or not. After carrying out the normality test, the results show that the data is normally distributed. Furthermore, the authors conducted a Pearson Product Moment Correlation test between the numerical data of the characteristics of the respondents and the support of their husbands, which aims to determine the relationship between the characteristics of the respondents and the support of their husbands. The author also conducted an ANOVA test between categorical data of respondents with husband's support, which aims to determine the differences in the characteristics of respondents with husband's support.

Results and Discussion

Numerical Characteristics of Postpartum Mothers

Table 1. Distribution of Numerical Characteristic Data for Postpartum Mothers

Variabel	Mean Median	Min-Max
Age	28,89	20-41
Baby born in week	38,97	36-42
Pregnancy to	2,00	1-5
Birth to	1,95	1-5
Birth weight	361,13	2540-4700
Number of living children	1,92	1-5

Based on the distribution of table 1, the total number of respondents was 61 respondents, the results obtained were that the average age of the mother gave birth was 29 years, where the youngest age of the mother gave birth was 20 years and the oldest age when the mother gave birth was 41 years. Babies born when the gestational age is between 36-42 weeks with an average delivery at 39 weeks of gestation, the average pregnancy is in the second pregnancy, the average new mother gives birth 2 times, where at least the mother gives birth 1 time and the the most births were 5 times, with an average number of living children 2 and an average birth weight of 3161 gr.

Table 2. Characteristic Pearson Product Moment Test Results Respondents on Husband Support

Variabel	r	R	P Value
Age	0,123	0,15	0,344
Baby born in week	0,049	0,02	0,709
Pregnancy to	0,022	0,00	0,869

Birth to	0,008	0,00	0,950
Birth weight	0,091	0,08	0,487
Number of living children	0,047	0,02	0,721

Based on the statistical test results in table 2 above, it is known that the relationship between postpartum maternal age and husband's support shows a weak relationship (r=0.123) and has a positive pattern, meaning that the older the mother is, the higher the husband's support is. The results of statistical tests showed that there was no relationship between the age of the postpartum mother and husband's support (p=0.344). The research results presented by Kingston et al. (2012) which stated that the age of the mother with the support of her husband had a relationship with the occurrence of baby blues. This is because one of the reasons for the occurrence of baby blues is that the majority of mothers who are teenagers want their pregnancy to receive support from their families (husbands). Adolescent mothers are twice as likely to experience postpartum psychological disorders, because teenage mothers must face challenges when trying to complete the psychological development associated with adolescence and caring for babies.(Nadariah et al., 2021).

The relationship to how many weeks a baby is born with husband's support shows a weak relationship (r=0.049) and has a positive pattern, meaning that the higher the baby's birth week, the greater the husband's support the postpartum mother gets. The results of the statistical test found that there was no relationship between the week the baby was born when the mother gave birth and the husband's support (p=0.709). As the gestational age increases, it affects the attention and thoughts of pregnant women towards labor and postpartum which makes the mother's anxiety and fear increase in the third trimester. Husband's support is very important in reducing anxiety and fear. The emotional support provided by the husband can provide inner peace for his wife (Abidah *et al.*, 2021)

The relationship between the respondent's pregnancy and husband's support shows a weak relationship (r=0.022) and has a positive pattern, meaning that the more pregnancies the mother has, the higher the husband's support. Statistical test results showed a weak significant relationship between postpartum pregnancy and husband's support (p=0.869). According to research by Rahayuningsih et al. (2021), in which respondents reported a minimum of 1st pregnancy and a maximum of 5th pregnancy, the parity of pregnant women can affect the psychological health of pregnant women, especially those who will facing childbirth. The first parity is risky, because it is the result of the first fertilization of the uterus, and the elasticity of the uterine muscles is still limited by the growth of the fetus. The first parity still doesn't understand what happens during the birth process, and often feels afraid.

The relationship between parity or birth of respondents with husband's support shows a weak relationship (r = 0.008) and has a positive pattern, meaning that the more mothers give birth, the higher the husband's support is obtained. p=0.950). This research is not in line with Machmudah's research (2010) which states that there is a relationship between parity and the incidence of post partum blues (p=0.000). Meanwhile, most pregnant women with parity of more than 1 tend to be more mentally and psychologically prepared because of the delivery process from previous pregnancies (Miyansaski et al., 2014)

The relationship between baby's weight at birth and husband's support shows a weak relationship (r=0.091) and has a positive pattern, meaning that the higher the baby's weight, the higher the husband's support. The statistical test results showed that there was no relationship between the baby's weight at birth and the husband's support (p=0.487). Pregnant women need their husband's support in all matters during pregnancy, one of which is the husband's support needed by accompanying ANC visits (Salam, 2021). During ANC visits, pregnant women will gain knowledge about improving nutrition during pregnancy which will have a good impact on improving fetal nutrition and the condition of the baby after birth later. In this case, instrumental support from the husband is needed, for example, to ensure the nutritional intake of pregnant women during pregnancy.

The relationship between the number of living children and husband's support shows a weak relationship (r=0.047) and has a positive pattern, meaning that the more children living, the higher the husband's support. The results of statistical tests found that there was no relationship between the number of living children and husband's support (p=0.721). A better relationship between spouses is found in couples who have higher family

income and fewer children (Pebryatie et al., 2022). The level of husband's or father's involvement in accompanying the mother's visit and delivery was greater among couples with a satisfying marital relationship.

Categorical Characteristics of Postpartum Mothers

Table 3. Distribution of Data on Categorical Characteristics of Postpartum Mothers

Variable		Frequency (N=61)	Percentage
Village	Wirogunan	3	0,3 %
	Singopuran	2	0,2 %
	Ngabeyan	5	0,5 %
	Kartasura	7	0,7 %
	Ngadirejo	4	0,4 %
	Ngemplak	5	0,5 %
	Pucangan	8	0,8 %
	Gumpang	9	0,9 %
	Makamhaji	9	0,9 %
	Gonilan	5	0,5 %
	Kertonatan	3	0,3 %
	Pabelan	1	0,1 %
Last Education	Junior High School	5	0,5 %
	Senior High School	34	3,4 %
	Bachelor	22	2,2 %
Marital status	Divorced	15	1,5 %
	Marry	46	4,6 %
Ethnic	Java	60	6,0 %
	Outside Java	1	0,1 %
Living together	Original Family	8	0,8 %
	Husband	53	5,3 %
Type of work	Working	25	2,5 %
	Doesn't Work	36	3,6 %
Working	Doesn't Work	30	3,0 %
	Private	28	2,8 %
	Public	3	0,3 %
Profession	Laborer	4	0,4 %
	Trader	6	0,6 %
	Private	7	0,7 %
	Teacher	5	0,5 %
	Housewife	37	3,7 %
	Health Workers	2	0,2 %
Intention to get pregnant	Not Planned	25	2,5 %
	Planned	36	3,6 %
Desire to get pregnant	Undesirable	12	1,2 %
	Ambivalent	3	0,3 %
	Desired	46	4,6 %
Pregnancy Complications	There is	6	0,6 %
	There isn't any	55	5,5 %
Method of delivery	Sectio Caesarea	27	2,7 %
	Normal	34	3,4 %
Baby Nutrition	Formula milk	2	0,2 %
	Breast Milk and Formula	13	1,3 %
	Breast Milk	46	4,6 %

Based on table 2 above, with a total of 61 respondents consisting of 12 villages in the Kartasura District area. The highest number of postpartum mothers were in the villages of Gumpang and Makam Haji (0.9%) and the fewest were in Pabelan Village (0.1%). Based on the level of education, the respondents were junior high school graduates (0.5%), high school graduates (3.4%) and undergraduate respondents (2.2%). It can be concluded that the majority of respondents graduated from senior high school. The most marital status is married (4.6%) and the least is divorced (1.5%). Based on ethnic origin, only respondents came from outside Java (0.1%) and most of the respondents came from the Javanese tribe (6.0%). Most of the respondents live with their husbands (5.3%), and respondents who live with their original families (0.8%). Respondents who work are (2.5%), and respondents who do not work are (3.6%). Distribution of types of work, mothers who do not work either in the private or state (3.0%), work in the private sector (2.8%) and work in the state (0.3%). Most of the respondents' professions were housewives (3.7%) and the least were health workers (0.2%). Intention to get pregnant, most of the respondents stated that their pregnancy was planned (3.6%) and the respondents chose unplanned pregnancy (2.5%). Desire to get pregnant, as many as (4.6%) of respondents are desired pregnancies, respondents who do not want to get pregnant (1.2%) and ambivalent (0.3%). Pregnancy complications, most of the respondents did not experience complications during pregnancy (5.5%) and those who experienced complications during pregnancy (0.6%). Method of delivery, respondents who chose the normal delivery method were (3.4%) and those who chose to give birth to Sectio Caesarea were (2.7%). Nutrition for babies, most of the respondents chose to give exclusive breastfeeding (4.6%), breast milk and formula (1.3%) and only formula milk (0.2%).

Table 4. Results of the Anova Test on Respondents' Characteristics of Husband's Support

	Variable	Mean	SD	95% CI	P Value
Village	Wirogunan	29,7	2,51661	23,4151-35,9183	0,041
	Singopuran	27	1,41421	14,2938-39,7062	
	Ngabeyan	32,4	2,30217	29,5415-35,2585	
	Kartasura	33,4	4,57738	29,1952-37,6619	
	Ngadirejo	36,3	6,07591	26,5819-45,9181	
	Ngemplak	37,2	4,32435	31,8306-42,5694	
	Pucangan	38,9	6,64267	33,3216-44,4284	
	Gumpang	35	4,09268	31,8541-38,1459	
	Makamhaji	35,9	3,88730	32,9008-38,8769	
	Gonilan	34,6	3,50714	30,2453-38,9547	
	Kertonatan	32,7	5,50757	18,9851-38,9547	
	Pabelan	41	-	-	
Last Education	Junior High School	33,2	3,11448	29,3329-37,0671	0,285
	Senior High School	34,3	4,79825	32,6788-36,0271	
	Bachelor	36,3	5,49400	33,7914-38,6632	
Marital status	Divorced	35,47	4,48596	32,9824-37,9509	0,638
	Marry	34,8	5,18195	33,2220-36,2997	
Ethnic	Java	33	.		0,700
	Outside Java	35	5,02862	33,6676-36,2657	
Living together	Original Family	35	3,54562	33,4904-37,9642	0,969
	Husband	35	5,20299	33,4904-36,3587	
Type of work	Working	36	5,68096	32,8950-37,5850	0.694
	Doesn't Work	34	4,52682	33,1906-36,2539	
Working	Doesn't Work	34,3	4,09948	32,7026-35,7641	0,004
	Private	34,7	5,20582	32,6957-36,7329	
	Public	44	2,64575	37,4276-50,5724	
Profession	Laborer	40	1,41421	37,7497-42,2503	0,002
	Trader	35,3	5,60952	29,4465-41,2202	
	Private	33,9	3,80476	30,3383-37,3760	
	Teacher	41,4	6,50385	33,3244-49,4756	
	Housewife	34	4,22615	32,5639-35,3820	

Variable		Mean	SD	95% CI	P Value
	Health Workers	29	2,82843	3,5876-54,4124	
Intention to get pregnant	Not Planned	33,3	4,46953	31,4751-35,1649	0,034
	Planned	36,1	5,08749	34,3342-37,7769	
Desire to get pregnant	Undesirable	32,8	5,20198	29,5282-36,1385	0,249
	Ambivalent	34,3	,57735	32,8991-35,7676	
	Desired	35,6	5,00550	34,0353-37,0082	
Pregnancy Complications	There is	36,2	3,65605	32,3299-40,0035	0,529
	There isn't any	34,8	5,12582	33,4143-36,1857	
Method of delivery	Sectio Caesarea	34,7	5,27073	32,5446-36,7147	0,675
	Normal	35,2	4,82714	33,4922-36,8607	
Baby Nutrition	Formula milk	36,5	3,53553	4,7345-68,2655	0,229
	Breast Milk and Formula	32,8	4,31753	30,2371-35,4552	
	Breast Milk	35,4	5,13250	33,9324-36,9807	

Based on the table above, it is known that postpartum mothers who live in 11 Kartasura villages obtained p = 0.041 at alpha 5%, it can be concluded that there are differences in husband's support for postpartum mothers in the 11 villages. The standard deviation for Pabelan Village is not shown in the table above since there was just one responder. The living environment affects the quality of life postpartum. Living in rural areas can provide social support and can improve postpartum quality of life. Social support that can be obtained by post partum mothers includes spousal support, parental support, in-law support and sibling or relative support(Nisak & Rahayuningsih, 2018).

Education is related to everything related to human development, including starting from physical development, health, skills, thoughts, feelings, will, social to the development of faith (Febriyanti, 2021). In this study, most postpartum mothers were high school graduates. It is known that the last education of postpartum mothers, namely junior high school, high school, bachelor degree, obtained p = 0.285 at alpha 5%, it can be concluded that there is no difference in husband's support for postpartum mothers based on last education. In Kartono's research (2007), in women who have higher education will face social pressure and role conflict, between demands as women who work or carry out activities outside the home, and their role as housewives and parents of their children (Sari et al., 2015).

Good marital status of postpartum mothers who are married and divorced obtained p = 0.638 at alpha 5%. It can be concluded that there is no difference in husband's support for postpartum mothers based on marital status. According to Perry, Hockenberry, Lowdermilk and Wilson (2010), one of the factors that influence depression in pregnancy is psychosocial factors. Psychosocial factors, for example, failure in marriage, lack of support from partners (Kusuma, 2019). According to Asrinah (2010), the role and participation of the husband/partner is very important to convince and give appreciation to the mother's new role (Umrah & Asmawati, 2019).

Most of the respondents came from the Javanese ethnicity, the results of statistical tests obtained p = at alpha 5%, it can be concluded that there was no difference in husband's support for postpartum mothers based on the ethnic origin of postpartum mothers. According research in Wiyanto & Ambarwati (2021), postpartum mothers are often not given social support because the Javanese people view that the difficulties experienced by postpartum mothers are a part that every woman should experience in terms of mothers. In addition, there is a patriarchal concept in Javanese culture that is still deeply rooted, where this concept forms the attitude of traditional gender roles in Javanese society which considers men to have a higher position than women. Even after giving birth, a wife is still required to carry out her role as a wife, while the husband has no responsibility

to do or help. Javanese husband or man has the view that he thinks his wife is not on the same level as himself and sees his wife as someone who must serve.

In this study it was found that postpartum mothers mostly lived with their husbands. After statistical tests it was found that there was no difference in husband support for postpartum mothers based on living together (p=0.969). This characteristic illustrates that husband's support for mothers and good support for mothers giving birth will have an impact on achieving a good quality of life for mothers giving birth. Support from husbands has a relationship to the welfare of postpartum mothers, for mothers in the postpartum period the most valuable person is the husband (Nisak & Rahayuningsih, 2018). Research conducted by Wang et al. (2017) revealed that women with the postpartum period who live at home with their parents or live with their in-laws tend to experience postpartum depression compared to women who only live with their husbands.

Respondents in this study were mostly mothers who did not work and were housewives, and the results of statistical tests based on work obtained p = 0.004, meaning that there were differences in husband's support for mothers who worked in the state, mothers who worked in the private sector, and mothers who did not work on both. Profession results obtained p = 0.002 which means there are differences in husband support for mothers who work as laborers, traders, private sector, teachers, housewives, health workers. The results of previous research by Sjofiatun (2000) in Kasanah (2017) stated that the status of working mothers had a significant influence on maternity care in rural and urban areas. Mothers who work in the formal sector, such as in offices, both public and private, have better access to health information than housewives. This information is obtained from friends at work and from the mass media. In addition, mothers who work formally will have their own income and supplement family income. Meanwhile, housewives who do not earn an income are very vulnerable to experiencing stress because the entire household financial economy is managed by the mother (Widya Ananda et al., 2021). According to the results of research by Arfianto et al.(2020), mothers who have a dual role, namely mothers who work and take care of babies, the support of their husbands can develop a positive mood and can be happier. Support from husbands affects the welfare of a working mother (Yosita et al., 2022)

Most of the respondents' pregnancies were planned pregnancies and desired pregnancies. After being tested statistically, the results of the intention to get pregnant (p = 0.034) means that there are differences in husband's support in planned and unplanned pregnancies and based on the desire to get pregnant, the results are obtained (p = 0.249) meaning that there is no difference in husband's support in the desired pregnancy, pregnancy is not desirable and ambivalent. According to Maliszewska et al. (2016), unplanned or unwanted pregnancies can have a negative impact on the emotional state of the mother. Even though the birth of the first child was highly desired and planned, in fact it still disturbed the psychological condition of the mother (Murwati et al., 2021)

Most of the respondents in this study did not experience complications and after statistical tests (p = 0.529) it could be concluded that there was no difference in husband's support for mothers who experienced pregnancy complications and those who did not experience complications. According to Manunter (2009) in research Nisak & Rahayuningsih (2018) pregnancy complications can increase the risk of postpartum depression and decrease the quality of life. Social support, especially from a husband/partner is a protective factor in protecting against the stress and worry that is felt during pregnancy (Przybyła-basista, 2017). The support or motivation given by the husband plays a very large role in determining the health status and level of knowledge of the mother in knowing the danger signs of pregnancy (Budiarti et al., 2018).

The method of delivery resulted in p=0.229 meaning that there was no difference in husband's support for women who gave birth normally and mothers who gave birth by Sectio Caesaria. The age range of respondents who gave birth in this study was 20-41, according to research from Mulyawati et al. (2011), concluded that women under 20 years of age and over 35 years of age are more at risk for sectio caesarea because under 20 years of age the uterus and pelvis are not well developed. Husband's support is one of the factors that determines the decision-making process regarding planned delivery readiness. Husband's support for the mother can provide peace of mind and feelings of pleasure so that it creates a positive attitude towards herself and her pregnancy(Farida et al., 2019).

Respondents mostly chose breast milk for their baby's nutrition and after statistical tests it was found that husband's support did not affect the provision of baby nutrition, either exclusive breastfeeding, breast milk and

formula or formula milk only (p=0.229). The results Fauzianty & Fitria Hadi (2022), there is a significant correlation between a mother's work and her husband's support for exclusive breastfeeding. Decreased so that the mother gave formula milk. In addition, the study said that 20% of mothers did not receive support from their husbands in providing exclusive breastfeeding. The factor that determines success and failure in providing baby nutrition in the form of exclusive breastfeeding is the husband's support. The mother may receive emotional support from the husband, which can increase the mother's confidence, comfort, and experience of success in breastfeeding. Therefore, the role of the husband in supporting the mother in providing nutrition for the baby in the form of exclusive breastfeeding is very important, the support from the husband can make the mother enthusiastic in carrying out her new role of caring for and providing breast milk for her baby.

Conclusion

In this study, a correlation study was described between husband characteristics and support for postpartum mothers. After the Pearson Product Moment correlation statistical test was carried out, it was found that numerical characteristics such as age, baby born in the 3rd week, pregnancy, birth, baby's weight at birth and number of living children showed no significant relationship with husband's support. Anova test between categorical characteristics and husband's support shows that several categorical characteristics such as village, work, profession and intention to get pregnant show significant value with husband's support. The results of the significance value in the village ANOVA statistical test (p=0.041), work (p=0.004), profession (p=0.002), intention to get pregnant (p=0.034). Meanwhile, for categorical characteristics such as recent education, marital status, ethnicity, living together, type of work, desire to get pregnant, complications of pregnancy, method of delivery, infant nutrition showed no significant relationship with husband's support.

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Support of Family and Friends for Postpartum Mothers of Vaginal Delivery and Sectio Caesarea

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Abstract

Purpose: This study is to compare the assistance that friends and family provide postpartum women based on caesarean section versus vaginal delivery.

Methodology: A questionnaire-style experimental design was used in this quantitative study kind. In this study, a cross-sectional strategy was adopted. On a scale of 1 to 5, respondents were asked to rate their level of satisfaction with family assistance. The support of family and friends is the study's variable.

Results: There is no discernible difference between moms who give birth naturally/vaginally and mothers who give birth by sectio caesarea/caesarean section in terms of the support from family and friends. Compared to mothers who gave birth via sectio caesarea/cesarean section, mothers who gave birth vaginally/normally received somewhat more encouragement from family and friends.

Applications/Originality/Value: My research is different from earlier studies in a number of ways. One of these is when seen from a location research, which obviously has distinct features in order to produce different results. In prior investigations, the variable indicators revealed more discrepancies.

Keywords: Support from family and friends for postpartum mothers, vaginal delivery, sectio caesarea delivery.

Introduction Section

Being a parent, particularly a mother, is not always a happy experience for every woman or husband and wife. After having a child, a mother's obligations might occasionally cause internal conflict in her, which can lead to emotional, cognitive, and behavioral issues. Some postpartum women develop psychiatric illnesses because they are unable to adapt to these changes (Ariyanti, 2020).

A mother's psychological adjustment process began while she was pregnant (Ariyanti, 2020). Women who give birth go through physiological and psychological changes that bring them back to their pre-pregnancy states, and they continue to face higher health risks, particularly in the first few weeks of puerperium. Physical hazards from anemia, infections, or difficulties with wound healing are among the postpartum health risks. Mental risks from stress, exhaustion, or anxiety are also included. Even postpartum depression throughout this time might produce varying degrees of morbidity (Kohler et al. 2018).

A study showed that 25% of moms who gave birth for the first time experienced severe postpartum depression, and roughly 20% of mothers who gave birth to their second child. Postpartum depression is a dangerous disorder. Obstetrical and postpartum issues, as well as a lack of family and friend support, are risk factors for postpartum depression. (Sari, 2020).

One of the things that seven postpartum mothers who were questioned for a pilot study in the Kartasura District indicated they required during the postpartum period was support in the form of help with baby care when they were exhausted. It is believed that helping postpartum mothers with various practical issues may lessen their load. This indicates that there is evidence linking significant social support to postpartum mothers' good physical and mental health. (Miller et al., 2012).

Social support, including family and friends, is crucial for postpartum mothers to preserve their physical and mental health when facing challenges. Positive social support can boost stress resistance, lessen functional impairment in people with depressive symptoms, and raise recovery chances, all of which can enhance general quality of life (Aryani, 2022).

Positive support for the mother comes from the attention and encouragement of family and friends. The response and support from family and friends, the connection between childbirth experience and hopes and aspirations, the mother's previous experience giving birth to and raising other children, and cultural influences are all elements that affect how successfully the transition to parenthood proceeds in the postpartum period. Their presence will assist mothers in adjusting to the numerous physical and psychological changes that take place in their bodies as well as the addition of new family members, which necessitates a period of adaptation and adjustment. Support from family and friends is highly important to give amusement for postpartum women, exchange information and experience in caring for children, and provide critical knowledge for mothers in dealing with changes in their lives (Khademi et al., 2022).

Some of your regular duties can be made simpler and less exhausting with the help of family and friends. Such assistance enables women to unwind and address their own difficulties, which lowers stress and improves health. Postpartum women have stated that the assistance with domestic tasks and child care they receive from their spouses and mothers will be crucial to them. This demonstrates the critical role that social support plays in coping with stress (Hajimiri, 2018).

The type of delivery has a substantial impact on the probability of postpartum depression, according to research by Ariyanti. Compared to vaginal mothers, Caesarean mothers are more likely to have postpartum depression (Ariyanthi Ririn, 2016). The type of normal or abnormal delivery (SC, forceps, vacuum, induction), according to Qiftiyah's research, had a significant impact on the occurrence of postpartum blues because psychological trauma brought on by unpleasant experiences could make it difficult for a person to properly care for both themselves and the baby. (2018) (Qiftiyah). Research on the type of delivery's impact on postpartum help from family and friends is still scant. As a result, the authors are motivated to conduct research for their project, which is termed "Family and Friend Support for Puerperal Mothers, Vaginal Delivery, and Sectio Caesarea in Kartasura District.".

Method

The methodology is quantitative research with an experimental design resembling a questionnaire. The Postpartum Social Support Questionnaire (PSSQ) from Miller, which consists of 15 items about family and friend support, is the tool used to measure parental and in-law support (Millerr et al., 2012). The validity and reliability of this questionnaire have been assessed, and the results indicate that 14 of the items are valid and one is missing. The reliability test evaluates the consistency of the contents of the research results, whilst the validity test examines the accuracy of the variables utilized in this study.

In this study, a cross-sectional strategy was adopted. On a scale of 1 to 5, respondents were asked to rate their level of satisfaction with family assistance. The support of family and friends is the study's variable.

Respondents

For this study, postpartum moms at the Kartasura Health Center in the Sukoharjo District were chosen at random. Postpartum moms who gave birth between August and October 2022 made up the study's population. Postpartum moms who gave birth between August and October 2022 made up the study's population. They were told of the objectives and justifications for the study, and those who provided informed permission were hired if they met the inclusion requirements. Postpartum mothers with a maximum age of 6 weeks who lived in the Kartasura Health Center area and were willing to participate in the study as subjects were the inclusion criteria or desired criteria. Respondents who were more than a certain amount of time after giving birth were excluded from this study, which was done with 54 postpartum mothers.

Ethical Considerations

After receiving Dr. Moewardi's consent from RSUD, this research was carried out. if. of the. of the the world. of the world. of the world. of the world.. of the. Participants in this study provided informed consent before completing the questionnaire; participation was optional. All participants had the right to a complete explanation of the research's purpose as well as the freedom to voluntarily participate in the study without fear

of negative consequences. The ability to leave the study at any moment and without explanation was assured to participants.

Statistic analysis

The resulting data were subjected to a descriptive statistical analysis. Prior to exporting the data to an SPSS spreadsheet for analysis, the information is entered into an Excel spreadsheet. After the data has been processed, a normality test is run to establish the prerequisites for performing a separate test. A separate test must be performed once the normality test results demonstrate that the data are normally distributed. Independent variables are used to differentiate the approaches' differences. Finding out if there is a difference in the level of family and friend support between women who give birth vaginally and women who give birth via cesarean section is the goal of conducting an independent T-test. While categorical data is shown as a percentage, continuous data is shown as the mean standard deviation.

A list of questions

Using a modified social support questionnaire created by Miller et al., the aim of this study is to examine the variations in family and friend support in postpartum women with normal delivery and sectio caesarea (Miller et el., 2012). To verify comprehension of the questions and clarity of the scale points, the modified Miller et al. social support questionnaire was translated into Indonesian and evaluated on a group of postpartum women in the Kartasura Region. Age, week of birth, cohabitation, delivery method, and pregnancy problems are just a few of the demographic information included in the program. The devised questionnaire was designed to allow patients to score on a 5-point scale how frequently their family helped them overall during the puerperium (ranging from 1 to 5, where 1 = never, 2 = rarely, 3 = sometimes, 4 = often, and 5 = always.

Results

Table 1 Numerical Data on Characteristic Distribution of Postpartum Mothers According to Sociodemography

	N	Min	max	Means		std. Deviation
	Statistics	Statistics	Statistics	Statistics	std. error	Statistics
Age	54	20	41	29	0.73	5,36
Baby born in week 2	54	36	42	39	0.167	1.23
Pregnancy Ke	54	1	5	2	0.13	0.95
Baby Birth Weight	54	2200	4740	3186,5	88.05	647.05

According to Table 1, the patients' ages ranged from 20 to 41 years, with a 29-year-old median age for all of them. The youngest birth occurs at 36 weeks and the oldest at 42 weeks; the average birth occurs at 39 weeks. The woman with her second pregnancy was the typical respondent, while the mother with her fourth pregnancy had the most pregnancies that were discovered throughout the study. The average birth weight of the child was 3186 grams, with the lowest and greatest weights being 2200 and 4740 grams, respectively.

Table 2 Categorical Data on Characteristic Distribution of Postpartum Mothers According to Birth History

No.	Characteristics	Amount	Percentage
1	**How to give birth**		
	Normal	27	2.7
	Sectio Caesarea	27	2.7
2	**Living together**		
	Live with real family	5	.5
	Lives with husband	49	4.9
3	**Pregnancy complications**		
	There is	6	.6

	There isn't any	48	4.8
4	**Type of work**		
	Working	31	3.1
	Doesn't work	23	2.3
5	**Last education**		
	JUNIOR HIGH SCHOOL	19	1.9
	SENIOR HIGH SCHOOL	30	3.0
	College	5	.5
6	**Baby Nutrition**		
	ASI	40	4.0
	Breast milk + formula	12	1.2
	Formula milk	2	.2

Table 2 shows that of all responders, 27 delivered naturally, and the other 27 underwent cesarean sections. 49 of the 54 respondents, as shown in the table above, are married, while five respondents are still living with their biological parents. Additionally noted in the table are the 48 postpartum women who did not encounter difficulties during pregnancy and the six postpartum mothers who did. 31 postpartum mothers did not work, whereas 23 did, depending on the type of work. Mothers with the most recent education, or those who had just graduated from high school, made up the largest group at 30, followed by those who had just completed junior high school and university, who numbered 19 and 5 respectively. Up to 40 infants received all of their daily sustenance from the mother in the form of breast milk.

Table 3 Normality and homogeneity tests are shown in

Variable	*p-values*	Information
Honor		
Normal Childbirth Mother	0.684	Normal
Mother giving birth to SC	0.252	Normal
Homogeneity		
Family and Friends Support	0.309	Homogeneous

The findings of the normalcy test are displayed in Table 3 above. According to the Lilliefors test, the p value (Sig) is 0.200 in two groups, where > 0.05 denotes that the data for each group is normally distributed. In groups 1 and 2, the P value for the Shapiro-Wilk test was 0.684 > 0.05 and 0.252 > 0.05, respectively. The Shapiro-Wilk test indicates that both groups are regularly distributed as all > 0.05. The homogeneity test's findings, which show whether or not the variance between the first and second data sets is equal, The basal mean, which is 0 in the value line, is the value displayed. The variance is comparable or homogeneous between groups, according to the mean with a p value (sig) of 0.309 where > 0.05.

Table 4 Statistical Tendencies of Family and Friend Support Scores

Group variable	Min Statistics	Max stats	Sum statistics	Means
Mother gave birth normally	25	70	1157	42,851
Mother gave birth to SC	17	65	1056	39,111

The data from table 4 above indicate that women who gave birth often received the lowest score, which was 25 points on one question. Mothers who gave birth generally received a maximum score of 70 on one question. The average score of the 1157 women who gave birth normally on all questions was 42.85. Mothers who delivered their babies via sectio caesarean earned the lowest score, earning just 17 points on one question. Mothers who gave delivery via cesarean had a maximum score of 65 and an average of 39.11.

Table 5 Comparison of Family and Friend Support Values

Variable	Frequency (N=54)	std. Deviation	std. Error	*p-values*
Mother gave birth normally	27	11,16	2,15	0.190
Mother gave birth to SC	27	9,44	1.81	

There were 27 moms who gave delivery normally in table 5 above. There were 27 women who gave delivery via sectio caesarea. According to the aforementioned findings, the value of p = 0.190, which means that at an alpha level of 5%, there was no discernible difference between the average level of family and friend support for moms who gave birth naturally and mothers who delivered by caesarean section.

Discussion

The puerperium, which lasts for 6 to 8 weeks postpartum, is when mothers physically and emotionally acclimatize to becoming moms. Although the puerperium is a time of transition, women's health services tend to ignore it (Rahayuningsih et al., 2021). Because the mother could feel under strain and become quickly irritated by trivial things or mistakes, it is quite simple to lose emotional equilibrium at this time. Between six and twelve weeks after giving birth, this emotional equilibrium will return to normal. Mothers undergo a significant physical and psychological change. (Ikhtiarini & Ambarwati, 2019).

Support from family and friends is defined as being there for others when they need it (Vaezi et al., 2019). In other words, family support is a type of interpersonal interaction that entails family members' attitudes, behaviors, and acceptance to give them the impression that someone is paying attention (Yunita et al. 2019). Giving women free time so they may relax and rejuvenate after giving birth is one common way that family and friends can help them (Qiftiyah, 2018). The assistance offered may take the form of knowledge, education, and emotional support to address issues (Sukma et al., n.d.). Mothers believe that they have emotional support without having to be criticized or cornered because they receive help from those who have also suffered life-or-death situations during the postpartum time from family and friends. (Burns and others, 2020) According to Hajimiri's research, a mother's impression of the level of supportive social interaction she has after giving birth is linked to lower stress levels and improved health (Hajimiri, 2018).

Direct emotional engagement and attention-based support are most welcome (Adeoye et al., 2022). Many academics agree that the male spouse can help lessen the costs associated with pregnancy. It might also be beneficial to receive moral support from friends who have already had children. The fact that the husband does not support the mother at all during labor, that he works outside of the city, that the family is not present when the mother gives birth, and other issues can all contribute to the absence of family and friend support (Qiftiyah, 2018). Support can be given by helping the wife take care of the child; for instance, when the mother is breastfeeding, the husband can accompany the mother and child, lift the child from the bed, change the child's diaper if necessary, give the child to the mother during breastfeeding times, and put the child back to bed when the child has fallen asleep once more (Qiftiyah, 2018). The husband's support can be demonstrated in a number of ways, such as by calming the wife, touching her, or speaking encouragingly to her (Puspitasari, 2020).

There are two ways to give birth: vaginally, sometimes referred to as "normally," and vaginally, also referred to as "sectio caesarean," which is a procedure to remove the baby through an incision in the abdomen and uterine walls if the uterus is intact and the fetus weighs more than 500 grams. The method of normal or abnormal delivery (SC, forceps, vacuum, induction) has a significant impact on the mother's psychological state since a negative experience can lead to psychological trauma, which can make it difficult for the mother to properly care for both herself and her child. The prevalence of cesarean births makes it harder for women to enjoy their postpartum years (Arief et al., 2019).

Of the 54 responders, 27 had postpartum deliveries that were typical, and the remaining 27 had cesarean deliveries. 49 out of 54 respondents—according to the analysis's findings—live with their husbands, while five

other respondents do the same. These qualities define the assistance that husbands and families provide to expectant mothers. A high quality of life for new mothers will be influenced by the level of familial support they receive. The husband's assistance is related to the postpartum mother's well-being (Nisak & Rahayuningsih, 2018).

The findings showed that while the majority of postpartum mothers did not have problems during pregnancy, the majority of respondents did have SC births. One of these factors was the respondents' relatively high level of education, with the majority of them being high school students, or 30, and moms, with the last two levels of education being junior high and university, respectively, at 19 and 5. Higher educated mothers actually prefer SC births (Nisak & Rahayuningsih, 2018).

31 postpartum mothers did not work, whereas 23 did, depending on the type of work. Working mothers will have a higher risk of postpartum depression, according to Ariyanti's findings. Mothers who work or engage in activities outside the home must also fulfill their responsibilities as housewives and parents, which will produce social tension and increase the mother's risk of postpartum depression. Conflict will arise at work for mothers who are of childbearing age, increasing their risk of postpartum depression (Ariyanti, 2020).

Up to 40 infants received all of their daily sustenance from the mother in the form of breast milk. While the other two postpartum women exclusively provided formula milk to their infants, a total of 12 mothers provided both breast milk and it. Apart from the fact that people generally have a practice of giving formula milk or supplemental meals to babies with the justification that the baby is not fussy and the baby's growth will be quick, the people there claim that they do not really comprehend the advantages of exclusive breastfeeding.

Family and friend support did not differ significantly between women who gave birth naturally and those who underwent cesarean sections in our study. The results have a p value of 0.190, which is greater than 0.05. The difference is not statistically significant because > 0.05, or it is not significant with a probability of 0.05. Women who gave birth naturally scored higher overall on each of the questions based on the questions asked than mothers who gave birth through caesarean section.

The average score of the 1157 women who gave birth normally on all questions was 42.85. Mothers who delivered their babies via sectio caesarean earned the lowest score, earning just 17 points on one question. Mothers who gave delivery via cesarean had a maximum score of 65 and an average of 39.11. This demonstrates that mothers who gave birth naturally received more support than those who underwent cesarean sections. In contrast to Akbay's findings, he claimed that caesarean delivery women benefit more from the social environment. She suggested that her findings could be related to the perception that women who give birth through c-section require greater assistance (Akbay et al., 2018).

The information shows that mothers who give birth naturally experience more direct support from family and friends than mothers who give birth via caesarean surgery. This is influenced by the physical health of postpartum cesarean mothers, which has not improved. Mothers who give birth via cesarean section recover more slowly than those who give birth naturally (Ariyanti et al., 2020).

The experience of the mother during childbirth determines the type of delivery's impact on postpartum depression risk; the physical trauma she endures during delivery will have an adverse effect on the mother's psychiatry (Ariyanti, 2020). The support of family and friends is greater for women who give birth naturally than for mothers who give birth by caesarean section because communication with family and friends is simpler for women who give birth vaginally. According to study done by Qiftiyah in 2018, one of the variables that affects this is how family and friends may communicate with mothers who give birth properly and have direct interactions with them (Qiftiyah, 2018).

Unplanned cesarean procedures in women can result in postoperative discomfort. Researchers claim that postpartum women frequently experience stress because there is little to no help with the child's care. Women's postpartum stress is also a result of their ignorance of the new responsibilities that come with being a mother; it is not a result of the labor and delivery process they just went through, which, despite being time-consuming and exhausting, can be forgotten if the mother is successful in having a normal delivery (Amperaningsih & Siwi, 2018).

Compared to moms who give birth naturally, caesarean mothers are physically weaker, have low self-esteem owing to exhaustion, physical discomfort and stress with new duties, and the need to spend more time recuperating causes the relationship with the family to be worse (Ernawati, 2020). Due to postoperative

discomfort, weariness, anesthesia side effects, self-care, difficulties doing everyday tasks, nursing care, breastfeeding issues, and other factors, the comfort of the mother during a cesarean delivery may be significantly reduced compared to a vaginal delivery (Akbay et al., 2018). Therefore, postpartum women want strong family support since they will feel more emotionally strong with the help of family and friends (Yunita et al., 2021).

Conclusion

Based on the results of the research and discussion that have been described, the study showed that there was no significant difference between the support of family and friends for mothers who gave birth normally (vaginally) and mothers who gave birth by cesarean section. Mothers who gave birth vaginally or normally received slightly higher support from family and friends than mothers who gave birth by cesarean section.

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Conflict Of Interest

There are no actual or potential conflicts of interest that the author should disclose.

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The Relation of Knowledge in Restorative Dentistry in Upper-Middle-Class Society with Frequency of Regular Dental Visits

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Abstract

Background: The development of education, socioeconomic conditions, technology, and public awareness of the importance of oral and dental health encourages an improvement of dental and oral health services. This service form is a visit to the dentist. Middle to upper-class societies with better economic conditions and good education have a greater opportunity in gaining knowledge about restorative dentistry care as well as in utilizing dental and oral health services. The purpose of the research is to know the relation of restorative dentistry care knowledge with the frequency of regular visits to dentists in upper-middle-class society. Method: using a cross-sectional study design with the instrument of research in questionnaire form. The number of samples was 100 people using the purposive sampling method in the Surakarta region. The collected data were tested using Kruskal Wallis statistical tests. Result: The results showed that most of the sample (72%) had good knowledge and most of them (54.2%) had regular visits to the dentist. The Kruskal Wallis test shows that there was a correlation between the high knowledge group (p = 0,027) and intermediate knowledge group (p = 0.004) with a regular dental visit frequency. Conclusion: There was a correlation between restorative dentistry treatment knowledge and the frequency of regular visits to dentists in upper-middle-class society. High and Intermediate knowledge about restorative dentistry have a significant correlation with a regular dental visit.
Keywords: Restorative Dentistry Treatment, Dentist Visit, Upper Middle Class.

Introduction Section

Dental pain is the main reason and common for someone to visit a dental office.[1] According to Riskesdas data in 2007 the percentage of Indonesian citizens who had oral health problems was 23,4% but the amount who get proper oral health treatment is 29,6%.[2] Maintaining oral health from infant to adult is imperative for total well-being. Therefore, utilization of preventive dental health services should be applied and one of them is routine dental visits. Changes in lifestyle result in increasing oral health problems based on Riskesdas data in 2013 which is 25,9% and the absorption of oral health treatment is 31,1%.[3] Untreated oral disease can lead to a catastrophic with decreasing the quality of life and create major withdraw in welfare.[4] Most of oral health disease can be prevented by routine dental treatment.[5] At dental clinic, dentist usually treat patient with options base on their case, restorative dentistry is the most frequent treatment perform by a dentist.[6] There are also another restorative treatment such as inlay, only, jacket crown and veneer. The most weakness from restorative dentistry is high treatment cost and it require more than one visit.[7] Oral health attitude , income and knowledge about dentistry contribute to the decision of dental treatment.[8] A person's Oral health attitude and practice can be seen on brushing habit, dental flossing, using mouthwash and dental visit.[9] Several factors are obstacles for dental visit utilization, for example limited knowledge about oral health treatment, high cost and exemption of dental treatment insurance coverage.[10] Another obstacles factors like sociodemografic factors for example age, gender, education, social economic status and living place category whether uptown or rural have impact in the general health facility utilization.[11] At certain social level, these factors influence the availability of oral health treatment facility while at family level mostly influenced by income, parent's education, oral health belief as well as oral health attitude and practice.[12]

Method

This research is a cross sectional study design using questionnaire survey instrument. Research subject is the upper middle class citizens who make a dental visit in Surakarta district. The determination of upper middle class category is based on Kuppuswamy scale. Total sample is 100 respondents. All respondents are obliged to fill the informed consent for filling the questionnaire, but the ethical clearance was obtained before the initial procedures. The questionnaire contains points in which is an adaptation from the previous research with calibration and validation. Data collection is from the questionnaire that had been filled by the respondent in the Dental Office. Data analysis using Non-Parametic statistic with Kruskal-Wallis test with $p<0.05$ and 95% CI. SPSS 20 for windows software is used for the analysis.

Results

Result from Kruskal-Willis test shows that upper middle up group with high knowledge and intermediate category knowledge in Restorative Dentistry treatment have significant association with Dental Visit Frequency with p= 0.027 and p= 0.004, respectively (Tabel 1).

Tabel 1. Kruskal-Willis test Knowledge Category in Restorative Dentistry Treatment and Dental Visit Frequency.

Knowledge	Frequency	N	Mean	P value
Poor	Seldom	1	2,63	0,221
	Never	4	4,50	
	Total		5	
Intermediate	Routine	9	16,78	0,004
	Seldom	13	18,50	
	Never	1	8,19	
	Total		23	
High	Routine	39		0,027
	Seldom	24		
	Never	9		
	Total		72	

Discussion

This research shows that High Knowledge about Restorative Dentistry Treatment have significant association with Dental Visit Frequency (p value = 0.027). On the High Knowledge category mean for a routine dental visit is 41,91 and the highest mean, among two other categories (seldom and never). Highest mean on a routine dental visit is relevant to several previous research which state that the higher economic status the more he can fulfill his livelihood need, including choice in qualified health facility.[13] Intermediate Knowledge about Restorative Dentistry Treatment has a significant association with Dental Visit Frequency (p value= 0.004). Intermediate Knowledge category has the highest mean for seldom frequency (mean = 18.50) this mean higher compare to routine and never frequents. The cause of Intermediate Knowledge possess by Upper Middle Class is because they do not have time to spare, time and gain additional knowledge about dental health. Individual knowledge is one of the factors that determine the agility of a person to seek and make effort in the health service, the higher the knowledge the better their preventive behavior.[14] Overall, the respondents are in the seldom group dental visit or they only came when in dental pain. According to previous research, most people reluctant to spend time visiting a dental office due to inefficient allocation time other factors are the distance and prolonged treatment time.[15] Traumatic feeling also has a major factor to influence Dental Visit behavior.[16] Poor Knowledge about Restorative Dentistry with Dental Visit Frequency have no significant association with Dental Visit Frequency (p=0.221). There are factors that cause Upper Middle Class never visit dental office one of them is most people feel reluctant or they seem does not see the importance of having dental visit. We can conclude that in Upper Middle Class society proper knowledge about restorative dentistry treatment has a significant association with Dental Visit Frequency. This fact shows that particular health knowledge in commoners affects their health seeking behavior. This research proves that in Upper Middle Class society,

knowledge is a proxy to determine dental seeking behavior. Societies with high ability to pay and have extra knowledge about specific health treatment tend to give attention to maintain their health.[16,17,18,19,20]

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Description of Social Support for Postpartum Mothers Comparison of Sectio-Caesarea with Normal Birth in Kartasura Region

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Abstract

The purpose of this study is to understand the social dynamics of a baby using conventional and sectarian sampling techniques.Cross-sectional methodology with purposive sampling as the primary sampling method was used in Kartasura Region. This study was conducted between September 28 and October 15, 2022. For the validated respondent data, there were 54 respondents between the ages of 20 and 41. The type of data collection that is used is descriptive quantitative information analysis. An instrument for doing research employs a self-contained questionnaire. Data analysis using the SPSS 25 program. Nilai is significant (p=0.05). The instrument used in this study is the Postpartum Social Support Questionnaire (PSSQ). The sampling analysis process used an Independent T-test.*Results:* There were 54 responses to the survey. Those who are younger than us, they are 20 and 41 years old, respectively. Out of all the respondents, 27 were adults with normal sexual orientation, and the remaining 27 had a Sectio-Caesarean birth. There were no significant differences in the social link between standard and Caesarea childbirth (2-tailed) > 0,05 (p-value 0,364), which means that there were no significant differences in the social link between postpartum mother and normal childbirth (2-tailed) > 0,05. Friend support received the highest rate of success out of the four social networking systems, which are Husband Support, In-law Support, Parent Support, and Friend Support, with a rate of success of 40,83.*Applications/Originality/Value:* There is no difference between an infant's social network when they give birth normally and when they give birth via cesarean section. The differences between this study and other studies may be seen in the study respondent, study time, study instrument, study literature, study method, and study result. In regards to childbirth, it can be said that the ratio of childbirth to normal childbirth is noticeably higher, and the ratio of childbirth to the fourth subset of social networks is particularly high, with a ratio of 40.83.

Introduction

Although pregnancy and childbirth are biological processes, women are aware of the risk to their physical and mental health during giving birth. childbirth also requires postpartum period lifestyle adjustments. There are several factors that affect sailing, including Energy (power), Fetus and Placenta (passengers), birth canal (passage), Maternity Psychic, and Oblong (Yeyeh, 2013). Power is the single most important factor affecting the persaline process. Power is a collection of traits that exist in adults, including traits like his and straining that can cause services to malfunction and cause a person to go asleep (Sayekti et al., 2016). When the production process is fast or slow, the use of strong and weak is very detrimental. If the persuasion process is in progress when he is leaning, it may be possible to slow it down (Ardhiyanti & Susanti, 2016). If a woman is unable to conceive normally, medical personnel will use alternative methods of procreation to aid in fetus implantation. The only procedure that can be performed is Sectio Caesarea childbirth (Machmudah, 2010).

When birth wasn't safe due to pervaginal childbirth, the Operation Caesar was a surgery that involved killing the fetus with a warning to avoid stomach and uterus. Worldwide, this level of intervention is increasing. Since 2003, the C-section rate in Prancis has been around 21%. (INSERM, 2010). In order to reduce persentase, World Health Organization recommends operating at a level between 10% and 15% in each nation. Uncompleted Caesar operations can alert women to a greater risk of mentally health problems such as post-traumatic stress disorder (PTSD) and post-traumatic depression.

According to AKI, the global average for 2013 was 210 deaths every 100,000 live births. In contrast, AKI in developing countries has increased 14 times more than in developed countries, reaching 230 per 100,000 live births (WHO, 2014).

Postpartum is a type of birth that develops after the mother gives birth and ends with the return of her organs to their pre-pregnancy state (Bobak & Jensen, 2000). Postpartum is a category eight pregnancy complication that continues after delivery and can last up to six months. This period consists of three stages,

namely the acute and early phase (6–12 hours after childbirth), the subacute phase (2–6 weeks after childbirth), and the delayed phase can last up to the first 6 months.

Post-partum is a challenging stage in an expectant mother and child's daily life. 50% of infant deaths during the acute phase are caused by preterm birth, sepsis, eclampsia, and abortions. In contrast, 50% of such death in the mother after childbirth occurred during the first 24 hours after give birth to, with the majority of it occurring over the first eight days of the childbirth.

The three main causes of an infant's long-term deaths are bleeding (28%), eklamsia (24%), and infection (11%). Important indirect causes are anemia (51%), too young to get pregnant or (20 years) 10.3%, too old to get pregnant or (35 years) 11.0%, too many children or (> 3 people) 19 .3% (Ministry of Health, 2009).

According to reports from the BKKBN, as of the year 2019 up to 4,8 million children were born every year in Indonesian, making every step a risk whether the child is the first or the subsequent one. But not everyone believes this since if something is done without thinking, it will inevitably lead to further problems in the lives of the mother and the daughter (Manafe, 2019).

KF1 has an postpartum visit rate specifically for Semarang that is 95% higher than the aim of 90%, while KF3 has an postpartum visit rate that is 87% higher than the target of 90%. (Semarang City Health Office, 2014). However, this is not related to the development of AKI. In contrast to Semarang's higher than average population, 61% of infant deaths occurred during childbed. The frequency of those aged 20 to 34 who have severe deaths is approximately 69% of the overall AKI (Central Java Health Office, 2015).The highest maternal mortality rate during the postpartum period was 60%, said by bleeding 30.37%, hypertension 32.97%, circulatory system disorders 12.36%, infection 4.34%, metabolic disorders 0.87%, and other causes 19.09%. (Central Java Health Office. 2017. page 82).

The single most important factor at the time when my mother was preparing to launch her new career as an adult was her social network. According to Zimet (1988), a social network is a network that is subject-focused and can originate from three different groups: friends, colleagues, and meaningful others. Zimet (1988) explained that social networks are composed of three dimensions, namely: 1) Family, in which a particular family contains a saliently. 2) Friend, where there are connections that are constantly being made, maintained, and given as gifts or consideration. 3) Meaningful others, where someone who is incredibly important to someone in the socialization process and significantly affects an individual.

According to Cutrona and Russell, additional dimensions include attachment (parallel with emotional), social integration (paralel with interpersonal relationships), value certainty (paralel with positive reinforcement), reliable alliance (parallel with instrumental framework), guidance (parallel with organizational framework), and the capacity for growth. The addition on the Cutrona scale, namely opportunity to care, appears to be highly related to the mother-infant relationship. This dimension refers to responsibility for the well-being of another individual.

Other social factors may also contribute to depression as well as to children who have had successful pregnancies. The primary outcome of prenatal depression is a child who has unfavorable results. While social support may be a moderating factor, several studies have explored the role that social support plays in the relation between depression, fear, and infant mortality.

The following section will outline the social network of the adult child after separation, whether through spontaneous or caesarean pervagination. This study will assist in identifying postpartum discrepancy and will identify the factors that affect an expectant mother's social support network, including relationships with family members, friends, coworkers, and neighbors, in order to improve the health of the expectant mother and the baby.

Method

Respondent
This study was conducted in the Puskesmas Kartasura neighborhood of Sukoharjo. Ibu nifas is the subject of the study, which takes place from August 28, 2022, to October 15, 2022, in the area of Kartasura Health Center Work. The study's respondents must meet certain criteria, including not having any physical or mental health issues, being a respondent, having any close family members, and not having any visual and hearing impairment. The available respondents for conducting this study are around 54 respondents. Purposive sampling is used to

take samples. Husband, support for people, support for in-laws, and support for friends from a tertiary care hospital, So that we can improve the health of our parents and our children.

Design

The sampling method used in Kartasura Region combined a cross-sectional design with a purposive sampling technique. For the validated method known, there were 54 respondents between the ages of 20 and 41. The type of data analysis that is used is descriptive quantitative data analysis. The social environment is the primary variation in this essay.

Instrument

By converting the Postpartum Social Support Questionnaire (PSSQ) from Hopkins & Campbell and Miller into Indonesian, the research instrument is a questionnaire about the social support networks of new mothers.

There are 51 questions about social security in all. As a result of the questionnaire's validity and dependability checks, approximately 44 valid questions and 7 invalid questions were discovered.

Static Analysis

Information was first entered into an Excel spreadsheet and then transferred to an SPSS.25 spreadsheet. Random check for to detect errors during data entry is described. Utilizing statistics for descriptive and inferential purposes (IBM SPSS Statistics 25). Next, perform a normality test to determine whether data distribution is normal or not. The normality test is carried out as a prerequisite for carrying out regression, correlation, and other related tests .

After doing normality test, the result showed that the data were distributed normally. The next step is for the author to conduct an correlation test of the Pearson Social Network Data in order to understand the social connection between the social networks of the subject, an observer, a manager, and a friend.

Ethical Consideration

Research was carried out under the direction of Regional public hospital (RSUD) Dr. Moewardi. This article mentions anonymity and inclusiveness. There is no name or private identity information that is included on the questionnaire or demographic form. Participation in this study is quite successful, and it serves its intended purpose.

Every participant has a responsibility to participate in the study without fear of negative consequences and to get a thorough summary of the study's findings. People admitted that they had a responsibility to protect themselves from whatever conclusions they reached without being questioned.

List of Questions

This lecturer was given to a group of breastfeeding mothers to ensure that any questions were understood and the level of the point was explained. Name, age, last education, marital status, ethnicity, living together, type of work, work, profession, babies born in the 7th week, 1st pregnancy, 2nd birth, number of living children, intention to get pregnant, and desire to become pregnant are some of the specific characteristics of This question urges the respondent to disclose their social tightrope.

Overall at a level of five points (ranging from 1 to 5). Respondent was asked to rate their social environment at home on a scale of 1 to 5 (where 1 denoted never, 2 rarely, 3 sometimes, 4 often, and 5 always).

Result

Table 1. Distribution of the frequency of postpartum mothers according to the characteristics of the respondents

Characteristics	Frequency (N=54)	Percentage (%)
Age		
a. 21-30 years	34	64,8
b. 31-40 years	18	33,3

c. > 40 years	1	1,9	
Mother's education			
a. Junior High School	5	9,3	
b. Senior High School	30	55,6	
c. College	19	35,2	
Living together			
a. Lives with husband	49	90,7	
b. Lives with husband and family	5	9,3	
Type of work			
a. Doesn't work	31	57,4	
b. Work	23	42,6	
Pregnancy complications			
a. There is	6	11,1	
b. There isn't any	48	88,9	
Newborn Weight			
a. < 2500 grams	3	5,6	
b. 2500 – 3500 grams	43	79,6	
c. > 3500 grams	8	14,8	
Providing baby nutrition			
a. ASI	40	74,1	
b. Breast milk and formula	12	22,2	
c. Formula milk	2	3,7	

Table 1 shows the distribution of respondent characteristics, with 64% of the majority being female respondents aged 21 to 30; the highest pendidikan intensity was SMA at 55,6%; and the highest level of social interaction was 90,7% with their immediate family. Ratio of respondents who did not report working with a participation of 57,4% divided by 42,6% for those who did. With 88,9% of the persentase being absorbed, the majority of infants do not experience complicated breastfeeding. Next, birth weight 79.6% with body weight around 2500-3500 gram. 74.1% of nutritional products during exclusive breastfeeding.

Tabel 2. Distribution of the frequency of postpartum mothers according to the type of delivery

Type of delivery	Frequency (N=54)	Percentage (%)
Normal Childbirth	27	50
Sectio-Caesarea Childbirth	27	50

Tabel 2 details the type of respondent selection that was made, with 50% (27 respondents) selecting "normal" and 50% (27 respondents) selecting "Sectio-Caesarea."

Normality test
The results of the Normality test study are those of Shapiro Wilk test and Lilliefors. According to Liliefors test, all data for each kelompok category have a normal distribution when p value (Sig) lilliefors 0,200 is applied to 2 category with > 0,05. P value Shapiro Wilk test for category 1 and 2 was respectively 0,966 and 0,570. Given that everything is greater than 0,05, the two category are distributed normally as according Shapiro Wilk test.

Homogenitas test
Homogenitas test is intended to present the results of Homogenitas test using the Levene Test method. Score Levene is analyzed using the score based on Mean optimal value of 0,001 with a p value (sig) greater than 0,309 when > 0,05 denotes the presence of shared or homogeneous variation among groups.

Table 3 Tendency of social support scores

Variable Group	N	Mean	Std. Deviation	Std. Error Mean
Normal birth score	27	149,3333	25,25105	4,85957
Score of cesarean delivery	27	143,3333	23,13339	4,45202

According to analysis in Table 3, the results of the 27 responses from women who answered the questions normally resulted in a total score for women who answered the questions normally of 149,33. in contrast, the 27 responses from women who answered the questions in a sectio caesarea yielded a score for women who answered the questions in a sectio caesarea of 143,33.

Table 4 Independent T Test

Variabel	Frequency (N=54)	Std. Deviasi	Std. Error	p-value
Mother gave birth normally	27	25,25	4,85	0,367
Mother gave birth to SC	27	23,13	4,45	

In table 4 above, there were 27 mothers who gave birth normally. Caesarean section combined total 27. From the results above, it can be inferred that at 5% alpha, there wasn't statistically significant difference of both the value of either the family and friends who had normal and caesar births
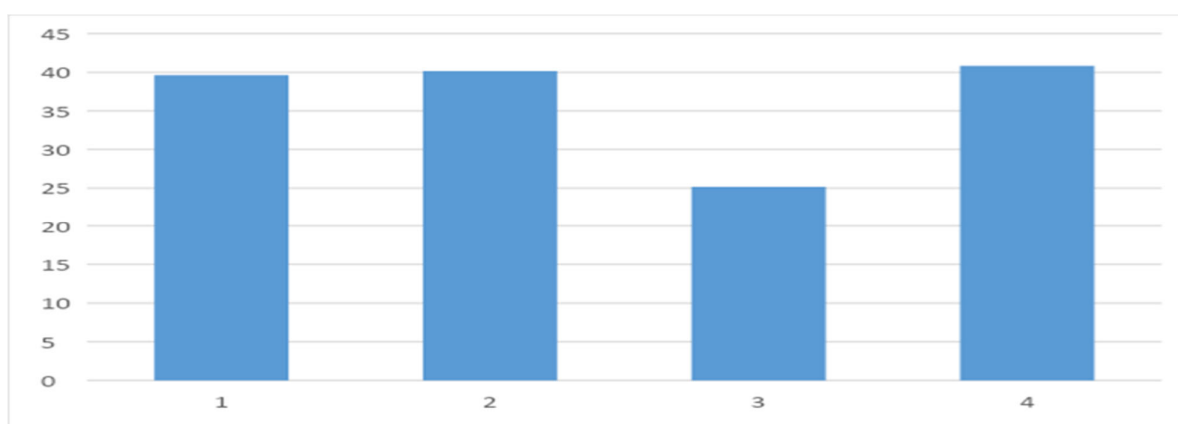
Table 5. Rationalization of the Social System of the Kartasura Area

1. Husband Support (39.63), 2. Parent Support (40.16), 3. In-law Support (25.16) and 4. Friend Support (40.83)

According to table 5, the results for the overall rate-ratio of four systems with high rate-ratio gains are from the Friend Support. After that, Husband's Support and Lasting Mother-in-law's Support were disseminated through Parental Support. As a result of the social networking data above, it can be inferred that compared to Parental Support, Husband Support, and Mother-in-law Support. Postpartum mothers gave birth normally and earnestly received more support from his or her friends.

Discussion

Postpartum is defined as an uncommon upgrades period, which may also produce as a defence for their first child behind. Childbirth and postpartum are also a persistent event reproduction that can impair a person's emotional and physical health. In similar to other anxiety disorder, women experiences symptoms twice as frequently as men. Consider a certain symptoms or anxiety disorder recurrence that has already been the topic of some research may have an impact on the prevalence of reproduction life in women.

Parental or family support that provides support for the success of Social Support with an average of 40,16 as a result of this study there is a bond between the success of the social network and the support of the person or group of people. Statistic test results from T test produced amounts with p-value = 0.553, where 0,553> 0,05 means that there is no variation between the two results.

There is a connection, albeit slight, between success of social support and in-law support, according to in-law support that provides advice regarding social support status on a ratio of about 25,16. The statistics test

result obtained using the T method has a p-value of 0.514, meaning there was no difference between the two of them because 0,514 > 0,05.

The statistics test result obtained using the T method has a p-value of 0.514, meaning there was no difference between the two of them because 0,514 > 0,05.

In Table 5, it is stated that, relative to other dungeons, Friends Support has more inhabitants than they do. This can be verified, according to what is written there (Burns et al., 2020; McLardie-Hore et al., 2020) By having emotional support from others, it may be said that an individual has emotional support without having to ask for it or beg for it since they have support from others who have also experienced negative emotional conditions. T test received a p-value result of 0.949, where 0.949 > 0,05 indicates that there is no difference between both of them.

There is a connection between the husband support and the success of postpartum mother in this study so the husband support that provides the support with research refers to postpartum mother is average 39,63. Statistics test results from the T test were obtained with a significant p-value of 0.884 and showed that 0,884 > 0,05 meant there was no variation between the two of them. The social environment described here, which consists of reflection, direct communication, and emotional closeness, is the most significant factor that contributes to the occurrence of postpartum depression and the postpartum blues. Support for women become more high than for men. Increased support from friends, family, and healthcare professionals should be given to women in order for them to recognize their own goals and aims.

Based on the results of the study, it can be concluded that, in contrast to Sectio Caesarea, the majority of the women in the 12 Villagers in Kartasura Regency have normal childbirth activity. The results support the findings of Saifuddin (2010), who stated that the majority of childbirth activity is considered to be normal, with only a small minority (12–15%) considered to be pathological. This result also aligns with the findings of Lucky Wijaya Sari (2015), which indicate a significant amount of normal childbirth events. The results of Litti (2014) show that 22 respondents, or 55 percent, use the Sectio Caesarea childbirth method. In the 44 legitimate questions that were answered, there were four social support networks, including those in In-laws, Parents, Friends, and Husbands. the highest score was achieved by mothers who gave birth normally; these scores are in line with. According to Indiarti (2015), the process of joining the Sectio Caesarea has become a key area for breast-feed, particularly the first few days after joining.

Mothers who give birth to by caesarean section suffer from physical weakness, low self-esteem due to fatigue, physical discomfort and tension with the new role, and the need to spend more time resting. Pursuant to postoperative pain, fatigue, side effects of anesthesia, self-care, difficulty in fulfilling activities of daily living, nursing care, breastfeeding problems, and other factors, there may be decline that differs from vaginal childbirth in terms According to (Ningrum et al., 2011), young adults under the age of 20 or older than 35 are more at risk for developing caesarean delivery. This is because teenagers under the age of 20 are more likely to just be uterus and have pelvis that has not yet begun to improve.

Conclusion

Based on the results of the study, it can be concluded that the majority of postpartum women in the country are between the ages of 20 and 35 (94,6%); the majority of respondents who go out with their friends are 4,9%; and respondents who work are 3,1% more numerous than those who do not.

Housewife, with a response rate of 3.2%, and health professional, with a response rate of 0.2%, are the two professions with the highest response rates. Out of all the respondents, 27 are babies with normal growth and development and 27 others gave birth by caesarean section. In the table it is also stated that there are 6 infants who experience complications during labor and 48 infants who do not. Almost 40 children were given Breast milk by the mother as daily food. Around 12 women provided breast milk and formula as food for the baby, while the other two women there in postpartum mother group also provided formula milk.

As shown in this study's findings about the functioning of babies with postpartum, there are several sociodemographic and clinical characteristics of these infants that may help explain how their social functioning is improved.

There is no significant difference between how childbirth is carried out by an postpartum mother and how it is carried out normally or by sectio-caesarea among the four social support systems, namely parental support, in-law support, husband support, and friend support. However, there is a significant difference with how childbirth is carried through an postpartum mother.

friends support with a ratio of 40,83 is the most common social networking tool for the top four social networking sites.

Acknowledgement

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The Relationship between APGAR Family Score and Sleep Quality with Hypertension Observasional Study : A Cross-Sectional Study

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Abstract

Purpose: Indonesia is the 5th country with the highest prevalence 34,11% from the population. Based on the health center report in 2020 cases of hypertension at sukoharjo, there were 110,116 cases (69.18%) consisting of 49,510 men, 60,606 women. Meanwhile, at the Gatak Health Center there were 8,041 people who experienced hypertension which were divided into two, namely, 2,932 men and 5,109 women.
Methodology: To analyze the relationship APGAR Family Score and Sleep Quality with Hypertension. Observational analytic research with cross-sectional research design on primary data. The research sample is elderly 40 - >60 years. The sampling technique used cluster random sampling with a total sample of 86 elderly.
Results: showed of the sample with elderly aged 40 - > 60 years old, male sex as many as 13 (18.6%), female sex as many as 57 (81.4%), dysfunctional family as much as 14 (20.0%), poor sleep quality as much as 66 (94.3 %). The results of the fisher test showed that there was a relationship between poor sleep quality and the incidence of hypertension with p 0.023 <0.05, but there is no relationship between APGAR family score and the incidence of hypertension with p 0.720 > 0.05.
Applications/Originality/Value: Conclusion there is a relationship between poor sleep quality with hypertension, but there is no significant relationship between APGAR family score with hypertension.

Introduction Section

When a individual's systolic blood pressure (SBP) exceeds 140 mm Hg and/or their diastolic blood pressure (DBP) exceeds 90 mm Hg, this conditions is a dissease called hypertension. (Gafane-Matemane *et al.,* 2021). Each 20 mmHg elevation in systolic pressure as well as 10 mmHg elevation in diastolic pressure elevated the probability of mortality from causes including ischemic stroke and cardiovascular disease (Herdiana & Kurniawan, 2017).

Data from WHO in 2015 found that hypertension can affects 1.13 billion people globally, which indicates that one out of every three people is affected. The number of individuals suffering from hypertension is expected to rise year after year, reaching 1.5 billion by 2025, with 9.4 million people dying as a result of hypertension and its consequences. (Kemenkes RI, 2019). The prevalence of hypertension in Indonesia itself reaches 34.11% of the population. This percentage makes Indonesia ranked 5th with the most cases of hypertension in the world. According to Basic Health Research (Riskesdas 2018), hypertension is present in 34.1% of Indonesians. This is higher than the prevalence of hypertension in the 2013 Riskesdas, which was 25.8 percent (Widyawati, 2021). Based on sukoharjo health center report in 2020 cases of hypertension, there were 110,116 cases (69.18%) consisting of 49,510 men, 60,606 women. Meanwhile, at the Gatak Health Center there were 8,041 people who experienced hypertension which were divided into two, namely, 2,932 men and 5,109 women (Dinkes sukoharjo, 2021).

Family function refers to the process of providing resources for the family and its members and helping them to complete their tasks (Zhang, 2018). family function is assessed through the communication between family members, roles between family members and the relationship between all family will result in life satisfaction and psychological health (Yeom & Lee, 2020). Excessive emotional states can trigger stress and release adrenaline into the bloodstream, increasing sympathetic nerve activity and causing an increase in blood

pressure. If this increase in blood pressure occurs continuously it will result in hypertension (Batlajery & Soegijono, 2019).

Unhealthy sleep status can change blood pressure and increase the risk of hypertension. Sleeping habits with shorter sleep duration than an average of 7-8 hours are associated with the incidence of hypertension, and usually found in people who sleep less than 6 hours per night. Aggarwal (2018) investigated that poor or insufficient sleep quality ≥ 7 hours/night in a person is associated with an increase in blood pressure (Aggarwal *et al.,* 2018).

The purpose of this study is to investigate the association among APGAR family score and sleep quality with hypertension. The goal of this research is to raise hypertension awareness in our community and avoid the disease.

Method

Materials

This study is using observational analytic study. The method of this research is a cross-sectional research design on primary data. The research subjects were elderly who is willing to participate in this research. Based on WHO, the middle age age ranges from 40-59 years and the elderly ranges from 60-74 years (Purba *et al.,* 2017). The inclusion criteria is elderly who live in Gatak, and elderly who is willingly to participate in this research. The exclusion criteria is night shift worker, and subject who undergoing intensive medical for the last 3 months. The 86 elderlies who live at Gatak, were selected as participant using cluster random sampling technique. This research using openepi to determine the number of required sample, and the result is 70 subject.

Ethical clearance

This research procedure was accepted by Health Research Ethics Committee Faculty of medicine of University Muhammadiyah Surakarta in Gonilan, Kartasura, Sukoharja, Central java (File no. 4575/B.1/KEPK-FKUMS/XI/2022).

Data Collection

Elderly who came to Puskesmas Gatak is under supervision by Gatak midwife and our superviser. The procedure and informed consent was being explained and accepted before the data was collected. The blood pressure was observed using sphygmamometer for 3 times with duration for 2 minutes. The APGAR and sleep quality was used to collect data. Age, occupation, and medical history also being collected in this stage.

The purpose of APGAR questionnaire are to measure the function of a family where there will be 5 questions, which include Adaptation, Partnership, Growth, Affection and Resolve. The answers to this test are divided into 3 parts, 'often or always happens' gain 2 points, 'sometimes' gain 1 point, and 'never happens' gain 0 points. Meanwhile, the final score for each answer will be accumulated into 3 categories, 'great family function with 7 - 10 points, 'moderate family dysfunction' with 4 - 6 points, and 'poor family dysfunction' with 0 - 3 (Wang *et al.,* 2020). In this research, the final score will only be divided into 2 category which functional family for 6-10 points and poor dysfunctional family for 0 – 3 points.

The purpose of PSQI questionnaire are to measure the quality and disturbance of sleep. The questionnaire itself has 19 question, that will be divided into 7 category. The accumulation final score for the 7 category is between 0 – 7. If the sleep quality final score < 5 is considered good quality of sleep, while the final score > 5 is considered as bad quality of sleep (Liu *et al.,* 2016). The data was being collected 2 times at different location around the Gatak Health Center. The first location is located at Ngudi Waras VII, and the elderly who came is 40. While, the second location is located at Ngudi Waras VIII, and the elderly who came is 35. The collected data will be processed using univariat to discover the distribute of the sample, bivariat using fisher test since in this research it doesnt meet the qualification of using chi square methods.

Result

Descriptive Analysis

Result
In this research, there is 86 elderly who participate, while the sample is 70. The majority is 57 female (81.4%) and 13 male (18.6%). In gender distribution of elderly, there is 2 category, the first one is middle age which contain 27 subject (38.6%) and the second is elderly which contain 43 subject (43%). The majority for APGAR category is functional family 56 subject (80%) and dysfunctional family 18 subject (20%). Sleep quality is the second variable and divided into 2 category, there is good sleep quality 4 subject (5.7%) and poor sleep quality 66 subject (94.3%). In conclusion, there is more hypertension for 56 subjects (80%) than normal tension for 14 subject (20%). You can see an example of Table 1.

Table 1. Frequency Distribution

Characteristic	Frequency (F)	Percentage(%)
Age		
Middle age	27	38.6
Elderly	43	61.4
Total	70	100.0
Gender		
Male	13	18.6
Female	57	81.4
Total	70	100.0
APGAR Family Score		
Functional	56	80
Dysfunctional	18	20
Total	70	100
Sleep Quality		
Good	4	5.7
Poor	66	94.3
Total	70	100
Blood Pressure		
Normal tension	14	20.0
Hypertension	56	80.0
Total	70	100

Discussion
The majority in age and gender is 7 female (81.4%) and middle age 27 subject (38.6%). Around that age there will be a vulnerability to undergoing the aging process, physical limitations, decreasing psychological and social conditions, and degression in various organ functions, one of which is a decrease in heart function (Sanusi, 2020). Sartik, *et al* (2017) peformed study in Palembang, result of the study showed that increasing age will increase the risk of developing hypertension (pValue = 0.00, OR = 6.55) (Sartik *et al.,* 2017). Females are more likely to suffer from hypertension, specifically as they approach menopause. They are not protected at this time by the hormone estrogen, which elevates the amounts of High Density Lipoprotein (HDL). Elevated levels of HDL cholesterol are a preventive agent against the development of atherosclerosis diseases (Nainar *et al.,* 2020). According to Bantas & Gayatri (2019), female aged 60 and over had a risk of developing hypertension 1.25 times compared to men (OR = 1.25, pValue = 0.00653) (Bantas, 2019).

The table also shows functional family 56 subject (80%) has the highest percentage compared to dysfunctional family. Family has an important role in developing, preventing, adapting and helping solve problems suffered by family members. Health problems that occur in the family will affect the relationship between family members which can have an impact on the community around the family. The APGAR family

functions to explain the internal relationships of each family member, and it used to access how the quality of life of each family member is. Patients who have functional families can improve their adherence to their illness (Kohir & Sulastri, 2021).

Furthermore, poor sleep quality has the highest percentage 66 subject (94.3%). Poor sleep quality will escalate the systolic blood pressure. Sleep quality itself related to elevation of cortisol and causing the increase in catecholamine levels, so the person's blood vessels will experience vasoconstriction. Vasoconstriction of blood vessels will developed into peripheral vascular resistance, which results in hypertension (Setiawan *et al.,* 2022).

For the blood pressure itself, there is more hypertension elderly for 56 subject (80%) than the normal tension. Our result was in line with the result of Nainar *et al.,*(2020), which found 57 elderly respondents with stage 1 hypertension (63.5%) and 31 elderly respondents with stage 2 hypertension (34.7%). Older age will cause changes in organ function such as an intense and continuous increase in systolic blood pressure until the age of 70-80 years (Nainar *et al.,* 2020). The elevation of blood pressure due to insulin resistance which can be divided into several causes, including an increase in: a) production of angiotensinogen by adipose visceral tissue which is resistant to insulin; b) decreased NO levels due to insulin resistance which can lead to endothelial dysfunction; c) increased AT1 receptors and endothelin-1 expression; d) increased sodium reabsorption in the proximal tubule and, e) increased sympathetic activity (Tedjasukmana, 2012). When blood pressure in renin rises, the liver produces angiotensinogen (Ang), which is hydrolyzed to angiotensin I (Ang I) and increases epinephrine and norepinephrine production. Ang I is converted to angiotensin II by the activity of angiotensin converting enzymes (ACEs) generated by the lungs (Ang II). Aminopeptidases convert angiotensin II (Ang II) to angiotensin III (Ang III). Ang II is thought to be the most significant RAAS effector. AT1R that is activated by Ang II and regulates a variety of physiological processes such as vasoconstriction, ventricular hypertrophy, myocardial infarction, atherosclerosis, reactive oxygen species (ROS) formation, tissue inflammation, and aldosterone synthesis. Aldosterone can enhance the formation of ROS, which causes organelle dysregulation and increases the production of ROS. In mitochondria, high energy phosphates are produced. Adrenergic receptor malfunction and coronary vasoconstriction will result from this impact, these disorders can result in hypertension (Ma *et al.,* 2022).

Bivariate Analysis

Result

Based on Table 2, the result of bivariat analysis test can be seen. From its calculations, P = 0.720 which the result is not significant (P > 0.55). The OR is 1.636

Table 2. Bivariate analysis of APGAR family score with hypertension

APGAR Family Score							
	Normal tension		Hipertension		P value	OR value	95% CI
APGAR Family Score	N	%	N	%			
Fungsional	12	17.1	44	62.9			
Non-Fungsional	2	2.9	12	17.1	0.720	1.636	0.321 – 8.330
Total	14	20	56	80			

Based on Table 3, the result of bivariat analysis test can be seen. From its calculations, P = 0.023 which the result is significant (P < 0.55). The OR is 15.00

Table 3. Bivariate analysis of sleep quality with hypertension

Sleep Quality			
Normal tension	Hipertension	OR value	95% CI

Sleep Quality	N	%	N	%	P value		
Good	3	4.3	1	1.4			1.425 – 157.904
Poor	11	15.7	55	78.6	0.023	15.000	
Total	14	20	56	80			

Discussion

In this study, we receive P = 0.720 This suggests that there is no association among APGAR family score and hypertension incidence because the finding is indeed not relevant. (P > 0.05). in our own findings were consistent with earlier research Affusim *et al.,* (2018) where pValue = 0.873 was found, so there is no relationship between the APGAR Family Score and the incidence of hypertension. This conditions can be happen because in functional families they had a good relationship between family members which can reduce the risk of cardiovascular responses during stressful situations and reduce the risk of hypertension. Meanwhile, non-functional families occur due to lack of family support and causing a subject to become more susceptible in experiencing stressful conditions which can increase the risk of developing hypertension (Affusime *et al.,* 2018).

Unfortunately, this statement is inversely proportional to Wang *et al.,* (2020) where a pValue result of 0.008 was obtained and it was stated that there was a significant relationship. This can be happen when a family has a higher APGAR score, the health status will increase. Hypertensive patients will depend on other family members for information regarding their illness and emotional family support. Thus, family functions needs to achieve special attention for low-income patients with hypertension (Wang *et al.,* 2020).

As we can see in table 3, we receive P = 0.023, It leads to the conclusion that there is a link between quality of sleep and the prevalence of hypertension. In other words, the result is significant between 2 variabel (P < 0.05). Yang *et al.,* (2021) and Makarem *et al.,* (2022) revealed that P <0.001 so this poor sleep quality is related to the incidence of hypertension itself. Thus, it is necessary to optimize the quality of one's sleep to reduce the risk of hypertension (Leman *et al.,* 2021). one of the causes is short sleep duration. As a result, it has the potential to increase the prevalence of obesity, diabetes, and hypertension. Short sleep duration can result in decreased sleep efficiency, increased sleep variability, excessive daytime drowsiness, circadian rhythm disruptions, and metabolic dysfunction. Poor sleep quality can also be caused by a variety of sleep disorders that increase the activity of the sympathetic nerves while decreasing the work of the parasympathetic nerves, hence speeding inflammation and oxidative stress and worsening vascular endothelial function. (Makarem *et al.,* 2022). sleep duration < 6 hours can increase the risk of developing hypertension 1.2 times. Insufficient sleep duration will result in changes in biological rhythms where it will increase sympathetic nerves, oxidative stress and the hypothalamus-pituitary axis (He & He, 2022). According Maryam *et al.,* (2022) Insomnia and hypersomnia patients had a 1.22 increased chance of acquiring hypertension. There is a 10-20% reduction in blood pressure throughout the usual sleeping period. This condition is known as nocturnal dipping. The duration of sleep time that is less or more than the hours that should be can cause this condition to experience disturbance (Rezapour *et al.,* 2022). Alex *et al.,* (2022) observed that poor sleep efficiency will result in an increase in systolic and diastolic blood pressure (pValue = 0.01 (systolic), pValue = 0.12 (diastolic)) Poor sleep quality as measured by the PSQI questionnaire (insufficient sleep, poor performance of sleep, and midday disturbance) has a significant impact on elderly health statuses such as hypertension. To maintain a normal range of systolic and diastolic blood pressure in the elderly or adults with elevated blood pressure, the guidance of promoting sleep hygiene and lifestyle modifications is required (Alex *et al.,* 2022). The other factors are weather. In surakarta, the temperature is higher in some other places in indonesia. It can affect the quality of sleep, especially in sleep fragmentasion. It causes by the hot temperature at night, can affect the subject to wake up and disturb their cycle of sleep which can affect their sleep quality (Ahmad Fakihan, 2016).

Conclusion

This study found a link between sleep quality and the occurrence of hypertension. However, there isn't any link between the APGAR family score and the occurrence of hypertension. The outcomes of this study can be used

by the community and the state to increase hypertension awareness and education about the importance of sleep quality.

Acknowledgement

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The Relation between Lifestyle and Nutritional Status of Adolescents in Central Jakarta

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Abstract

Purpose: The purpose of this study was to determine the relation between lifestyle with nutritional status of adolescent in Central Jakarta.*Methodology:* This research is quantitative with a cross sectional design. The research population was 268 adolescents with a sample of 135 adolescents. Samples were taken using probability sampling technique with proportionate random sampling. The dependent variable in this study was nutritional status and the independent variable in this study was lifestyle including physical activity, smoking behavior, and sleep duration.*Results:* The results of univariate analysis in this study showed that 54.8% of adolescents had poor nutritional status, 61.5% of adolescents had mild physical activity, 78.5% of adolescents had no smoking behavior, and 63.0% of adolescents had a good sleep duration. The results of the chi square statistical test showed that there was a relation between physical activity (pvalue = 0.004) and sleep duration (pvalue = <0.0001) while there was no relation between smoking behavior (pvalue = 0.799) and nutritional status.*Applications/Originality/Value*: This manuscript is an original work that has never been published or published in other media.

Introduction

The adolescence stage is the transition from childhood to adulthood, where this stage experiences many hormonal changes that affect physical development. Adolescent need more nutrition than children for their physical growth (Diananda, 2019). Adolescent often experience problems with themselves because they are in the process of finding their identity, influenced by the environment and changes in lifestyle. Lifestyle irregularities can cause nutritional problems in adolescents (Kemenkes RI, 2020).

In public health, nutritional problems are among the most important and require special attention. The adolescent stage of malnutrition and excess nutrition can make a person more susceptible to disease. Especially for young women, if it continues into adulthood and marriage, it can affect the fetus in the womb (Kemenkes RI, 2020) .

Nutritional status is an individual's physical health condition which is determined by nutritional measurements. The amount and types of food consumed can affect an individual's nutritional status, income and eating habits personally. The categories of nutritional status are undernutrition status, good nutritional status, overweight status and obesity (Nugraheni., et al 2018). Good nutrition is achieved when sufficient nutritional intake is met. Malnutrition is experienced when the body lacks essential nutrients. Nutrition is experienced more when the body gets nutrients that exceed the adequacy rate, so that it will have a negative impact on the body.

Lifestyle includes indirect factors that can affect individual nutritional status. Lifestyle refers to how a person lives; a negative lifestyle, including a lack of exercise, smoking and drinking alcohol, triggers the development of various diseases (Nugraheni et al., 2018). According to the WHO, Physical activity is defined as any movement of the body caused by skeletal muscles and generates useful energy for maintaining mental and physical health and keeping the body fit and healthy every day.

Adolescents with less physical activity automatically spend less energy and their nutritional intake is also lacking, so they easily experience nutritional problems. Physical activity is one way to avoid gaining too much weight. Nutritional status is also affected by sleep duration; a lack of sleep duration leads to hormonal and metabolic changes that can lead to weight gain and even obesity. The cause of sleep deprivation is due to changes in sleep patterns.

Based results of the 2018 Basic Health Research (Riskesdas), the nutritional status of adolescents aged 13-15 years in Indonesia was found to be 1.9% very thin, 6.8% thin, 11.2% overweight, and 4.8% obese based on Body Mass Index/Age. Data obtained from the prevalence of nutritional status of adolescents aged 16-18 years based on BMI/Age revealed that 1.4% were very thin, 6.7% were thin, 9.5% were overweight, and 4.0% were obese.

Based results of the 2018 Basic Health Research (Riskesdas), the nutritional status of adolescents aged 13-15 years in the DKI Jakarta area was found to be 1.9% very thin, 6.2% thin, and 15.1% overweight based on Body Mass Index/Age. and 10% are overweight. According to the prevalence of nutritional status in adolescents aged 16-18 years based on BMI/Age, 1.9% were very thin, 7.0% were thin, 12.8% were overweight, and 8.3% were obese. Where the prevalence of underweight nutritional status is higher at the age of 16-18 years than at the age of 13-15 years.

A healthy lifestyle is an effort to achieve a healthy life and avoid bad habits that can affect health. Healthy lifestyle indicators such as not smoking, diet and regular physical activity (Husin et al., 2019). According to the results of research conducted by Iftita Rochman and Merry Adriani (2013) at Trimurti Surabaya High School, there is a relationship between lifestyle factors such as smoking behavior and drug consumption and nutritional status. And there is no relationship between lifestyle as usual sports and drinking behavior and nutritional status in adolescents. This shows that not all lifestyle indicators are related to nutritional status.

Based on the above description, the researcher is interested in conducting research to determine whether there is a relationship between lifestyle and nutritional status in adolescents in Central Jakarta.

Method Of Research

This type of research uses a cross-sectional research design, which is a type of research that emphasizes the time of measurement or observation of the independent and dependent variables only once at that time (Notoatmodjo, 2018). Determining the number of samples was calculated using the two-proportion difference hypothesis test formula according to Lemeshow, and the sampling technique used was probability sampling with proportional random sampling, namely the technique of taking proportions to get a representative sample and taking subjects from the specified area so that it is balanced (Isgianto, 2017). This study's sample size was 135 people between the ages of 15 and 18. This study makes use of primary data types. Direct interviews with respondents were used to collect primary data (Sugiyono, 2016). The following information is required for this study: the respondent's identity, namely name, age, gender, and date of birth. Measurements of BMI/A and the respondent's lifestyle include physical activity, smoking behavior, and sleep duration.

Data analysis is the process of reducing data to a more readable form, primarily through univariate and bivariate analysis. The goal of univariate analysis is to use descriptive statistics to describe the characteristics of each research variable. The results of these statistical calculations form the basis for further calculations (Sitoyo & Sodik, 2015). The Chi square statistical test is used in bivariate analysis to determine the significance of the independent and dependent variables, which is used to test the descriptive hypothesis if the population consists of two or more, then the data is nominal and the sample is large (Sugiyono, 2013). The prevalence ratio is the ratio between the number of respondents with cases of poor nutritional status at one time and the total number of respondents. PR calculations are carried out to find out which groups have a greater risk than other groups. To find out the degree of relationship between the independent and dependent variables can be known by calculating the PR.

Research Result

Tabel 1. Summary of nutritional status and lifestyle in adolescents

Variable	Category	Frequency	
		n	%
Nutritional status	Not good	74	54.8
	good	61	45,2
Physical Activity	Mild	83	61.5

	Moderate	52	38,5
Smoking Behavior	Smoking	29	21,5
	Not smoking	106	78,5
Sleep Duration	Not good	50	37.0
	Good	85	63,0

Based on Table 1 shows that the majority of respondents with poor nutritional status were 74 people (54.8%), mild physical activity were 83 people (61.5%), not smoking were 106 people (78.5%), and good sleep duration as many as 85 people (63.0%).

Table 2. Summary of relations between lifestyle and nutritional status

Variable	Nutritional status				Pvalue	PR(95%CI)
	Not good		Good			
	n	%	n	%		
Physical Activity						
Mild	54	65,1	29	34.9	0.004	1,692
Moderate	20	38.5	32	61.5		(1.159-2.469)
Smoking Behavior						
Smoking	17	58.6	12	41,4	0.799	1,090
Not Smoking	57	53,8	49	46,2		(0.766-1.552)
Sleep Duration						
Not good	38	76.0	12	24.0	<0.0001	1,794
Good	36	42,4	49	57.6		(1.339-2.405)

Based on Table 2 shows that of the three independent variables there are two variables related to nutritional status in adolescents with pvalue <0.05, namely physical activity variables (0.004) and sleep duration (<0.0001), while smoking behavior does not relation with nutritional status (0.799).

Discussion

Respondents Nutritional Status
Based on table 1 nutritional status the study, it was shown that most of the adolescents with poor nutritional status (54.8%) were in the categories of undernutrition (29.2%), excess nutrition (21.5%) and obesity (3.7%). The percentage of nutritional status based on Riskesdas for 2018, this figure exceeds the national prevalence of 8.1% for wasting and 13.5% for obesity. In addition, the percentage of undernourished and overweight was also higher than the prevalence of emaciation and obesity in the DKI Jakarta area, namely 8.9% for thinness and 21.1% for obesity.

The findings of this study are consistent with Mulyasari research (2017), besed BMI/Age which found that most students had abnormal nutritional status (55.2%). This is likely influenced by various factors, such as nutrient intake, gender differences, education, consumption habits of vegetables and fruit, physical activity and other factors. Nutritional problems, such as undernutrition and overnutrition, will increase the risk of non-communicable diseases. Especially in young women, if this problem continues into adulthood and marriage, it will affect the health of the futus they contain.

Relation Physical Activity with Nutritional Status

Physical activity is one of the factors that influence nutritional status, which is an important component of energy expenditure. According to the study's findings, the majority of respondents with poor nutritional status (65.1%) had a low level of activity. Low physical activity is a risk factor for obesity, where there is an influence between eating a lot and low physical activity can cause obesity (Rizkiriani, 2014). The Chi square test results showed that the pvalue = 0.004, indicating that there is a significant relationship between adolescent physical activity and nutritional status.

The results of this study are in line with Yulianingsih research (2017), showing that there is a significant relationship between physical activity and the nutritional status of adolescents at SMKN 03, with a pvalue = 0.000. Serly et al., (2015) discovered a significant relationship between physical activity and nutritional status with a pvalue = 0.000 in their study. The reason for the high level of physical activity is that many teenagers now prefer to use motorized vehicles compared to walking. This condition causes the intensity of physical activity to decrease. According to the World Health Organization (2010) adolescents should engage in physical activity of a moderate intense for at least 60 minutes each day.

Relation between smoking behavior and nutritional status

Smoking behavior is also a lifestyle that cannot be denied from the lives of teenagers. According to the study's findings, some respondents with poor nutritional status smoked (58.6%). This is presumably because the substances contained in cigarettes can reduce appetite and make a person an addict. The Chi square test revealed a pvalue of 0.799, indicating that there is no significant relationship between adolescent smoking behavior and nutritional status.

The findings of this study are consistent with the findings of Husin et al., (2019), who found no relationship between smoking behavior and nutritional status with a pvalue = 0.072. According to Khudoifah (2018) findings, there is no relationship between smoking behavior and nutritional status of adolescents at SMAN 1 Tengaran, with a pvalue = 0.174. There is no relationship between smoking behavior and the nutritional status of adolescents, but some adolescents with smoking behavior control their nutritional status through a healthy lifestyle such as adequate food intake, exercise and a good sleep duration, this shows concern for matters related to nutrition. Although in this study smoking behavior was not related to nutritional status, adolescents should avoid this behavior because smoking can have a negative impact on themselves and those around them. According to Anita et al., (2015) in cigarettes there are various substances that have a negative impact on users.

Relation between sleep duration and nutritional status

Sleep duration is one of the most important indicators of one's health (Rachmawati et al., 2021). According to the study's findings, the majority of respondents with poor nutritional status (76.0%) had insufficient sleep duration. Based on research findings, some adolescents sleep less than 7 hours (18.5%) and adolescent sleep deprivation affects hormonal and metabolic changes which can lead to weight gain and obesity. The Chi square test yielded a pvalue = 0.0001, indicating that there is a significant relationship between adolescent sleep duration and nutritional status.

The findings of this study are consistent with the findings of Intan Hartanigrum et al., (2020), who discovered a relationship between sleep duration and nutritional status with a pvalue = 0.006. The results revealed that the majority of respondents (87.7%) slept for less than 8 hours. Another study, conducted by Rachmawati et al.,

(2021), discovered that sleep duration has a significant relationship with the prevalence of obesity pvalue = 0.000. According to the Ministry of Health (2018) the need for sleep for each individual is adjusted fo age because as you get older the need for sleep will decrease. Whereas 7 to 9 hours of sleep per day are recommended for adolescents aged 12 to 18 years old.

Conclusion

Based on the findings of a study on the relationship between lifestyle and nutritional status in adolescents in Central Jakarta, the following conclusions can be drawn: Adolescent nutritional status is mostly poor (54.8%), there is a relationship between physical activity and nutritional status pvalue = 0.004, sleep duration and nutritional status pvalue = <0.0001, and there is no relationship between smoking behavior and nutritional status pvalue = 0.799

Acknowledgement

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Menstrual Cycle of Adolescent Girls Aged 15-18 Years in SMAN 74 Jakarta : The Effect of Vitamin and Mineral Intakes and Physical Activity

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Abstract

Purpose: This study aims to determine the relationship between the intake of vitamins (vitamin C and vitamin D), minerals (iron and calcium), and physical activity with the menstrual cycle in adolescent girls at SMAN 74 Jakarta. *Methodology:* The population used was all adolescent girls and a sample of 87 adolescent girls at SMAN 74 was obtaines. The study design use cross-sectional with a purposive sampling technique. The SQFFQ using interviews is used to get data on vitamin and mineral intake, a questionnaire is used to get the data on the menstruation cycle, the IPAQ using interviews is used to get the data on physical activity among women student in SMAN74 Jakarta. Statistical analysis using chi-square with a significant level of 5% (vitamin C, iron, and physical activity) and fisher exact (vitamin D and calcium). *Results:* The results of this study found menstrual cycle irregularity is still high adolescent girls, adequate vitamin C intake, insufficient intake of vitamin D, iron, calcium, and heavy physical activity in adolescent girls. This study that states there is a significant relationship between iron intake and the menstrual cycle, while intake of vitamin C, vitamin D, calcium, and physical activity there is no relationship. *Applications/Originality/Value:* This study that states there is a significant relationship between iron intake and the menstrual cycle. For adolescent girls, they should increase their intake of nutritional sources, especially iron so that they pay more attention to the menstrual cycle they experience for reproductive health

Introduction Section

Menstruation is defined as the process of shedding the uterine wall with bleeding due to failure of fertilization (Dya & Adiningsih, 2019). The menstrual cycle is the start of the first day of menstruation until the arrival of the next menstruation. The normal menstrual cycle is 21 to 35 days, then menstrual cycle disorders include polymenorrhea (<21 days), amenorrhoea (>3 months), and oligomenorrhea (>35 days) (Sitoayu et al., 2017).

WHO data for 2018, the prevalence of women in the world experiencing irregular menstruation is 80% (Purwati & Muslikhah, 2021). The average prevalence of menstrual cycle irregularities in Indonesian women in the last 1 year between the ages of 10-59 years is 13.7%. The 2013 Basic Health Research (Riskesdas) prevalence showes menstrual irregularities aged 10-29 years is 16.4% (Martini et al., 2021). The prevalence in Indonesia is 11.7% of adolescent girls aged 15 to 19 years having menstrual cycle disorders, of which 14.9% are women in urban areas and 12.5% in villages. The highest abnormal menstrual cycles were in Gorontalo City, 23.3%, and DKI Jakarta, 17.2% (Riskesdas, 2010). The menstrual cycle needs to be considered because it wfill affect the quality of life of female adolescents (Sharma, 2014).

Factors that affect the menstrual cycle include nutritional status, nutrient intake, stress, physical activity, diet, weight, endocrine problems, and sleep quality (Wahyuningsih, 2018). The short-term impact that occurs if a woman has irregular menstrual cycles, polymenorea <21 days, will cause anemia which is characterized by paleness and dizziness causing female youth to be absent (Sinaga et al., 2017). The long-term effects that occur if women have abnormal menstrual cycles include affecting fertility rates, resulting in uterine polyps, uterine sarcomas, polycystic ovary syndrome, and endometrioma cysts (Lestari & Amal, 2019).

Adolescent girls who lack nutritional intake have the potential to pose a potential risk of nutrient deficiency due to monthly menstruation (Wahyuni & Dewi, 2018). One of the needs for micro intake, especially vitamins and minerals needed by adolescent girls is the intake of vitamin C, vitamin D, iron, and calcium. Iron imbalance can cause anemia (Kemenkes, 2021) and can reduce blood oxygen levels in the hypothalamus, which can affect levels of the hormones estrogen and progesterone, resulting in disruption of the menstrual cycle. Vitamin C

plays a role in increasing ovulation, affecting endometrial thickness, ovarian hormones in the luteal phase, and low vitamin C will slow down the absorption of iron, therefore the menstrual cycle becomes irregular and vice versa (Wahyuni & Dewi, 2018). The study conducted by Wahyuni (2018) stated that there was a relationship between iron, vitamin C intake, and the menstrual cycle in adolescent girls (Wahyuni & Dewi, 2018).

Another vitamin, namely vitamin D, is necessary for hormone production and controls ovulation and the menstrual cycle. The study conducted by Kia (2015) stated that the group with menstrual disorders showes a relationship between vitamin D intake and the occurrence of the menstrual cycle (Lugito et al., 2018). Another important micronutrient is calcium, which plays a role in the regularity of the menstrual cycle and the maturation of follicles. The study conducted by Listiana (2019) stated that there was a relationship between calsium intake and the menstrual cycle in adolescent girls (Listiana et al., 2019).

Another factor in the menstrual cycle is physical activity. Physical activity is body movement produced by skeletal muscles that require energy expenditure. The study conducted by Naibaho (2014) stated that there was a relationship between physical activity and the menstrual cycle in adolescent girls. Strenuous activity can reduce the production of the hormone estrogen (Naibaho et al., 2014). Hypothalamic-pituitary ovarian suppression is called hypothalamic functional amenorrhea, characterized by inhibition of GnRH (Gonadotropin Releasing Hormone) which affects the secretion of LH (Luteinizing Hormone), and FSH (Follicle Stimulating Hormone), estrogen and progesterone. A decrease in the frequency of LH and FSH release from the pituitary gland puts pressure on the ovaries, which causes abnormal menstrual cycles (Rachmawati & Murbawani, 2015).

This study aimed to examine the relationship of vitamin C and D, iron (Fe) and Calcium (Ca) intakes of the adolescent student in SMAN 74 Jakarta and also physical activity on their menstrual cycle. This study focus in adolescent girls aged 15-18 years because it contribute to fertility.

Material And Method

The research is conducted using a cross-sectional design. The population used is all adolescent girls at SMAN 74 Jakarta and a sample of 87 adolescent girls at SMAN 74 aged 15-18 years is obtaines. Data collection is carried out using primary data, namely the menstrual cycle, intake of vitamins (vitamin C and vitamin D), minerals (iron and calcium), and physical activity as well as secondary data used, namely the number of female students aged 15-18 years at SMAN 74 Jakarta and well sourced. from journals, books, and articles. The SQ-FFQ using interviews is used to get data on vitamin and mineral intake, a questionnaire adapted from Luthfa (2017) is used to get the data on the menstruation cycle, IPAQ using interviews is used to get the data on physical activity among women student in SMAN74 Jakarta. Statistical test results using statistical software using the chi-square test with a significant degree of 5% (intake of Vitamin C, iron, and physical activity) and fisher exact (intake of vitamin D and calcium).

Result

Adolescent characteristics
This study includes the dependent variable and independent variable. The dependent variable is the menstrual cycle and the independent variable consists of the intake of vitamins (vitamin C and vitamin D), minerals (iron and calcium), and physical activity. Based on Table 1 shows that the frequency distribution based on the age of the respondents is at most aged 15 years. While the distribution of the frequency of adolescent girls based on the age of menarche is at most aged 12 years. Showes that half of the respondents experienced abnormal menstrual cycles as many 51.7%. Abnormal menstrual cycles (<21 days and >35 days) and normal menstrual cycles (21-35 days) (Hidayah & Sab'ngatun, 2015). It can be seen that some respondents have adequate vitamin C intake as much as 79.3% (seventy nine percent). it can be seen that some respondents have less intake of vitamin D as much as 96.6% (ninety sevent percent). It can be seen that some respondents have less iron intake as much as 85.11%. it can be seen that some respondents have less calcium intake as much as 92%. It can be seen that some of the respondents' physical activity is in the minimally and HEPA respectively as much as 49.4%. This physical activity is calculated using the International Physical Activity Questionnaire (IPAQ) method. Light

physical activity (<600 MET-minutes/week), moderate (600-3000 MET-minutes/week), vigorous (>3000 MET-minutes/week) (IPAQ, 2005).

Table 1. Frequency Distribution Based on Variables

Variabel	n	%
Menstrual Cycle		
Normal	42	48,3
Abnormal	45	51,7
Vitamin C intake		
Adequate	69	79,3
Inadequate	18	20,7
Vitamin D intake		
Adequate	3	3,4
Inadequate	84	96,6
Iron intake		
Adequate	13	14,9
Inadequate	74	85,1
Calcium intake		
Adequate	7	8
Inadequate	80	92
Physical activity		
Inactive	1	1,1
Minimally active	43	49,4
HEPA active	43	49,4

The Relationship Of Vitamins intake, Minerals Intake, And Physical Activity With Menstrual Cycle

The Relationship Of Vitamins intake, Minerals Intake, And Physical Activity With Menstrual Cycle is analysed using chi-square correlation test and fisher exact Table 2

Table 2, The Relationship of Vitamins intake, Minerals Intake, And Physical Activity With Menstrual Cycle

variabel	Menstrual Cycle				Total	PR (95% CI)	P
	Abnormal		Normal				
	n	%	n	%			
Vitamin C intake							
Adequate	36	52,5	33	47,8	69	0,917	
Inadequate	9	50	9	50	16	(0,325-2,587)	0,869
Vitamin D intake							
Adequate	3	100	0	0	3	0.500	0,242
Inadequate	42	50	42	50	84	(0,404-0,619)	
Iron intake							
Adequate	10	76,9	3	23,1	13	0,269 (0,69-1,058	0,049
Inadequate	35	47,3	39	52,6	74		
Calcium intake							
Adequate	6	85,7	1	14,3	7	0,159	0,111
Inadequate	31	48,8	41	51,2	80	(0,018-1,377)	

Physical activity							
Inactive-Minimally active	22	50	22	50	44	0,870 (0,375-	0,745
HEPA active	23	53,5	20	46,5	43	2,017)	

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Respondents with abnormal menstrual cycles are greater than respondents with sufficient vitamin C intake, namely as much as 52.5%. The results of the chi-square statistical test showes is a value of P=0.869, which means that there is no significant relationship between vitamin C intake and the menstrual cycle (P>0.05). From the analysis results, it is also obtaines that the value of PR = 0.917 means that adolescent girls who have less vitamin C intake are 0.917 times more likely to experience abnormal menstrual cycles compared to adolescent girls whose intake of vitamin C is good.

Respondents with abnormal menstrual cycles are greater than respondents with less vitamin D intake, namely as much as 50%. The results of fisher exact statistical test showes a P value = 0.242, which means that there is no significant relationship between vitamin D intake and the menstrual cycle (P> 0.05). From the analysis results, it is also obtaines that the value of PR = 0.500 means that adolescent girls who have less intake of vitamin D are 0.500 times more likely to experience abnormal menstrual cycles compared to adolescent girls whose intake of vitamin D is good.

Respondents with abnormal menstrual cycles are greater than respondents with less iron intake, namely as much as 47.3%. The results of the chi-square statistical test showes a value of P=0.049, which means that there is a significant relationship between iron intake and the menstrual cycle (P<0.05). From the results of the analysis, it is also obtaines that the value of PR=0.269 means that adolescent girls who have less iron intake are 0.269 times more likely to experience abnormal menstrual cycles compared to adolescent girls whose intake of iron is good.

Respondents with abnormal menstrual cycles are greater than respondents with less calcium intake, namely as much as 48.8%. The results of Fisher's exact test statistical test showes a value of P = 0.111, which means that there is no significant relationship between calcium intake and the menstrual cycle (P> 0.05). From the analysis results, it is also obtaines that the value of PR = 0.159 means that adolescent girls who have less calcium intake are 0.159 times more likely to experience abnormal menstrual cycles compared to adolescent girls who have good calcium intake.

Respondents with abnormal menstrual cycles are greater than respondents with HEPA physical activity, namely as much as 53.5%. The results of the chi-square statistical test showes a value of P=0.745, which means that there is no significant relationship between physical activity and the menstrual cycle (P>0.05). From the analysis results, it is also obtaines that the value of PR=0.917 means that adolescent girls who have heavy activities are 0.745 times more likely to experience abnormal menstrual cycles compared to adolescent girls who have light-moderate activities.

Discussion

The age characteristics of the respondents in this study are around 15-17 years. Characteristics based on the age of most respondents at the age of 15 years. Ages 15-17 years are included in the early adolescent stage (13-17 years). In this period, adolescent girls experience discomfort during menstruation due to disturbances in the cycle. Teenagers complain about various menstrual problems, such as menstrual cycle irregularities, menorrhagia, dysmenorrhea, and related symptoms (Wijayanti et al., 2017).

As for the characteristics of the menarche age of respondents with ages ranging from 10-15 years. Characteristics of the age of menarche most of the respondents occurred at the age of 12 years (40.2%). In Indonesia, the age of menarche for women ranges from 11 to 13 years. According to Riskesdas 2010, the average age of menarche for adolescent girls in DKI Jakarta is 11-12 years, which is 30.3% (Riskesdas, 2010). In Asia, such as Hong Kong and Japan, the average age of menarche for adolescent girls is 12.38 and 12.2 years, respectively (Susanti & Wulandari, 2017).

Data on menstrual cycle irregularities in this study are higher than Riskesdas data (Basic Health Research) in 2013 showing that the prevalence of menstrual irregularities in the 10-29 year-old group is 16.4% (Martini et al.,

2021). The prevalence in Indonesia is 11.7% of adolescent girls aged 15-19 years having irregular menstrual cycles, compared to 14.9% of women living in urban areas and 12.5% in rural areas. Irregular menstrual cycles in DKI Jakarta are 17.2% (Riskesdas, 2010).

From the results of the above study, it is found that there is no significant relationship between vitamin C intake and the menstrual cycle, possibly because there are many other factors, one of which is the collection and recording of food consumption data by respondents using the Semi Quantitative Food Frequency (SQ-FFQ) method and the results obtaines the average intake of vitamin C in adolescents is 375.69 mg. It is known that the respondent's intake of vitamin C is quite marked by the fact that adolescent girls often consume supplements, drinks composed of vitamin C, and fruit such as guavas, bananas, and oranges.

This study is in line with Arisanti (2022) in Denpasar stated that there was no significant relationship between vitamin C intake and that menstrual cycle (Arisanti, 2022). Another study by Fernanda (2021) stated that there was a significant relationship between vitamin C intake and the menstrual cycle, that the better the vitamin C intake, the more regular the menstrual cycle (Fernanda et al., 2021). This study is also not in line with Wahyuni (2018) in Jakarta stated that the more intake of vitamin C and iron consumed (based on body needs), the more regular the menstrual cycle and vice versa (Wahyuni & Dewi, 2018). Whereas this study the number of respondents with abnormal menstrual cycles with sufficient vitamin C intake. However, the respondent's iron intake is less than the RDA.

The need for vitamin C in female adolescents aged 13-18 years according to the 2019 Nutrition Adequacy Rate (RDA) is 65-75 mg per day (Kemenkes, 2019). Vitamin C acts as an antioxidant that can help protect endometrial tissue from oxidative stress, therefore it can be said that proper/sufficient vitamin C will also have a beneficial effect on fertility and menstrual cycle regularity (Fernanda et al., 2021). However, the consumption of vitamin C is not the only factor triggering the occurrence of abnormal menstrual cycles in adolescents, several other supporting factors cause these adolescents to experience abnormal menstrual cycles such as stress, nutritional status, diet, physical activity, weight, endocrine disorders, and sleep quality (Wahyuningsih, 2018).

There is no relationship between vitamin D intake and the menstrual cycle in this study, possibly due to many other factors, one of which is the collection and recording of food consumption data by respondents using the SQFFQ method and the average result of vitamin D intake in adolescents is 4.18 μg. In this study, respondents had insufficient intake of vitamin D, and most of the respondents only consumed eggs and milk as a source of vitamin D. Adolescent girls also states that the availability of food provided by their parents is rare so respondents more often consumed food from outside.

This study is in line with Lugito (2018) in Sukoharjo stated that there was no significant relationship between vitamin D intake and the menstrual cycle. Another study by Jukic (2016) in Spain stated that a decrease in vitamin D intake in women causes the menstrual cycle to become irregular and longer. The need for vitamin D in female adolescents aged 13-18 years according to the 2019 RDA is 15 μg per day (Kemenkes, 2019). Vitamin D is needed to meet the nutritional needs of adolescents because it is used for hormones, boosting the immune system due to inflammation during menstruation, controlling ovulation, and the menstrual cycle. During the menstrual period, adolescent girls need adequate nutrition to meet their nutritional needs and overcome menstrual disorders (Lugito et al., 2018). However, insufficient consumption of vitamin D is not the only factor triggering the occurrence of abnormal menstrual cycles in adolescents, several other supporting factors cause these adolescents to experience abnormal menstrual cycles such as stress, nutritional status, diet, physical activity, weight, disorders endocrine, and sleep quality (Wahyuningsih, 2018).

There is a relationship between iron intake and the menstrual cycle in this study, and iron intake is a factor causing irregular menstrual cycles. This is related to adolescent girls experiencing menstruation every month and growth and development, so they need more iron (Utri, 2020). Iron imbalance can cause anemia (Ministry of Health, 2021) and can reduce blood oxygen levels in the hypothalamus, so that it can affect levels of the hormones estrogen and progesterone, resulting in disruption of the menstrual cycle (Wahyuni & Dewi, 2018).

This study, respondents had less iron intake, most of the sources of iron consumed by respondents came from bananas, tempeh, tofu, eggs, and chicken. Adolescent girls also states that the availability of food provided by their parents is rare, so respondents more often consumed food that came from outside. Heme iron derived from animal foods can be absorbed more than non-heme iron (Arisanti, 2022).

Iron has the function of producing hemoglobin, low iron in the body affects the amount of hemoglobin that falls below normal. The role of hemoglobin is to provide oxygen to the body, such as the brain. The hormonal system supported by the pituitary gland in the brain controls the menstrual cycle. If brain activity decreases due to less optimal O_2 (Oxygen), thus affecting the function of the hypothalamus. A dysfunctional hypothalamus will also affect the work of the hormones estrogen and progesterone to be delayed. As a result, menstrual cycles are often irregular and prolonged (oligomenorrhea) (Wahyuni & Dewi, 2018).

Factors that affect iron absorption, iron absorption occurs in the small intestine with the help of 2 types of special protein transport vehicles in the mucosal cells of the small intestine that help absorb iron, namely transferrin, and ferritin. Amino acids bind to iron and help with its absorption. Vitamin C greatly assists the absorption of nonheme iron by converting the ferric to the ferrous form. Phytic acid and oxalic acid in vegetables inhibit iron absorption. Tannins, which are polyphenols and are found in tea, coffee, and several types of vegetables, and fruit, also inhibit iron absorption (Almatsier, 2016).

This study is in line with Wahyuni (2018) in Jakarta stated that there was a significant relationship between iron intake and the menstrual cycle (Wahyuni & Dewi, 2018). Another study conducted by Arisanti (2022) in Denpasar stated that there was a significant relationship between iron intake and the menstrual cycle in adolescent girls (Arisanti, 2022). Another study by Listiana (2019 in Jakarta) also stated that there was a significant relationship between iron intake and the menstrual cycle (Listiana et al., 2019).

There is no relationship between calcium intake and the menstrual cycle in this study, possibly due to many other factors, one of which is the collection and recording of food consumption data by respondents using the SQ-FFQ method and the average calcium intake in adolescents is 462.19 mg. This study, respondents had insufficient calcium intake, most of the respondents only consumed spinach, tempeh, tofu, eggs, chicken, and milk as calcium. Adolescent girls also states that the availability of food provided by their parents is rare, so respondents more often consumed food that came from outside.

This study is in line with Wahyuni (2020) in Tangerang stated that there was no difference in calcium intake between normal and abnormal menstrual cycles (Wahyuni et al., 2020). Another study by Nahdah (2022) in Tangerang stated that there was no significant relationship between calcium intake and the menstrual cycle (Nahdah et al., 2022). The need for calcium in female adolescents aged 13-18 years according to the 2019 RDA is 1200 mg/day. Calcium plays a role in the regularity of the menstrual cycle and follicular maturation and in controlling parathyroid secretion. Where these hormones are related to the menstrual cycle, by maintaining the secretion of GnRH hormones for the release of FSH and LH hormones in the pituitary gland for the use of estrogen and progesterone, which are responsible for follicular maturation during the menstrual cycle (Listiana et al., 2019).

The need for calcium in female adolescents aged 13-18 years according to the 2019 RDA is 1200 mg/day. Calcium plays a role in the regularity of the menstrual cycle and follicular maturation and in controlling parathyroid secretion. Where these hormones are related to the menstrual cycle, by maintaining the secretion of GnRH hormones for the release of FSH and LH hormones in the pituitary gland for the use of estrogen and progesterone, which are responsible for follicular maturation during the menstrual cycle (Listiana et al., 2019).

Inadequate calcium consumption is not the only factor triggering the occurrence of abnormal menstrual cycles in adolescents, several other supporting factors cause these adolescents to experience abnormal menstrual cycles such as inhibition of calcium absorption which can also be one of the contributing factors namely oxalic acid, found in spinach, other vegetables, and cocoa, inhibit calcium absorption by forming insoluble calcium oxalate salts. Phytic acid, a phosphorus-containing compound found primarily in cereal husks, also forms insoluble calcium phosphate that cannot be absorbed. Fiber reduces calcium absorption, possibly because it shortens the transit time of food in the digestive tract, thereby reducing absorption. Mental/physical stress tends to decrease absorption and increase excretion (Almatsier, 2016). In addition, stress, nutritional status, diet, physical activity, weight, endocrine disorders, and sleep quality are factors for abnormal menstrual cycles (Wahyuningsih, 2018).

There is no relationship between physical activity and the menstrual cycle in this study, possibly because there are many other factors, one of which is due to the understanding and filling in of the respondents' physical activity data using a modified IPAQ questionnaire (Hastuti, 2013). Respondent's activities are classified as heavy,

because schools have started 100% offline, carrying out activities outside school hours for example hobbies (extracurriculars and sports), as well as activities at home such as cleaning the house.

This study is in line with Astry (2019) stated that there was no significant relationship between physical activity and the menstrual cycle in adolescent girls (Astry, 2019). Another study by Triany (2018) in Pekalongan also stated that there was no significant relationship between physical activity and the menstrual cycle in adolescent girls (Triany et al., 2018). This study the activity of the respondents is classified as heavy, due to 8.5 hours of study activities at school, 2 hours/week of sports hours, extracurriculars, transportation back and forth from school, walking, cleaning the house (sweeping and mopping), sports carried out at home, and hobbies do. Strenuous activity can reduce the production of the hormone estrogen (Naibaho et al., 2014). This physical activity is calculated using the IPAQ method. Excessive physical activity can cause hypothalamic dysfunction, interfere with GnRH secretion, and cause LH and FSH pulsations to decrease in stimulating follicular maturation and the formation of the hormone estrogen. This can disrupt the menstrual cycle (Rachmawati & Murbawani, 2015).

Adolescents with strenuous physical activity disrupt the menstrual cycle. When carrying out strenuous activities, the body experiences an energy deficit (increased metabolism) which suppresses the ovulation cycle, inhibits gonadotropin-releasing hormone (GnRH) secretion, and reduces LH fluctuations. This disrupts the menstrual cycle (Kusumawati et al., 2021). However, physical activity is not the only factor triggering the occurrence of abnormal menstrual cycles in adolescents, several other contributing factors cause these adolescents to experience abnormal menstrual cycles such as nutrient intake, nutritional status, stress, diet, weight, endocrine disorders, and sleep quality (Wahyuningsih, 2018).
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Conslusions and Recommendations

Most of the young female respondents at SMAN 74 Jakarta had menstrual cycles in the abnormal category (51.7%), vitamin C intake is in the sufficient category (79.3%), vitamin D intake is in the less category (96.6%), iron intake in the less category (85.1%), and calcium intake in the less category 92%, as well as moderate & severe physical activity (49.4%). There is a significant relationship between iron intake (p-value = 0.049) and the menstrual cycle. There is no significant relationship between intake of vitamin C (p-value= 0.869), vitamin D (p-value= 0.242), calcium (p-value= 0.111), and physical activity (p-value= 0.747) with cycles of menstruation. Schools should hold counseling about maintaining reproductive health, so that adolescent girls are more concerned and concerned about their reproductive health, including during menstruation and good sources of nutrients consumed to reduce menstrual cycle irregularities in adolescent girls. Adolescent girls should pay more attention to and increase their daily intake of sources of nutrients, especially iron intake so that adolescents are more concerned about the menstrual cycle they are experiencing for reproductive health.

Acknowledgement

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Comparison of Success Rates of Biodentine and MTA Materials in Pulp Revascularization Treatment of Immature Permanent Teeth

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Abstract

Purpose: To determine the success rate of biodentine and MTA materials in pulp revascularization treatment of immature permanent teeth.

Methodology: The literature review approach was used in the research design, which was a means of gathering data from library sources. What performed data searches on Pubmed, ScienceDirect, and Google Scholar sites by specified keywords and filtered based on their association with the research title, inclusion, and exclusion criteria to ensure that publications fit the requirements.

Results: Revascularization has been shown to be effective when performed on teeth with disinfected root canals, so it is important to obatain a good coronal seal. Coronal seal used biodentine is better than MTA. Biodentin has a better consistency, allows its condensation without apical displacement, and the short setting time allows the composite restoration to be placed simultaneously. Biodentin has the same mechanical properties as human dentin with very low cytotoxicity and can overcome the clinical drawbacks of MTA. Biodentine is tooth-colored and does not cause discoloration.

Applications/Originality/Value: *Literature review* contributes to comparing Success Rates of Biodentine and MTA Materials to increase knowledge and success in Immature Permanent Dental Pulp Revascularization Treatment. The results obtained are better because *the literature review* of this study compares several journals with different research objects, research samples, methods, and results.

Introduction Section

Immature permanent teeth are young or newly erupted teeth with incomplete root tip formation. The eruption of permanent teeth begins from the crown, usually taking about three years to complete root development. The shape of the developing root is determined by a two-layered cellular structure called the Hertwig epithelial root sheath (Aldakak *et al.*, 2016). Root development after eruption consists of increasing root length, increasing root wall thickness, and narrowing the root canal in the apical region or root tip. Disturbances in the blood supply to HERS due to pulpal necrosis can interfere with cell proliferation and differentiation, causing root development to stop. Abnormal complex tissue deposition can also occur in this situation (Zizka *et al.*, 2018).

Termination of root growth is a significant problem in endodontic treatment. Tooth root growth that has the potential not to continue occurs in young or immature teeth with an open apex. Possible indications of immature permanent teeth experiencing cessation of root formation include trauma (33.8%), den evaginates (25.9%), and dental caries (12.9%) (Mccabe, 2015). This condition causes the roots of the teeth to be short and the walls thin so that they fracture easily. The results of these data show how crucial endodontic treatment is in maintaining the vital pulp of immature permanent teeth due to trauma and dental caries. If this problem is not treated immediately, it can cause bacteria to enter the exposed pulp, which can cause other diseases such as reversible pulpitis, irreversible pulpitis, and pulp necrosis. (Singh *et al.*, 2017).

In the case of developing permanent teeth, endodontic therapy typically involves apexification. Application of calcium hydroxide [Ca(OH)2] paste or one-visit apical sealing with the placement of an apical barrier using mineral trioxide aggregate was used in the procedure for apexification (MTA) (Godoy, 2012). Apexification the

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disadvantage is that there is a risk of fracture that may occur due to the cessation of thickening of the dentin wall. Alternative treatment procedures, such as implants in pediatric patients, are contraindicated. Implants can not be done because framework The craniofacial area in children is still developing, and implants can interfere with this developmental process (Li *et al.*, 2019). Alternative procedure gradual apical closure through surgery can be performed, but the procedure is invasive, and the risk of complications is greater clinically and psychologically, especially for children. New treatment alternatives are urgently needed to avoid the risk of future fractured front and are certainly appropriate for children both clinically and psychologically (Hargreaves *et al.*, 2013).

Long-term success rate apexification use a higher MTA than apexification using Ca(OH)2. Apexification with MTA takes less time with just one visit in comparison to apexification with Ca(OH)2, need many times-visits over a long time(6-24 months with an average of a year± seven months) (Jeeruphan *et al.*, 2012)

Revascularization, the newest method for treating additional root growth brought on by immature permanent teeth with incomplete (long) root development and wide open apex because the periapical tissue surrounding the immature permanent tooth has an abundant blood supply, is a regenerative treatment and a biologically based alternative approach to endodontic treatment. It has a significant amount of stem cells that can regenerate damaged tissue (Bukhari *et al.*, 2016). Over time, root fracture incidence is intended to be decreased by revascularization. The treating the pulp involves chemically disinfecting the root canal with irrigation solutions and intracanal therapy, followed by the induction of clots, coronal sealing of the MTA, and placement of a crown restoration (Albuquerque *et al*, 2014). Revascularization was defined as the invagination of undifferentiated periodontal cells from the apical area of an immature permanent tooth.

In this writing, the author is interested in digging deeper about revascularization pulp, especially in immature permanent teeth, and its level of effectiveness.

Literature review

Invagination of undifferentiated cells into the root canals of developing immature permanent teeth is known as revascularization. The desired results of pulpal revascularization have been linked to periapical cells (root tip development and apical closure) (Sourabh, 2020). The development of vital tissue inside the root canal is referred to as "pulp revitalization." The root canal of the tooth is cleaned and sterilized during regenerative endodontic therapy using the revascularization technique (Rizk *et al.*, 2020).

Immature permanent teeth have multipotent periodontal cells in the periapical regions that have a high potential to differentiate into fibroblasts and cementoblasts. These fibroblasts and cementoblasts differentiate to thicken the dentin wall and complete the apical closure (Shi *et al.*, 2013). In order to allow for the growth of vital pulp tissue from periapical tissue stem cells transported by a blood clot, the root canal is not filled with artificial obturation material. Root tip development and apical closure are caused by the formation of dentine and cementum by periapical stem cells (Hajizadeh *et al.*, 2019).

Apical growth could result from the proliferation of stem cells from the apical papilla inside the root canal as a result of the infusion of blood into the periapical tissues (Shi et al., 2013). Because of the periapical tissues' ability to cause bleeding, these cells have a high proliferative capacity that enables them to be transported into the root canal. (Singh *et al.*, 2017) suggested that different growth factors included in blood clots in dentine may be crucial for cell proliferation within the root canal space. Eventually, the roots of the developing immature permanent teeth close, enabling apical healing through the periodontal tissues.

The revascularization procedure has several stages, as follows:
A. *First Visit*
  1. Dental anesthesia
  2. Isolate with a rubber dam
  3. Creation of coronal cavity access.
  4. Root canal disinfection
     (Singh *et al.*, 2017) It was explained that using chemical and mechanical devices for root canal disinfection is the first step in the endodontic treatment of infected root canals. As a result of the fragile and thin root walls that restrict the use of intracanal irrigation solutions and medications to disinfect immature

permanent teeth, mechanical removal of microorganisms is not advised. Sodium hypochlorite (NaOCl) and chlorhexidine (CHX) are the most frequently used for root canal irrigation worldwide.

The most effective intracanal medication for controlling infection inside the root canal and enabling growth into new tissue to continue root development is *Triple Antibiotic Paste* (TAP). Minocycline, metronidazole, and ciprofloxacin are examples of intracanal medications. Ciprofloxacin and metronidazole are combined to make the antibiotic paste known as "*Double Antibiotic Paste*" (DAP). DAP does not contain minocycline, but it is less effective than TAP at getting rid of DAP bacteria. Antibiotics with nanofiber are known as 3D antibiotics. Antibiotics given in low doses with a gradual drug release will be able to treat the infection and produce a bacterial-free environment in the root canal.

5. After intramedical application, the tooth is temporarily filled in, and the patient is asked to return after 3 to 4 weeks.

B. *Second visit*

6. Do an evaluation
   Acute infection symptoms and signs are looked for during the evaluation process. Revascularization can be used as a form of treatment if there are no symptoms or indicators of infection.

7. Do local anesthesia.

8. Isolate the tooth with a rubber dam and temporarily clean the filling.
   Isolate the tooth with a rubber dam and temporarily clean the filling.

9. Isolate the tooth with a rubber dam and temporarily clean the filling.

10. Perform periapical induction of bleeding
    For immature permanent teeth with necrotic pulp, inducing periapical bleeding into the root canal is a crucial step in the revascularization process. Blood clots that form in the root canals act as a matrix or scaffold in the pulp tissue's wound-healing process. Blood containing fibrin scaffolding material, mesenchymal stem cells, and bioactive growth factors enters the root canal as a result of inducing periapical bleeding. The goal of the periapical bleeding procedure was to fill the entire root canal with blood up to the CEJ. The procedure involved inserting a sterile file 2-3 millimeters outside of the apical foramen to cause bleeding into the root canal. (Jung et al., 2019)

11. Create a blood clot
    A cotton pellet or dry cotton is placed in the cavity approximately 3-4mm into the canal and left for 7-10 minutes to allow the formation of a blood clot.

12. Sealing the coronal pulp
    The root canal filled with a blood clot is then applied collagen barrier (Colla-Plug) just above the blood clot, followed by an application of MTA or biodentine 3-4 mm thick. Coronal pulp sealing materials commonly used are Mineral Trioxide Aggregate (MTA) and Biodentine. The only difference in the response of the pulp to either MTA or Biodentin is the density of the tissue bridges formed. Intracanal drug dressing is carried out in approximately three weeks. (Jung et al., 2019)

13. The final restoration was carried out.

14. Evaluation of treatment success
    Evaluation is carried out through clinical examination and radiographic examination, which is carried out at least after 12 to 18 months to evaluate root development.
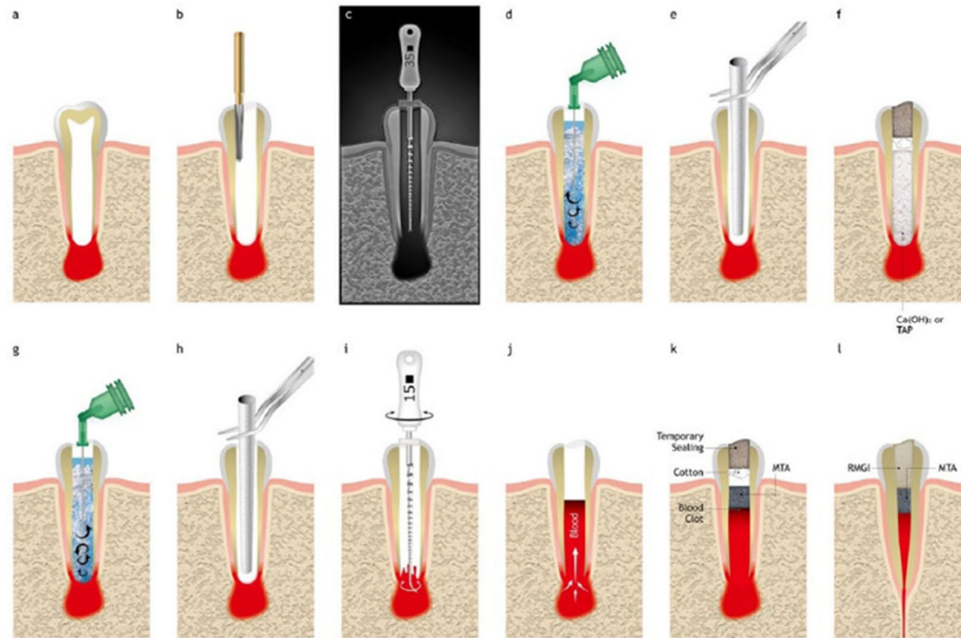
Figure 1. Schematic illustration of the revascularization procedure. Revascularization is considered for immature permanent teeth with open apex, pulpal necrosis, and apical periodontitis. (a) After accessing the root canal. (b) Gently irrigate the coronal section (a radiograph is required to confirm K-file height). (c) Provides an approximate tooth length, which helps to determine: Working length. Low concentrations of NaOCl (1.5 or less than 3%, 20 mL/channel, 5 minutes) are used for disinfection. (d) Saline irrigation, or 17% EDTA used. After irrigation, drain the canals with paper points. (e) Intracanal drug application, such as: Ca(OH)2 or TAP, is placed and covered with a temporary filling material. (f) After confirming no signs of infection, Final irrigation was carried out with sterile saline and 17% EDTA (g). Dry the root canal with paper points. (h) K-file was inserted 2mm past the apical foramen and rotated to induce bleeding. (i) Blood fills the root canal from the bottom to the CEJ. (j) After the clot has formed, a covering material such as MTA is placed over the clot. (k) Pulp-dentin regeneration leads to root development with apical thickening, elongation, and closure, as well as maintenance of tooth vitality. (Jung et al., 2019)

Before performing revascularization, it was essential to achieve good coronal closure to stop bacterial invasion into the pulp chamber because revascularization only works on teeth with disinfected root canals. Coronal closure materials must be compatible for stem cells to survive and regenerate new, condition-sensitive tissues inside the canal (Aldakak et al, 2016).

For regenerative procedures, MTA is regarded as a recommended material. Since biodentine has the same mechanical properties as human dentin and very low cytotoxicity, it is also required for this procedure and can compensate for MTA's clinical limitations. Among the MTA's drawbacks that necessitate seeking MTA replacement are complex manipulation, a slow setting time, a high cost, and crown discolouration (Jung et al., 2019)

Biodentin is considered an ideal replacement for MTA because it has better consistency allowing perfect condensation, short setting time, low cost, less discolouration, and allows good condensation consistency (Džanković et al., 2020). Biodentin has superior compressive strength and flexibility than MTA. High biocompatibility and excellent bioactivity support this tooth replacement material (Aly et al., 2019).

Method

The literature review approach was used in the research design, which was a means of gathering or collecting data from literary sources connected to the subject to be examined. The data used was secondary data. , and a lot of time. The main or original publications or papers were obtained through Pubmed, Science Direct, and

Google Scholar by putting in the keywords that were identified and corresponded to what was desired in the problem formulation.

The following were the inclusion criteria for this study: Scientific journals or articles on revascularization and immature permanent teeth, full-text scientific journals or articles in pdf format, scientific journals or articles for the last ten years, 2011-2021, Indonesian and English language journals or scientific articles, scientific journals or articles organized by research topic. The following were the study's exclusion criteria: Journals or scientific publications published more than ten years prior to 2011, journals or articles that are not in full text and abstract form, or that are not available over the internet.

Results

From searching data on the Pubmed, ScienceDirect, and Google Scholar pages using predetermined keywords, 103 journals were obtained as initial data. Then journals were filtered based on their association with research titles and inclusion and exclusion criteria found in 31 journals. Re-filtered journals based on the reference year of the last ten years found four journal titles that met the criteria. The results of screening journals that are appropriate and meet the criteria can be seen in table 1.

Table 1. Screening Results for Appropriate Journals and Meets the Criteria

No.	Journal Title	Year	Source	Destination	Research methods	Results
1.	Clinical and Radiographic Evaluation of Biodentine and Mineral Trioxide Aggregate in Revascularization of Non-Vital Immature Permanent Anterior Teeth (Randomized Clinical Study)	2018	*Google Scholar*	Assess clinically and radiographically the effect of using two types of coronal sealing materials in the revascularization of non-vital immature teeth.	Clinical and radiographic assessment to evaluate the success of treatment	Biodentin has better clinical success than MTA. Biodentin has less discoloration than MTA. Evaluation of root length in biodentin is better than MTA.
2.	Sealing Ability of Biodentine versus Proroot Mineral Trioxide Aggregate as Root-End Filling Materials	2018	*Science Direct*	Evaluate the sealing ability of ProRoot MTA and Biodentine as root tip-filling materials.	Fluid filtration method	The sealing ability of ProRoot MTA is superior to Biodentin in the long term.
3.	Sealing Ability of Mineral Trioxide Aggregate, Biodentine, and Glass Ionomer as Root-End Materials: A Question of Choice	2020	*Pubmed*	It was knowing the sealing ability of MTA, Biodentin, and Fuji IX as root tip materials after retrograde ultrasonic preparation.	The dye penetration method was assessed under a stereomicroscope (x10).	Biodentin provides better sealing ability as a root tip material than MTA and Fuji IX. There was no statistically significant difference between the sealing ability of MTA and Fuji IX as a root tip material.

4.	Evaluation of Tooth Discoloration after Treatment with Mineral Trioxide Aggregate, Calcium-Enriched Mixture, and Biodentine in The Presence and Absence of Blood	2019	*Pubmed*	Evaluate tooth discoloration after treatment with mineral trioxide aggregate (MTA), calcium-enriched mixed cement (CEM), and Biodentine.	Spectrophotometric analysis.	Biodentin induces discoloration of the lowest teeth in the presence and absence of blood. The rate of discoloration is significantly lower than that of MTA.

Discussion

It was crucial to achieving a bacteria-tight coronal seal to stop bacterial invasion into the pulp chamber before revascularization was done because it was only effective in teeth with disinfected root canals. The compatibility of the coronal seal material was essential for stem cells to survive and regenerate new, condition-sensitive tissues within the intra-canal environment (El-Khatib *et al.*, 2020). Research results (Aly *et al.*, 2019) Clinical success rates for most cases ranged from (96%) to (100%) for the Biodentine group and (91.66%) to (91.66%) for the MTA group, respectively. Clinical outcomes such as the resolution of biting pain, pain on percussion, mobility, swelling, sinus, and fistula were not statistically significantly different between the two groups (P-value = 0.33). The common disinfection procedure and the effective coronal seal that the two materials used in both groups could achieve can be used to explain this. The results, this information (El-Khatib *et al.*, 2020), A 12-month follow-up revealed that all 20 treated teeth had survived and met the criteria for clinical success outlined in the study (dental survival without clinical symptoms, including pain on percussion or palpation, swelling, sinus, or spontaneous pain) (Džanković *et al.*, 2020). After a 12-month follow-up, one case in the MTA group was determined to have clinically failed due to biting and percussion pain. As stated in several reports, failure might result from increased bacterial growth in the accessory canals, dentinal tubules, or biofilms on the canal walls. As a result, tissue damage is brought on by the canals' re-infection (Madani *et al*, 2019).

Biodentine provides better coronal sealing ability than MTA. The research of (El-Khatib *et al.*, 2020) explained that the differences in microleakage seen in Biodentine compared to ProRoot MTA when evaluated one day after installation could be related to the formation of calcium or phosphate-rich crystal deposits, which increased over time and decreased gaps between the teeth and the material. Root tip filler Because of the MTA's longer setting time, the relatively high MTA ProRoot leakage seen during the first 24 hours may have occurred. One of the most clinically important determining factors is time.(Aly *et al.*, 2019). The risk of the root tip filling material becoming loose or contaminated is decreased by the quick setting time of biodentine (Džanković *et al.*, 2020).

According to a research finding (Džanković *et al.*, 2020) Biodentine's superior sealing capacity is due to its smaller particle size and low porosity. The porosity and average pore size of biodentine are both low, ranging from 0.01 to 0.05 m. Products of the hydration reaction fill the spaces left by the unhydrated cement grains. These physical characteristics help to improve marginal adaptation to the cavity walls and lessen the possibility of leakage. Better penetration into the dentinal tubules is made possible by the material's small pore volume (Aly *et al.*, 2019). MTA's lower sealing ability can be attributed to its larger particle size. This is supported by El-Khatib *et al.* (2020), reported that Biodentine showed better marginal adaptation as a root tip material than MTA and Glass Ionomer Cement.

Evaluation of the success of revascularization treatment can be seen from the increase in root length/coverage. According to study El-Khatib *et al*, (2020) The percentage increase in root length was 5.64 (2.39)% in the biodentine group and 5.02 (1.65)% in the MTA group. This outcome is comparable to the finding made public by Saoud et al. Because biodentine is comparable to typical calcium silicate-based materials, many of its physical, chemical and biological properties are the same as those of MTA. As a result, there was no

statistically significant difference in the percentage increase in root length between the two groups (P-value 0.48). MTA can be replaced with Biodentine because it is almost as effective at improving clinical conditions (Džanković *et al.*, 2020). The correlation coefficient between elapsed time and an increase in root length (mm) was negative, with an R-value of 0.4479, indicating that the shorter the interval between injury and treatment, the more significant the increase in root length (mm). The presence of clinically viable cells, or the capacity of the cells to survive and differentiate, is related to the time of injury; the length of infection is a predictor of this potency (Madani *et al*, 2019).

The success of revascularization treatment can be seen in aesthetics, namely discoloration. Research results from (Aly *et al.*, 2019) Biodentine displayed significantly less discoloration than MTA. The presence of bismuth oxide in the MTA composition is thought to be the cause of the color change. The tooth tissue contains bismuth oxide, which interacts with collagen. As a result, sodium hypochlorite will precipitate as a dark substance. When bismuth oxide is oxidized, its oxygen molecules become unstable and react with the carbon dioxide in the air to create bismuth carbonate, a discoloring agent (Džanković *et al.*, 2020). Iron oxidation in the substance, linked to the calcium aluminoferrite phase in the cement powder, is one additional potential mechanism for MTA-induced discolouration. In its formulation, biodentine substitutes zirconium oxide for bismuth oxide, which is absent. Due to its comparable radiopacity, inability to affect the material's hydration, and lack of colouration, this substitute radiopacifier is adequate (Madani, 2019).

They are taking into account the benefits of Biodentin compared to MTA and keeping in mind that the coronal sealing capabilities of Biodentin are superior to those of MTA, according to research findings. The composite restoration can be placed at the same time as Biodentin's better consistency, ability to allow condensation without apical displacement, and 12-minute set time (El-Khatib *et al.*, 2020). The same mechanical properties as human dentin, very low cytotoxicity, and the ability to circumvent MTA's clinical limitations make biodentine essential for revascularization procedures. Better aesthetics are provided by biodentine because it is coloured like teeth and does not cause discolouration due to material in the orifice (Kaur *et al.*, 2017).

Conclusion

It can be concluded that the success rate of revascularization treatment is higher using biodentine materials than MTA materials.

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The Effectiveness of Neuromuscular Taping (NMT) Application and Core Stability Exercise to Increase Agility in the Case of Jumpers Knee at PTPN V Pekanbaru Soccer School

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Abstract

Purpose: Jumper's knee occurs when there is repeated pressure and pulling in the jumping motion causing pathology in the knee which is caused by the tendons attached to the bottom of the patella experiencing irritation, many factors including the continuous pulling on the patella. The purpose of this study was to assess the effectiveness of the application of Neuromuscular Taping and Core Stability Exercise to increase agility in the condition of jumpers knee conditions in soccer school students.

Methodology: This research method is experimental with randomized control pre-test and post-test group design with different tests in both groups. The sample of football school students and the research location is in the PTPN V Soccer field in Pekanbaru. Participants: 12 active male students aged 14-16 years in one group, given the Neuromuscular Taping application and Core Stability Exercise with jumpers knee pathology, examined and measured with the Agility Illionis Test

Results: the test showed an increase in agility with the Neuromuscular Taping intervention and Core Stability Exercises before the intervention 21.33 ± 1.403 and the mean value after the intervention 14.70 ± 0.815 in one group and Test the research hypothesis using Paired Samples Test with significant results P = 0.000 (P<0.05) with a mean value of 6,631 ± 1,037.

Applications/Originality/Value: The conclusion is the application of Neuromuscular Taping and Core Stability Exercises can increase agility in jumpers knee conditions of PTPN V Pekanbaru soccer school students.

Introduction Section

Jumper's knee is a type of overuse injury also known as patellar tendinosis, patellar tendinopathy, patellar tendinitis, Sinding-Larsen-Johansson disease. This injury is commonly found in sports that involve a lot of jumping and running movements, or repetitive running jumping movements that cause inflammation of the patella tendon (Yılmaz, 2022). Sports that often cause patella tendinitis besides badminton are basketball, football, athletics, volleyball, tennis, figure skaters, baseball, football, bicycle racing, fencing and others. There are also sports that can cause patella tendinitis without any jumping motion, namely weightlifting which is caused by excessive weights when lifting weights (Ortega-Castillo et al., 2020). Apart from sports activities, patellar tendinitis can also be caused not because of exercise but because of doing work that requires a lot of lifting weights such as stock workers in stores. Patella tendinitis can also be caused by conditions such as hips that are too big, a blow to the knee and flat feet can be a cause of patella tendinitis (Boroh, 2016).

One of the physical components of a soccer player is agility. Agility is a component that plays a big role in soccer players to maintain their position so they don't fall easily and get injured when defending and fighting when playing soccer. Soccer players who have good agility have a smaller risk of injury and vice versa, with bad agility the risk of injury will be higher. Agility or agility is a component of the physical condition that is very necessary in sports. Agility in changing movement and direction of movement. Agility is the ability to change quickly and accurately while moving without losing balance. (Amiri-Khorasani et al., 2010.)

Core Stability or Core Exercise by definition is the ability to control the position and movement of the torso through the pelvis and legs to enable optimal production, transfer and control of strength and movement to the terminal segments in integrated kinetic chain activities (Nurpratiwi et al., 2021).

Patellar tendon anatomy

The patella tendon is a straight continuation of the quadriceps tendon, joining the kneecap. The tendon originates inferiorly to the patella bone and inserts into the tibial tuberosity; this tendon is about 6 cm long and about 3 cm wide. The patella tendon functions to help the quadriceps muscle perform knee extension movements, as well as assist active movements to push individuals off the ground in jumping and also function in stabilizing the knee joint in landing (Callaghan et al., 2008).

Core stability Exercise

Core stability Exercise affects the activity of the muscles in the abdominal area so as to create stability. Core exercise activities are influenced by the superficial (global) muscles and deep (core) muscles. Superficial (global) muscles and deep (core) muscles are primarily responsible for maintaining posture. The global muscles, which are multi-segmented, are a large connection that responds to external loads imposed on the trunk that shift the body's center of mass (Wirth et al., 2017). (The muscles in the core provide the torque or force needed to make movement, control movement, or to prevent movement from occurring. Apart from the abdominal muscles, several other muscles are considered core muscles and provide stability to rigidity and dynamic movement function. The point is No major core muscles fulfill the function of both immobile and motionless postures, but all core muscles play a major role in every body movement (Willardson, 2007).

NMT (Neuromuscular taping) is an application of a technique that uses elastic adhesive tape attached to the skin. It produces a local therapeutic effect and directly affects reflex pathways with good results. The use of NMT will provide an increase in the functional ability of muscles by stimulating nerve responses through biochemical, emotional and energy stimulation mechanism to achieve the desired result (Pillastrini et al., 2016).

RESEARCH METHODS

This study is a quasi-experimental study with a randomized control group pre test-post test design for the effectiveness of neuromuscular taping (NMT) and core stability exercises on increasing agility in cases of knee jumpers at PTPN V Pekanbaru Soccer School.

The research was taken from a comparison of values in the period before and after the intervention. Prior to being given a specific physiotherapy examination intervention by palpating the patella tendon and using Agility measurements with Agility Test Illionis. A total sample of 12 people with a dose of 3 times a week for 5 weeks. Ethics in this study pays attention to informed consent and participant consent is obtained before testing or before intervention, and the confidentiality of the respondents is maintained, and the safety of the respondents.

Place and time of this research was carried out at PTPN V Pekanbaru Soccer School and when the research was carried out August 18 – September 30, 2022.

RESULT

Description of Research Data

The results of the description of the characteristics of the research subjects in the following table.

Table 1: Characteristics of Research Subjects

Characteristics n:12	Mean$\pm$SD	Min;Max	P
Age	15.42$\pm$ 0.669	(14 : 16)	0.004

Weight	55.75± 6.077	(42 : 62)	0.029
Height	169.75± 3.519	(161: 74)	0.057
BMI	19.19± 1.776	(15 : 21)	0.065

Based on table 1: Shows the characteristics of the study group with a sample size (n = 12) in one group with core stability exercise intervention, it was found that the average age was 15.42± 0.669, with a minimum age of 14 years and a maximum age of 16 years with a P value> 0.004, so P<0.05, average body weight. 55.75± 6.077 with a minimum body weight of 42 kg and a maximum body weight of 62 kg with a P value> 0.029 then P <0.05, average height 169.75± 3.519 with a minimum body height of 161 cm and Maximum body weight is 174 cm with a P value <0.057, so P> 0.05 and the average body mass index (BMI) is 19.19± 1.776 with a minimum BMI of 15 and a maximum body weight of 21 with a P value <0.065, so P> 0.05.

Data Normality Test

Table 2: Normality test

Uji Normalitas Shapiro Wilk Test

Variable	Rerata±SB	P
N=12		
Agility Illionis Test before NMT dan Core Stability Exercise intervension	21.33±1.403	0.857
Agility Illionis Test after NMT dan Core Stability Exercise intervension	14.70±0.815	0.010

Table II: explains the results of the Normality test based on the Shapiro Wilk test on all pre-test and post-test variables in the data group is p> 0.05, so the data is concluded to be normally distributed.
 Hypothesis test of the effectiveness of the application of Neuromuscular Taping and Core Stability Exercise to increase agility to jumpers knee conditions in soccer school students.

Table 3: Hypothesis Test

Variable N=12	Mean±SD	P

Agility Illionis test before and after NMT and Core Stability Exercise intervension	6.631±1.037	0.000

Table III: explains the effect before and after the intervention in the treatment group with a significant value P = 0.000 (P <05) with a mean value before the intervention of 21.33 ± 1.403 and a mean value after the intervention of 14.70 ± 0.815. This means that the application of Neuromuscular Taping and Core Stability Exercise interventions to increase agility with jumpers knee conditions in soccer school students with a mean hypothesis of 6.631 ± 1.037. This was explained in research (Sever & Zorba, 2018) that core stability is the stabilization of the center of the body against dynamic movements that occur in the limbs and core muscles. The process of providing core stability exercise interventions involves components of the biomechanics, motor, sensory, and central nervous system which are the center of the kinetic chain in sports activities that can increase core muscle strength, balance and maximize movement control of the upper and lower extremities. Thus the athlete's motor skills such as strength, endurance, coordination, agility, speed, balance in motion such as running, jumping, hitting, spinning and throwing can be expected to develop through increased core strength and NMT stability. Poor core stability will cause the agonist muscles to work harder so they try to compensate for the deficiency. This causes a functional power deficit (Boz, 2020).

Additional interventions for neuromuscular taping. The NMT used in research is carried out by physiotherapists who have received special training by certified and experienced instructors. The NMT that is applied to the knee joint is an elastic band with the kinesiotaping brand with shape I 25 cm long and 5 cm wide which is affixed to the medial and lateral patella with the tension level of the tape being pulled 50% from 0% tension so that compression occurs in the area. Kinesiological tape is a water-resistant elastic band that can stretch up to 120-140%. of its original length and can stick to the skin for 3-5 days with very little irritation to the skin (Marcolin et al., n.d.).

Application of neuromuscular taping to the knee with compression techniques in jumpers knee neuromuscular taping and core stability exercises can reduce the occurrence of pressure on mechanoreceptors under the skin, provide a positive effect on reducing pain in the short term by increasing blood and lymphatic circulation, improving joint position, increasing muscle activation, increasing flexibility and coordination. able to increase knee stability and joint proprioceptive so as to be able to correct position when motion errors occur and improve dynamic balance With NMT the confidence level of athletes is higher thereby improving performance (Tekin et al., 2018).

Conclusion

The research with the title EFFECTIVENESS OF NEUROMUSCULAR TAPING APPLICATIONS AND CORE STTBILITY EXERCISE TO IMPROVE AGILITY WITH JUMPERS KNEE CONDITIONS IN AT PTPN 5 PEKANBARU SOCCER SCHOOL STUDENT. Based on the results of this study, it was concluded that there was an effect of the intervention given to increase agility as measured by the agility illionis test. It can be seen from the analysis of the hypothesis data in the treatment group with a mean value of 6,631 ± 1,037 with a significant value p = 0.000 (p <0.05).

Suggestion

For the next researcher, it is better if the research is carried out in the room, not in the field, so that the research can still be carried out even though the bad weather

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Angular Cheilitis with Anemia as A Predisposing Factor: A Case Report

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Abstract

introduction: Angular cheilitis is a lesion in the corner of the lips caused by many factors, including nutritional deficiencies and systemic diseases. Angular cheilitis can be caused not only by trauma but also by systemic conditions such as anemia. The treatment of angular cheilitis depends on its causes.

Purpose: The treatment of angular cheilitis depends on its causes. *Purpose*: This article aims to describe angular cheilitis lesions and therapy.

Case report: A 17-year-old female patient came to Rumah Sakit Gigi dan Mulut (RSGM) Soelastri, Faculty of Dentistry, Universitas Muhammadiyah Surakarta, complaining of pain in the corners of her lips. The complaints were felt approximately one month ago. Lately, she often underwent dental treatments that made her open her mouth widely for too long. The patient has no habit of licking the corners of her lips but rarely eats vegetables and fruits. The patient often feels stressed due to heavy college burdens. An intraoral examination showed ulcerated lesions in the form of fissures with a reddish color located at the right and left (bilateral) corners of the lips, soft in consistency, and painful. The patient underwent a complete blood test and found that the MCV, MCH, and MCHC values decreased. The diagnosis of this case is angular cheilitis which is triggered by trauma and is predisposed by hypochromic microcytic anemia and stress.

conclusion: angular cheilitis can be treated by administering topical corticosteroid medications to reduce inflammation and educating the patient to eliminate predisposing factors, such as increasing iron intake and managing stress. The lesion completely healed after two weeks post-examination.

Introduction Section

The oral cavity is one of the essential organs for humans. This organ is a functional unit consisting of teeth, tongue, cheeks, gingiva, and saliva that are interdependent in carrying out their functions, namely mastication, speaking, and aesthetics (Setiadhi & Wihardja, 2019). The oral cavity is composed of soft tissues and hard tissues. The soft tissues in the oral cavity are labial mucosa, buccal mucosa, palate, gingiva, frenulum, and tongue (Setiadhi & Wihardja, 2019), while the hard tissues are teeth consisting of enamel, dentin, and cementum (Nasution, 2016) and alveolar bones (Nurniza et al., 2021).

The health of the oral cavity is significant to maintain so that its function can run properly. The soft tissues in the oral cavity line the entire surface of the bone and form walls that play a role in *defense*, mastication, swallowing, and speech (Hamdani et al., 2022). The condition of the soft tissues of the oral cavity is closely related to the systemic condition of the body. The oral cavity can display manifestations of systemic conditions and be an indicator of the body's overall health (Wight, 2017). These systemic conditions include autoimmune diseases, hematology, endocrine, or neoplastic changes. In addition, certain medications can also have an impact on the condition of the oral cavity (Kane, 2017).

Changes in systemic conditions can affect changes in the integrity of soft tissues in the oral cavity, one of which is characterized by the appearance of lesions such as angular cheilitis (Marinna & Yusri, 2022; Nurniza et al., 2021; Urse, 2014). Angular cheilitis is a lesion of the corners of the lips caused by many factors, including nutritional deficiencies and systemic diseases (Fajriani, 2017; Pandarathodiyil et al., 2021). Nutritional deficiencies, especially red blood cell-forming components such as vitamin B12, iron, and folic acid, can inhibit the regeneration process of epithelial cells of the oral cavity and increase the risk of ulceration. All systemic

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conditions that cause a decrease in the immune system (immunosuppressants) are at risk of causing lesions in the oral cavity (Díaz Rodríguez et al., 2022). Stressful conditions are also reported to lower a person's immunity and increase susceptibility to infection (Larasati, 2016; Mayasari & Pratiwi, 2009), including on the oral mucosa.

Case Report

The female patient, aged 17 years old, came to the Soelastri Dental and Oral Hospital (RSGM), Faculty of Dentistry, Muhammadiyah University of Surakarta. After screening which shows that the patient has no symptoms of fever, cold, or cough and has normal vital signs, the patient was then examined by the dentist. The patient complained of pain in the corners of the right and left lips. The complaint was felt by the patient approximately one month ago. She said that recently she often underwent dental treatment, which made her open her mouth widely for too long. The patient said the corners of her lips are sore, dry, and chapped. Complaints get worse when the patient eats hot and spicy food and feels more comfortable when eating cold food. The patient has never treated such complaints before. The patient claimed not to have any allergies to any drugs, food, or weather.

The anamnesis results also showed that the patient usually brushed her teeth twice daily after breakfast and before bed. The patient was not changing their toothpaste products to new brands and did not change her lip or face products with a new brand. The patient likes to eat sweet foods and chew ice cubes. The patient did not have the habit of licking the corners of her lips, but she admitted that she rarely ate vegetables and fruits and did not consume any vitamins or supplements. The patient explained that recently she often feels stressed and depressed due to the heavy college burden.

In the intraoral examination, it is found that there are ulcerated lesions in the form of fissures with a reddish color accompanied by peeling skin around them. These lesions located in the right and left (bilateral) corners of the lips are soft in consistency and also painful. The patient does not use dentures or orthodontic appliances, and no teeth are restored with certain materials. The clinical condition of the lesion can be seen in Figure 1.

Figure 1 clinical appearance of angular cheilitis lesions in the patient

Supporting examinations

In this case, the patient has carried out a supporting examination, *a complete blood count (CBC)*, to determine the presence of systemic hematological factors against the appearance of angular cheilitis lesions in the oral cavity. This examination was chosen because the results of the patient's anamnesis and intraoral examination did not show any etiology, such as allergies, the use of orthodontic appliances, or a decrease in vertical dimensions. So a complete blood test was chosen to determine the presence of hematological factors that might

play a role in the appearance of angular cheilitis lesions suffered by the patient. The results of the patient's complete blood count can be seen in Table 1 below:

Table1. Results of the patient's complete blood test

Examination	Result	Reference Value	Unit
HAEMATOLOGY			
1. ROUTINE BLOOD			
WBC	6.7	4.0 – 10.0	$10^3/mm^3$
RBC	4.8	3.8 – 5.8	$10^6/mm^3$
Hb	8.4*	11.0 – 16.0	g/dl
Hct	28.6*	35 – 50	%
Plt	450	150 – 450	$10^3/mm^3$
MCV	57*	80 – 97	μm^3
MCH	15*	26.5 – 33.5	Pg
MCHC	26*	31 – 35	g/dl
RDW	16*	10 – 15	%
Lym	34	17 – 48	%
Mxd	5	4 – 11	%
Neu	61	43 – 76	%

The results of the patient's complete blood examination above show that the patient's hemoglobin (Hb) level is below normal values. This indicates that the patient has anemia. Anemia is a condition where the amount of hemoglobin is less than average and is usually influenced by age, sex, and geographical location (Henrika et al., 2018). Hemoglobin is a complex molecule in red blood cells that transports oxygen from the lungs to all body tissues (Marinna & Yusri, 2022). This oxygen will be used by all cells in the body to live and carry out their functions. If Hb levels decrease, as in anemic conditions, tissue oxygenation will decrease and reduce mucosal resistance, so it is prone to damage.

Another indicator is the MCV (Mean Corpuscular Volume) of the patient below the normal limit, which means there is a microcytic anemia condition. The MCH (Mean Corpuscular Hemoglobin) and MCHC (Mean Corpuscular Hemoglobin Concentration) values are also below the normal limit indicating the patient has hypochromic anemia. Mean Corpuscular Volume (MCV), Mean Corpuscular Hemoglobin (MCH), and Mean Corpuscular Hemoglobin Concentration (MCHC) are indicators of the blood test results first introduced by Wintrobe in 1929 (GREEN, 1950)(GREEN, 1950). These three indicators are of great importance in determining the etiology of the anemia suffered by the patient. MCV is an indicator that shows the size or volume of red blood cells (erythrocytes).

A low MCV value in anemic patients means an iron deficiency called microcytic anemia. In contrast, an increase in MCV value means that there is a deficiency of vitamin B12 or folic acid, which is also called macrocytic anemia. MCH values indicate each red blood cell's average hemoglobin (Hb) weight. The high and low MCH will affect the color quantity of red blood cells, referred to as normochromic if the value is normal, hypochromic if the value is low, and hyperchromic if the value is too high. MCHC is an indicator to measure the average hemoglobin concentration in each red blood cell. A decrease in MCHC values means that there are iron deficiency conditions, microcytic anemia, and hypochromic anemia, while an increase in MCHC indicates the possibility of spherocytosis or hemolytic anemia due to molecular defects (Erwana, 2022; Sari & Ismail, 2016).

Case management

This subjective, objective, and supporting examinations conclude that the patient has angular cheilitis triggered by trauma and is predisposed by hypochromic microcytic anemia due to iron and vitamin B12 deficiency. This conclusion is in line with (Echarisma et al., 2021) that nutritional deficiencies can make patients susceptible to infection, where an infection that often occurs in the oral cavity is angular cheilitis.

The case management of angular cheilitis can be given topical corticosteroid medication to be applied to the lesions as anti-inflammatory, immunosuppressive, and mechanical protection, or mouthwash containing analgesics such as benzidamine to reduce pain (Marinna & Yusri, 2022). In this case, the patient refuses

medication, so case management emphasizes more on education. The patient was educated to increase the consumption of iron (Fe) sources such as vegetables, fruit, nuts, meat, or fish. It aims to increase the intake of iron which plays a role in erythropoiesis or the formation of red blood cells (Hidayati et al., 2017; Mardhani & Widiyaningsih, 2022) and increase the regeneration of epithelial cells as *a barrier*, including in the oral mucosa. The patient was also educated to relax and regulate stress because stress can lower cellular immunity and increase susceptibility to microbial infections (Mayasari & Pratiwi, 2009).

The patient was recalled approximately two weeks later. She said the pain had disappeared, and the corners of the lips were no longer rough and chapped. The patient admitted that she had increased vegetable consumption over the past two weeks. On intraoral examination, it was seen that the lesion had healed completely, and there were no signs of inflammation.

Discussion

Definition and description of the lesion

Angular cheilitis is an inflammatory lesion in the corner of the lips, precisely on the border of the muco-cutaneus, and can extend to the skin around the mouth (Pandarathodiyil et al., 2021) According to Soeprapto, (2017), angular cheilitis is a loss *of integrity* lesion, which is an ulcer. An ulcer is a lesion that histologically appears as the loss of the epithelial layer from the stratum corneum, stratum granulosum, stratum spinosum, to stratum basalis. Angular cheilitis lesion appears due to the body's inability to compensate for tissue damage due to infection with pathogenic microorganisms (Azizah et al., 2021). Clinically these lesions appear as ulcerated lesions, accompanied by fissures or crusts. Lesions can appear on one (unilateral) or two (bilateral) sides. Angular cheilitis can occur at any age, both men and women (Fajriani, 2017). In this case report, the lesion appeared as ulcerated lesions in fissures with a reddish color accompanied by peeling skin around them and pain. Lesions appear bilaterally in both corners of the lips.

Definition and description of the lesion

Fajriani, (2017) in his study explained that angular cheilitis could occur due to Candida albicans infection, trauma to the oral cavity, decreased nutrition, systemic diseases, and viral infections. According to Pandarathodiyil et al. (2021) in their study, the etiology of angular cheilitis can be distinguished into local and systemic etiologies as described in Table 2 below.

Etiology

Fajriani, (2017) in his study explained that angular cheilitis could occur due to Candida albicans infection, trauma to the oral cavity, decreased nutrition, systemic diseases, and viral infections. According to Pandarathodiyil et al. (2021) in their study, the etiology of angular cheilitis can be distinguished into local and systemic etiologies as described in Table 2 below.

Table2. Etiology of angular cheilitis

Local etiology	Example
Physical and anatomical factors	Reduced vertical dimensions of the jaw so that the corners of the lips are more often flooded with salivary fluid and become a place that supports microbial growth, prone to ulceration and infection.
Allergy factors	Allergy to nickel-containing materials such as braces, metal dentures, and retainers. Allergy to the ingredients contained in lipstick or other cosmetic products. Allergies to other products, such as toothpaste and chewing gum, can aggravate previously existing lesions because allergens will more easily penetrate the lesion.
Microbial infection factors	The condition of salivary flooded lip corners increases susceptibility to the overgrowth of microbes such as Candida albicans and Staphylococcus aureus.

Systemic etiology	Example
Nutritional factors	- Iron deficiency (Fe) Iron deficiency in the blood plasma causes the synthesis of cytochrome oxidase, catalase, and peroxidase enzymes to be disturbed. It causes inhibition in cell proliferation and *turnover*, including in the oral cavity's epithelial cells, so the epithelium becomes atrophied and more susceptible to ulceration and microbial infections. In addition, in anemia due to iron deficiency, there is a decrease in the amount of transferrin protein which acts as a fungistatic, so that fungal growth becomes excessive and causes infections such as angular cheilitis (Echarisma et al., 2021). - Vitamin B complex deficiency Vitamin B complex consisting of B2, B6, B3, B12, B9, and BW is a type of water-soluble vitamin that plays a role in cell metabolism. Vitamin B2 and B6 deficiency can manifest as angular cheilitis lesions, glossitis, sore throat, and swelling and erythema in the mucosa. Vitamin B12 (folic acid) is one of the essential components in forming red blood cells (erythropoiesis), so the lack of this vitamin can reduce the production of red blood cells so that anemia occurs. Anemia makes the mucosal barrier of the oral cavity weaken, and it is easy for angular cheilitis lesions to occur (Echarisma et al., 2021; Marinna & Yusri, 2022). - Eating disorders (anorexia, bulimia) Anorexia nervosa and bulimia nervosa are eating disorders that commonly appear in adolescents (Al Vianita et al., 2020). Anorexia is an excessive fear of weight gain, and bulimia is a state of a person overeating and then regurgitating (Dwintasari, 2018). (Dwintasari, 2018) Malnutrition conditions due to dietary disorders can also cause the appearance of lesions.
Systemic disease factors	Systemic conditions such as xerostomia or dry mouth caused by impaired salivary gland function, head-neck radiation therapy, chemotherapy, diabetes mellitus, or autoimmune diseases can cause the appearance of angular cheilitis lesions. Disturbances in salivary flow can cause dry mouth conditions and abnormalities in the oral cavity (Riolina et al., 2021). Xerostomia can also be caused by pharmacological agents such as antihistamine drugs, antidepressants, and antihypertensives. Systemic infection with the COVID-19 virus can also decrease immunity and increase the susceptibility of the oral mucosa to the appearance of lesions such as angular cheilitis. Díaz Rodríguez et al. (2022) report that one of the manifestations of the oral cavity present in COVID-19 patients is lesions of the tongue, palate, and commissure of the lips accompanied by angular cheilitis lesions. Riad et al. (2022) also reported manifestations of angular cheilitis lesions in 17 confirmed positive patients for COVID-19.

Psychological factors	Example
Stress factors	Stress is a state of anxiety about the demands faced by one (Larasati, 2016; Putri, 2021). The stress condition will trigger activation of the hypothalamic-pituitary-adrenal (HPA) axis to release the corticotropin-releasing hormone (CRH). The release of this hormone stimulates the secretion of the adrenocorticotropin hormone (ACTH) from the pituitary gland. ACTH will enter the bloodstream and go to the adrenal glands, then trigger the secretion of stress hormones, namely glucocorticoids and catecholamines. Both types of stress hormones act to provide a *fight-or-flight* response. Glucocorticoids increase the amount of energy substrate in different body parts to deal with environmental demands. Nevertheless, the activation of the HPA axis can suppress immune function, so there is an increased risk of infection.

In this case, anamnesis or subjective examination has been carried out on the patient where the patient says he is in a state of stress due to the heavy study load, as well as the condition of the patient who lives alone, which causes her not to have a balanced nutrition diet, the patient admits that she rarely consumes iron source foods such as vegetables, fruits, nuts, meat, and fish. Supporting examinations in the form of *complete blood counts (CBC)* showed a decrease in MCV, MCH, and MCHC values which showed that the patient had hypochromic microcytic anemia.

According to Erwana, (2022) in his book, the decrease in MCV values occurs in patients with iron deficiency anemia, pernicious anemia, and thalassemia. This condition is called microcytic anemia. In addition, MCH and MCHC values reduce in patients with iron deficiency conditions, microcytic anemia, anemia due to pyridoxine,

and thalassemia. This condition is called hypochromic anemia. This is in line with the subjective examination of the patient in this case, that the patient rarely consumes iron-source foods such as vegetables. So based on the above findings, it is concluded that the patient has hypochromic microcytic anemia.

Management of angular cheilitis lesions

The management of angular cheilitis lesions depends on the causes and clinical appearance of the lesions(Pandarathodiyil et al., 2021). If a decrease in vertical dimensions causes the lesions, fixing the condition such as using dentures is necessary. Patients who have the habit of licking the corners of their lips should be educated to avoid this habit. If an allergy to dental care products or cosmetics used by the patient is suspected, the use should be stopped and replaced with other products. Suppose the lesion is presumed to be due to allergies to metal materials contained in orthodontic devices or dental restoration materials. Replacing them with materials free of allergens, such as stainless steel, titanium, or ceramic, can be considered.

Anti-fungal medicine can be given if the lesion is suspected to arise due to the formation of an environment that supports the growth of Candida albicans microorganisms as the cause of lesions (Soeprapto, 2017), such as topical medicine nystatin, amphotericin B, ketoconazole, or miconazole nitrate. Topical corticosteroids can also be given as an anti-inflammatory, reduce pain in lesions, and increase mucosal re-epithelialization, i.e., triamcinolone acetonide 0.1% (Marinna & Yusri, 2022). In addition, it is imperative to maintain immunity and body health so that it is not susceptible to disease, as well as increase the intake of nutritious foods needed by the body (Fajriani, 2017; Soeprapto, 2017). Another study conducted by Azizah et al. (2021) stated that the first line of management of angular cheilitis lesions is with anti-fungal medicine accompanied by eliminating predisposing factors.

In this case, the patient refused to be given topical corticosteroid medication, so the treatment was emphasized more on education to increase the intake of iron-containing foods such as vegetables, fruit, nuts, meat, and fish. This education is based on the patient's complete blood examination results, which indicate that the patient has hypochromic microcytic anemia. Iron intake is expected to increase erythropoiesis so that the process of regeneration and re-epithelialization of the oral cavity mucosa goes well and accelerates the healing of lesions. The patient was also educated on improving stress management. Two weeks later, the patient said he had followed recommendations to increase iron intake, eat nutritious foods, and reduce stress. The complaints of pain in the corners of the lips have disappeared, and clinically it appears that the lesions have healed completely.

In this post-pandemic condition, everyone began to rise and move much more actively than three years ago before the pandemic. The latest data reported by the Google *COVID-19 Community Mobility Report* in 2022 shows that human mobility, especially in Indonesia, has increased by 20% in workplaces, increased by 23% in shopping areas, and increased by 29% to open environments such as parks and beaches (Google, 2022). Increased activity that is not accompanied by a healthy lifestyle and adequate rest can decrease the body's health and immunity (Amalia et al., 2020). This angular cheilitis lesion is just one of the many lesions in the oral cavity that systemic conditions can induce, one of which is decreased cellular immunity. Oral cavity lesions are often only considered as the result of local factors. However, the appearance of these lesions could become a sign of the lifestyle and nutritional intake that has been lived, as well as a reminder that we need to maintain the body's immunity by increasing nutritional intake and minimizing stress.

Conclusion

Angular cheilitis is a lesion in the corners of the lips caused by many factors, including systemic conditions. In this case, the patient has hypochromic microcytic anemia characterized by a decrease in MCV, MCH, and MCHC values on a complete blood test. This decrease in the volume and concentration of hemoglobin in erythrocytes can be caused by iron deficiency, which impacts the susceptibility of ulcerated oral mucose and microbial infections. Other conditions, such as stress and systemic diseases, can also lower immunity and increase mucosal susceptibility to infection. The above findings lead the authors to conclude that the patient has angular cheilitis

triggered by trauma and is predisposed by systemic conditions in the form of hypochromic microcytic anemia and stress. Treatment emphasizes more on education to improve iron source diet intake and stress management.

Acknowledgement

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Husband's Support for Postpartum Mothers (Study of The Mother with Vaginal Birth and Section Caesarea)

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Abstract

Purpose: This study aims to determine the picture of husband support for postpartum mothers with vaginal birth and sectio caesarea..

Methodology: This research is quantitative research with a Cross-Sectional approach. The sample of this study is postpartum mothers in the Kartasura Health Center work area in 2022. Purposive sampling with a total sample of 54 postpartum mothers. Data collection used the postpartum social support questionnaire (PSSQ) and analyzed using the Independent T-test.

Results: The results of the analysis in this study showed the characteristics of respondents aged 20-41 years, with an average baby born at 39 weeks gestation, high school education as many as 30 respondents (56%), mothers who lived with their husbands as many as 49 respondents (90.7%), did not experience complications of childbirth (88.9%), most multipara mothers were 38 respondents (70.4%). In this study, a statistical value of p = 0.952 was obtained. The sig value (p)>(0.05) means that there is no difference in husband support in mothers who give birth in the normal way and husband support in mothers who give birth in secio caesarea ways.

Applications/Originality/Value: The difference between this research and pre-existing research lies in the research respondents, the time of the study, measuring instruments, the literature used, the theory used and the results of the research.

Introduction Section

After childbirth, the postpartum period is a crucial moment in the life of the mother. Because of the multiple problems that postpartum mothers experience, the postpartum period becomes a crucial period (Nisak & Rahayuningsih, 2018). Many maternal deaths occur due to late assistance or simple first aid provided inadequately because the husband does not understand the problems during pregnancy and childbirth; childbirth readiness is an essential process in birth planning and anticipation of actions to prevent maternal complications(Durmazoğlu et al., 2021). The world-scale maternal mortality rate based on World Health Organization (WHO) research in 2017 still shows a high number with a total of 289,000 people. In Southeast Asia, Indonesia is ranked first with the number of maternal deaths reaching 190/100,000 live birth rates, followed by Vietnam with 49/100,000 live birth rates, Malaysia with 29/100,000 live birth rates, Brunei Darussalam with 27/100,000 live birth rates, and Thailand with 26/100,000 live births, and Thailand with 26/100,000 live births(World Health Organization, 2020).

Most of expectant mothers view childbirth as a complicated process that may be accompanied by anxiety and worries. (Mortazavi & Mehrabadi, 2021). Giving birth by sectio caesarea is scary because it can cause death (Chen & Tan, 2019). Sectio caesarea mothers have long-term and short-term risks after giving birth will affect their quality of life. Especially mothers who are giving birth for the first time because they need a lot of information and help in this period. Factors that affect childbirth readiness in pregnant women are age, parity, education, family support and husband support.

The type of delivery according to the mode of delivery is based on two categories, namely vaginal birth and caesarean section. The method of delivery is the method chosen by the mother during giving birth or by the health worker who handles it. There are two possibilities that the mother will give birth normally: if she is happy with her husband's assistance and if she is happy with her pregnancy. This suggests that women who experience trouble-free pregnancies and mothers who get their husbands' support during the pregnancy are more likely to deliver their babies normally. A protective factor against pervaginal labor is satisfaction with

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marital or sexual activity(Mortazavi & Mehrabadi, 2021). In many nations, the rise in caesarean deliveries has raised social issues. Originally intended to address issues related to challenging childbirth, cesarean sections are today used without restriction(Chen & Tan, 2019) There is a widespread misconception that vaginal birth might impact sexual enjoyment or function. Women who are content with their marital or sexual relationship are more likely to deliver by cesarean section. According to the most recent findings of qualitative research conducted in Iran, the husband's concerns about sexual function as well as the fear of permanent harm to the urogenital organs and sexual function are factors in requests for cesarean sections(Mortazavi & Mehrabadi, 2021).

In general, women in the puerperium require assistance from others around them to fulfill their new responsibilities as parents and to care for themselves while they adjust to the puerperium and attempt to regain their pre-pregnancy state. Birth and pregnancy are periods of developmental crises. During this time, stress levels may increase. Social support can come from a variety of people, including partners, families, friends, coworkers, healthcare professionals, and neighbors. Husband support is a crucial element since it helps puerperal mothers feel more confident and self-assured. (Winarni et al., 2018).

Social support is the conviction that one's social network will offer resources, such as genuine knowledge and emotional support, when needed(Hijazi et al., 2021). Women require the family's support to adjust throughout the early stages of becoming parents. (Rahayuningsih & S, 2018). Postpartum depression may develop as a result of a lack of social support (Yu et al., 2021). Social support during the postpartum period includes both emotional and instrumental help. Emotional support includes empathy, love, care, and trust in caring for the baby, as well as support for oneself and personal issues(Rahayuningsih et al., 2015). Husband support is the aid provided by the husband to his wife. It can take the form of physical support, such as meeting the wife's requirements and assisting her in completing a task or difficulty, or psychological support, such as providing his wife with encouragement, praise, and support. The husband's support can also be demonstrated in other ways, such as by soothing the wife, providing touch, or using words that inspire the wife. (Puspitasari, 2020)

Based on the description provided above, researchers are interested in studying how husband support varies depending on the style of vaginal delivery and if the mother had a secio caesarean section. The test of this study is to find out whether there is a difference in husband support in mothers who give birth by pervagina and husband support in mothers who give birth by secio caesarea.

Method

Responden

This research was conducted in the working area of the Kartasura Health Center, Sukoharjo regency. The population of this study was puerperal mothers in the Kartasura Health Center work area who met the inclusion criteria and were willing to be respondents. Purposive sampling with a total sample of 54 puerperal mothers.

Method

This research is quantitative descriptive research with a Cross Section approach. The instrument in this study used a modified postpartum social support questionnaire (PSSQ) from Miller et al and Hopkins & Campbell that had been modified. A modified version of Miller et al's and Hopkins & Campbell's social support questionnaires was translated into Indonesian which was further tested on a group of postpartum mothers of the Kartasura region to ensure understanding, to measure husbandly support in puerperal mothers. The variables used in this study are independent variables. What will be studied is a picture of husband support in normal childbirth mothers and SC which is assessed from the postpartum social support questionnaire (PSSQ) with a total of ten questions. The ten questions have 5 scales which are scale 1: never, 2: Rare, 3: Sometimes, 4: Often, 5:Always. The independent variables studied were the support of the husband by means of normal childbirth and sectio caesarea and maternal characteristics. Maternal characteristics include Age, week of pregnancy, education, cohabitation, type of work, pregnancy complications and parity.

Ethical Considerations

The study was conducted with the approval of the Regional General Hospital (RSUD) Dr. Moewardi (1,273/X/HREC/2022). This research guarantees the anonymity and confidentiality of participants, no names or personally identifiable information written on questionnaires or demographic forms. Participation in this study was voluntary, and participation was the consent of the respondents. All participants have the right to voluntarily participate in the study without adverse consequences and to receive a full description of the nature of the study. Participants are convinced that they have the right to withdraw from the research at any time without questioning.

Static Analysis

The obtained data is entered into an Excel spreadsheet and then exported to an SPSS spreadsheet for data calculations. Furthermore, a normality test and homogeneity test are carried out to find out whether the data distribution is normal or not and to find out whether the data studied have the same characteristics or not. Normality and homogeneity tests are carried out as a condition for conducting an Independent T-test. After testing normality and homogeneity, the results were obtained that the data were distributed normally and the data had the same characteristics. Furthermore, the authors conducted an Independent T-test between husband support data on mothers who gave birth normally and husbands' support in mothers who gave birth by caesarea.

Result

Table 1 Age distribution and week of pregnancy of respondents

No	Variable	Mean Median	SD	SE	Min – Mak
1.	Age	29.04 28.50	5,359	0,729	20 – 41
2.	Baby born in week	39,00 39,00	1,229	0,167	36 – 42

Table 1 The results of the analysis obtained the average age of the mother was 29.04 years, the median was 28.50 years with a standard deviation of 5.359 years and a standard error of 0.729. The youngest age of the mother is 20 years and the oldest age is 41 years. Then for the results of the analysis of the week of maternal pregnancy, the average baby was born at 39.00 weeks of gestation, the median baby was born at the age of 39.00 weeks with a standard deviation of 1.229 weeks. The smallest birth week is 36 weeks and the largest gestation week is 42 weeks.

Table 2 Distribution of Respondent Characteristics Percentage

Variable	Frequency (n=54)	Presentase (%)
Education		
Bachelors	19	35
Senior High School	30	56
Junior High School	5	9
Living With		
Original Family	5	9,3
Husband	49	90,7
Employment		
Work	23	42,6
Doesn't Work	31	57,4
Complications		
Yes	6	11,1

No	48	88,9
Parity		
Primipara	16	29,6
Multipara	38	70,4

Table 2 Based on the table above, it can be seen that most mothers have a high school education with 30 respondents (56%) followed by universities with 19 respondents (35%) and a small number of mothers with junior high school education with 5 respondents (9%). Most mothers live with their husbands, namely 49 respondents (90.7%) and a small percentage of mothers live with their original families with 5 respondents (9.3%). Most of the mothers did not work or became housewives, namely 31 respondents (57.4%) and a small percentage of working mothers with 23 respondents (42.6%). Most mothers had no complications while pregnant (88.9%) a small percentage of mothers experienced complications while pregnant (11.1%). Most of the multipara mothers were 38 respondents (70.4%) a small percentage of primiparous mothers with a total of 16 respondents (29.6%).

Table 3 frequency distribution of pervagina and secio caesarea types of labor

Variabel	Frekuensi (n=54)	Persentase(%)
Vaginal Birth	27	50,0
Sectio Caesarea	27	50,0

Table 3 From the table above shows 27 puerperal mothers giving birth normally with a percentage of 50%, and another 27 respondents giving birth by sectio caesarea with a percentage of 50%.

Table 4. Test for normality of husband support in mothers of pervagina and secio caesarea birth

Variable	p-Value	Information
Vaginal Birth	0,115	Normal
Sectio Caesarea	0,604	Normal

Table 4. In the table above, the results of the normality test with the shapiro-Wilk test found that the signification value of husband support in normal childbirth mothers is p=0.115. For the signification value of husband support in mothers giving birth to secio caesarea is p=0.604. Based on the data above, it can be concluded that the data is normally distributed with a sig value (p)>(0.05). In this study, a homogeneity test using the Levene' test method obtained a signification value of p = 0.168, based on the data above it can be concluded that the data has the same variance as the sig value of p>(0.05). so this study used the Independent T-test.

Table 5. Independent T-test Results

Variable	Mean	SD	SE	P Value	N
Vaginal Birth	39,89	3,598	0,693	0,952	27
Sectio Caesarea	39,81	5,270	1,014		27

In table 5. The results of the Independent T-test analysis obtained the average husband support in mothers who gave birth normally was 39.89 with a standard deviation of 3.598, while for mothers who gave birth to sectio caesarea the average husband support was 39.81 with a standard deviation of 5.270. From the average results of husband support, there was an average difference of 0.07 greater husband support for mothers who gave birth by pervagina. The results of the statistical test obtained a value of p = 0.952. The value of sig (p)>(0.05)

then from the data above there is no significant difference in the average husband support in mothers who give birth in a normal way and who give birth by sectio caesarea.

Discussion

Husband support is a type of communication that involves a genuine exchange of gifts and favors; as a result, it encourages people to show their spouses love and care (Hijazi et al., 2021). An external factor that may have an impact on moms' postpartum stress is their husbands' support. (Megasari & Rahayuningsih, 2018). The age characteristics of mothers are in the range of 20-41 years with the educational status of most mothers having a high school education, followed by college and a small percentage of mothers with a junior high school education. Based on research conducted by Durmazoglu et al, there is a signification difference between age and education with the support of the husband, namely the sig value p = < 0.05 was found that the younger age group and the level of high school education and below were less supportive of the mother in childbirth(Durmazoğlu et al., 2021). To give their children the best care possible, mothers' education levels are crucial. (Rahayuningsih et al., 2021).

In this study, the majority of mothers gave birth without any difficulties. Pregnancy and childbirth are most risk-free for women between the ages of 20 and 35. Women under 20 and women over 35 have a higher risk of difficulties during pregnancy and childbirth(Sulastri et al., 2019). The characteristics of the week of pregnancy in this study were that the average mother gave birth to a baby at 39 weeks gestation. The safe gestational age for the mother is 20-35 years. The vulnerable age for pregnancy is under 20 years old and over 35 years old(Rahayuningsih et al., 2021). Premature mothers experience more anxiety during the postpartum period and require more social assistance. (Shafie et al., 2018)

In this study, most mothers were multipara and most mothers lived with their husbands and did not work which allowed mothers to get support from their husbands, Primipara mothers needed more support than multipara mothers from environments such as husbands, parents/family, friends and health workers. In some studies primipara mothers have fear in facing the delivery period compared to multipara mothers (Mortazavi & Mehrabadi, 2021). In multipara mothers who give birth by pervagina because the birth canal has been passed by the baby, then stretching and opening are faster. In the lightening process, for example, the decrease in the presentation of the baby into the minor pelvis, in primiparous occurs before delivery, because the birth canal is still narrow, so the pain has been felt, while the sign of childbirth is not yet there. Ignorance of this condition has caused primipara confusion and stress(Yu et al., 2021). In terms of childbirth experience, primipara has never had the experience of giving birth, therefore primiparous mothers tend to experience postpartum depression higher than multipara mothers. The results of the 2021 Satrianegara study showed that around 50-60% of postpartum depression occurred in primipara. Therefore, primipara needs greater support than mothers who have had previous childbirth experience(Satrianegera et al., 2021).

The results of this study showed that there was no difference in husband support in mothers who gave birth to pervagina and husband support in mothers who gave birth by caesarea p=0.952 (p=>0.05), this is in accordance with research conducted in Turkey with a couple support score according to the type of delivery found that the average score of childbirth by cesarean section was 166.00 ± 8.73 and the average score for pervaginam delivery was 135.00 ± 11.20. However, when the MPQLQ score was examined, it was found that the difference between the mean scores of birth types was insignificant (p > 0.05)(Women, 2018). This can be because most of the respondents live with their husbands and husbands are the closest people who are responsible for providing a sense of comfort, security, a sense of respect, a sense of worth, a passion to complete pregnancy and childbirth well and full of happiness(Yu et al., 2021). Childbirth is a process of struggle between life and death for a woman so that a wife really needs support from various parties, especially the support of the husband. The existence of husband support can make it easier for mothers during the puerperium(Satrianegera et al., 2021).

Husband support is the factor most associated with postpartum blues events (Astri et al., 2020). For new mothers, social support is crucial since it can help prevent postpartum depression. (Shantanam & MUELLER, 2018). In this study there was a difference in the average support of husbands by giving birth to pervagina and

secio caesarea, the difference was very small, namely 0.07 greater the average in husband support in mothers who gave birth pervagina this is in accordance with the research of Mortazavi & Mehtazavi which stated that from the variables studied predicting normal birth is a form of satisfaction from husband support(Mortazavi & Mehrabadi, 2021). The health and happiness of the mother and child are greatly influenced by the husband or father (Ambarwati & Ihtiarini, 2019).

Based on research conducted by Mortazavi & Mehtazavi showed that there is no relationship between the way of birth and the support of the husband. This may be because the respondents consisted of women who planned to give birth by pervagina and give birth by secio caesarea. Women with a high fear will probably choose to do secio caesarea. pervaginam delivery, that is, satisfaction with the support of the husband and satisfaction with pregnancy. In puerperal mothers who get the support of their husbands since pregnancy are more likely to give birth normally. Satisfaction with marital/sexual intercourse is a protective factor for pervaginam labor(Mortazavi & Mehrabadi, 2021).

Conclusion

In puerperal mothers, husband support is an important component in the puerperium because with the support of the husband in the mother, it can increase self-esteem and self-confidence. In this study, it can be described that there is no difference between husband support in puerperal mothers by pervagina childbirth and sectio caesarea**.** This can be caused because the husband is the closest person who is responsible for providing a sense of comfort, security, a sense of respect, a sense of worth, a passion to complete pregnancy and childbirth well and full of happiness. And in this study, some respondents lived together with their husbands. The characteristics of the mother in this study can also affect the dukugan in the husband. The results of statistical tests in this study obtained the average husband support in mothers who gave birth normally was 39.89 while for mothers who gave birth to secio caesarea the average husband support was 39.81. From the average results of husband support, there was an average difference of 0.07 greater husband support for mothers who gave birth by pervagina.

Acknowledgement

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Counsellors' Approaches in Handling Online Counseling in The Midst of COVID-19

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Abstract

Purpose of this study is to explore the counsellors' online experiences during the COVID-19 pandemic that hit Brunei in August 2020 where all educators were forced to shift from physical to virtual meetings. Semi-structured interview was conducted with six counsellors from secondary government school in Brunei Darussalam who experienced online counseling during the medium transition period. From the interview, the data was transcribed and categorized the responses in different themes. Using thematic analysis, it was found that e-counseling is possible provided that counsellors are future ready, equipped with necessary skills, knowledgeable and skillful. In addition, experienced counsellors shared information on how to improve online counseling services as well as the challenges they encountered throughout carrying out the sessions online. This study could be beneficial to add as literature and useful for future researchers to conduct similar research based on this research topic.

Keywords: counsellor; online experiences; pandemic;

Introduction Section

COVID-19 is an unprecedented event and has major implications from all over the world emerging in the late 2019. In most parts of the world where lockdown was imposed, physical communication and meetings had turned to online mediums to keep pace. Brunei Darussalam was not exempted from the turn of events. One of the actions taken by Brunei's government was the school closure to limit face-to-face interaction. This change had affected instructors as well as counsellors who needed to ensure students' physical and mental well-being. According to recent studies conducted in the United States, the ongoing pandemic has had a long-term harmful impact on most students' mental health (Son et al., 2020). As a result, it is critical for counsellors to be able to use technology to develop a strategy or approach for providing counseling services, particularly one-on-one and group counseling sessions.

The main focus area in this research is to share their experiences during online counseling. This is important to discuss in this present time given they are currently experiencing e-learning and digital application as education tools. Furthermore, given the limited number of studies conducted on online education and counseling during COVID-19, it is necessary to establish a relevant reference for the purposes of this study.

The objectives of this research are to explore the counsellors' online experiences that can be used as a reference for future counsellors in the event of an unexpected event, such as a pandemic and to describe the counsellors' challenges from their experiences using e-counseling. Hence, in order to achieve the research objectives, the research questions are as follow ; how can counsellors' online experiences be used as a reference for future counsellors in the event of an unexpected event, such as a pandemic and what are the challenges from the counsellors' experiences using e-counseling.

Figures and tables

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counseling, by definition is a talking therapy, trained therapists, psychologists and counsellors listen to people who come to them seeking the counseling services and they help them find solutions in dealing with emotional issues (Supriyanto et al., 2020). The pandemic has instilled fear and anxiety, not just in Asia since its impact has been a global issue through loss of income thereby triggering mental health issues, therefore, there has been high demand for the counseling services hence the counsellors had to have new approaches of handling the increased demand. The goal of this literature review is to focus generally on the counsellor's approaches in handling services in the midst of COVID-19 in terms of their experiences, challenges and silver lining. COVID-19 is spreading worldwide, impacting enrolled students, educators, parents and the vulnerable individuals. Asian countries have taken measures to mitigate the spread of the pandemic but this has not stopped learners and educators from suffering. According to a study by Maloney and Taskin (2020), COVID-19 mitigation measures have led to slow economic activities hence the parents have reduced income. Apart from freezing the ability to fund learning, the government has issued measures that have led to closure of schools and the education institutions.

Ethics in online counseling also mean that one should practice informed consent, be open and realistic with their services, namely treatment goals, treatment expectations and a promising report on privacy policies (Cooper, 2019). Ability to explore and gain as much as they could for the client's information like the name and contact information to encourage them to share this information fearlessly. Finally, Cooper (2019) stated that it is ethical to let the clients know when or what time they are normally available and cater for the emergencies in their services. Counsellor's online platforms have helped by responding quickly to emergencies during the outbreak. Mielgo-Conde et al. (2021) records that the counsellor's platforms are one of the health technologies sectors and they have helped in providing online psychological services in countries across Asia during the pandemic. Southeast Asian healthcare platform BookDoc is yet another e-counseling platform which is offering virtual health advisory services in line with mental health teleconsultations. Several studies have been carried out to determine the technology utilized by counsellors to discuss and attend to students' problems. In the context of the COVID-19 outbreak, an increasing number of students at all levels have requested to see a counsellor because they have been experiencing a variety of problems that require immediate attention. According to Pragholapati, the main reason students attend counseling sessions is to talk about their problems with the counselors (2020). The study highlighted a number of issues, including mental health, disinformation, education, coping mechanisms, and health (Pragholapati, 2020). It demonstrates how important it is for a counsellor to pay attention to these issues. As a result, school counselors were compelled to act quickly to cater to this need. This allowed them to use technology like YouTube videos, short films, and WhatsApp, which were used by school counsellors in Indonesia, according to Ifdil et al. (2020). Moreover, Greenhalgh et al. (2020) discovered that consultation videos were considered as fitting to lighten students' concerns during COVID-19, especially those with heightened issues, whilst those who merely sought general counsel were managed using a website or phone calls. In contrast, a study by Ifdil, I (2020) have found a newly introduced strategy for online mental health services. For instance, the Mobile App Survey and online health use of social media.

Handling counseling sessions face the technological challenges of requiring the internet, a device and the application for the video meeting (Jena, P. K. 2020). Clients who are not versed well about this technology may find difficulties accessing the services. Counsellors also experience challenges trying to reach those especially in the rural areas but choose to have online sessions instead of in-person therapy. Studies by Mielgo-Conde et al. (2021) provide that clients could miss vital non-verbal cues when communicating with the counsellor and this is a challenge since the message will not be received as delivered by the counsellor. In addition, it is also pivotal to touch on what COVID-19 has brought silver linings to the area of education, the pandemic has taught educators including counsellors how to maximise the online platforms available to deliver a quality education, learning and skills. This is supported by Burns, M (2020) where she mentioned technology has become an educational lifeline ever since the pandemic, educators have advanced proficiency in expanding their technology use for better engagement and learning. Not only that, it also helps the counsellors to see that helping clients is possible with or without the need of physical interaction. Online counseling is as effective as face-to-face therapy, availability makes it more effective since one can access services from professionals that would otherwise be costly meeting them in person (Amos et al., 2020). Amos, P. M. et al. (2020) adds that online therapy removes barriers of physical limitations from accessing the services, people do not need to travel to an

office to get the guidance they need. It reduces stigma as some clients may not like to appear in public when seeking for guidance, it helps them access the counseling sessions in private and get the help. It is convenient as one can do it from the comfort of their home. Online counseling is affordable since the service fee is standardized for most platforms and it saves on the money that would have been spent travelling and booking appointments with face-to-face counsellors.

Counseling is vital as it aids psychological illnesses that result from stress. From the evidence in this literature review, it is clear that online counsellors have taken approaches to ensure that citizens are receiving the counseling sessions amidst the COVID-19 pandemic. The purpose of this research as a preparation for future counsellors supported with a study observed by Prahani, B. K. et al. (2020) that the impact of "new normal" in majority parts of the country including Brunei is a choice towards healing from the pandemic. Therefore, further planning, researching, evaluation, implementation and preparation are essential for learning and education. Hence, the results of this research are deemed to be valuable in the field of education. To conclude, this literature review has seen limitations in the study as they lack solid research on the pandemic as a silver lining, therefore, future research should look into this matter. This paper has reviewed the details pointing only the most important points hence it has not exhausted all the information as far as the subtopics are concerned, this is therefore, a wider area where further review can be done for extension of this review.

Methodology

The research is qualitative data where six participants were recruited via convenient sampling and interviewed as one on one basis. The inclusion criteria were the Government Secondary School Counsellors with experience of using technology to reach out clients in the midst of COVID-19. Participants were interviewed which was semi-structured, with a format structure to guide the research interviews with an open-ended question throughout the process. The interviews were recorded for the purpose of transcribing and reflecting what was being mentioned during the interview.

A pilot study was done in this research with two participants which allowed the researcher further improvement and amendments to the interview questions where necessary. The researcher used thematic analysis to analyse data which was transcribed and encrypted. Confidentiality was ensured as all the information gathered was protected and would only be accessible by the researcher. Also, the researcher used a coding system to name the participants. Lastly, the researcher received ethics approval letters from stakeholders prior to collecting the data. Reliability of the research was considered as in using a qualitative method, participants were able to express their true feelings about the questions, as opposed to only using writing methods, such as pen and paper, which is restrictive.

Moreover, the participants' responses were also rephrased in such a way that they were in agreement with what was being said. Validity of this research was also taken into consideration by reflecting on what they said and probed further. Interpretation was also used to decipher the hidden meaning from their responses, so that both parties' understandings were connected and understood correctly. Finally, after the researcher has finished transcribing, the researcher double-checks the consistency of the responses from the participants to ensure validity. The transcription, for example, is presented to the participants so that they can agree.

Findingas and Discussion

Table 1. Major themes generated from research questions

Research Questions	Themes
How can counsellors' online experiences be used as a reference for future counsellors in the	The use of e-counseling

event of an unexpected event, such as a pandemic ?	
What are the challenges from the counsellors' experiences using e-counseling ?	Challenges faced

Research Question 1 : How can counsellors' online experiences be used as a reference for future counsellors in the event of an unexpected event, such as a pandemic ?

The findings from this study suggest that counsellors must be prepared regardless of any situations. During COVID-19's initial wave in Brunei Darussalam, most participants were unprepared for online counseling. The structures and ethics of e-counseling in Brunei Darussalam were still unclear due to lack of guidelines from stakeholders. This is demonstrated when one counsellor admits they need to ask stakeholders for consent while other counsellors need to consult each other. Future counsellors should learn from this experience and be prepared with knowledge, information, and skills. The American Psychological Association (2020) has issued guidelines for practitioners, psychologists, and counsellors that use internet therapy. Competence, informed consent, secrecy, and boundaries are the three important principles in the COVID-19 ethical guidance that must be followed. Maintaining boundaries and getting the authorities involved are two of the many ethical considerations needed in e-counseling. From the results, the counsellors stated that they needed information from the Attorney General Chamber (AGC) and the Ministry of Education (MOE) to properly conduct online counseling. This should be taken into account by stakeholders in order to offer counsellors with clear and systematic ethics rules as mentioned in American Psychological Association (2020). It is critical to have informed consent in counseling, especially when dealing with clients' personal issues. From the study by Cooper (2019), a practice counsellor must get an informed consent from a client just like in traditional counseling. In the information consent, counsellor must be transparent in the ethics of counseling such as confidentiality. Moreover, Participant 3 stated that she aspires to learn more about internet platforms. Prior to the pandemic, they did not know or learn how to use technology until education changed to virtual environments. This serves as a reminder for future educators, especially counsellors to start learning them now without having to wait for unexpected circumstances to happen. As mentioned by the American Counseling Association (ACA), counsellors must utilise the use of electronic communication with full preparations in terms of information and equipment, particularly platforms used by the counsellors (Situmorang, 2020).

In terms of platform used, all counsellors in this research provided their clients with platforms of their choice. This means that the platforms that a counsellor should use have to be agreeable for both parties. In addition, counsellors can give options considering students were not aware of the available platform. In this case, a counsellor must be well integrated in using ICT, draw on the pros and cons of each platform and only give the best options for the clients. In this study, there was a counsellor who also carried out a survey for the purpose of finding an accessible and most preferred platform from the student's perspective, which, in the researcher's opinion, is a good idea. On the other hand, if a counsellor feels like a face-to-face platform would be the best option, it would be better to have an agreement with the clients. In this research, the majority of the participants were using WhatsApp. This is contradicted with a statement by Abdullah, S (2021), an experienced counsellor from *Persatuan Kaunseling* (PEKA) who handled various clients in session during the pandemic, whereby he preferred and highly recommended counsellors to maximise the use of face-to-face online platforms for counseling sessions. In that case, he would suggest clients of the available medium such as using Zoom application (Abdullah, S). On the other hand, Walker (2007) asserted that the act of writing can be therapeutic in and of itself. Writing has long been regarded as a useful tool for self-disclosure, externalization of difficulties and most importantly, self-awareness (Barak, 1999). Aside from that, writing can help people cope with their emotions by allowing them to express themselves in whichever way they wish (Yager, 2001). Poh Li et al. (2013) strongly agreed that when compared to face-to-face counseling sessions, some people are more honest and expressive in writing, in this case, the use of WhatsApp is helpful.

Research Question 2 : What are the challenges from the counsellors' experiences using e-counseling ?

Based on their responses, many found e-counseling to be a challenge as they had to adapt with the setting after being comfortable with the traditional counseling. All of the counsellors agreed that, while the challenges came from the external factors such as the clients, most of it came from within themselves. There were counsellors that discussed their hardship adapting to the new technologies despite the age factor. Another challenge that was being mentioned in the finding was exploring counsellors' way of reaching to all students in their respective schools which some of them found impossible due to students' lack of accessibility to new technologies especially those who are underprivileged. Lastly, the inability to trace clients' facial expressions and their difficult situations that limits the use of e-counseling. As agreed by Suler (2004), online sessions have caused lack of physical interactions and only focused on the connection of the introspective.

On the other hand, according to Wagner et al. (2014), while there were restrictions in terms of physical cues and connectedness in online counseling, clients with certain mental health conditions may benefit from the session due to its anonymity nature where they felt more secure. To overcome this, Stofle (1997) revealed that symbols such as "smileys" and emoticons can indicate a wide range of emotions and facial expressions. Clients and counsellors can create a collection of standardised emoticons and acronyms. To avoid misunderstandings and to ensure that both the client and the counsellor understand each other, the counsellor should constantly check with the client (Stofle, 1997). In addition, based on the responses, the participants managed to overcome their challenges instead of just accepting them as inevitable struggles. An ultimate way in handling the challenges was having the passion in the job was a tremendous help in conquering the obstacles and this was shared in the finding which made it as an overall strong statement in how the counsellors manage to overcome their own challenges. Furthermore, having to consistently improve themselves despite their years of experiences is a way to increase self-awareness and surround themselves with more open resources. Counsellors should seek out essential training in technology, theory, applications, and ethics, as well as licensing rules, to ensure the competency of online counseling services (Zack, 2008).
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Conclusion

From the findings, the researcher relates how online counseling is being delivered as the researcher is a future counsellor and experienced online counseling in the midst of the pandemic in Brunei. The researcher benefited greatly and made use of the data collected from the experienced counsellors which proved to be useful. Hence, it is safe to say that this research would bring major contribution to future counsellors should an unprecedented event were to occur such as COVID-19 outbreak. Online counseling, like face-to-face counseling, carries a significant deal of responsibility. Both face-to-face and virtual relationships should be treated with the utmost professionalism and ethics as even if an online client is communicating virtually, his or her problems are real and exist. The findings from this research are useful and implementable since it could help future counsellors improve their interventions or approaches. Overall, they all shared their online experiences and obstacles to answer the research questions. It is hoped that more researchers are open to study COVID-19 situations in Brunei. This research can be improved to measure the effectiveness of counsellors' online approaches. Also, this research only looked at the online approaches used by counsellors and did not consider whether the platforms used were efficient and functional for counseling sessions. Additionally, this research will be complimented if more research on online counseling experiences with other parties is explored. For instance, the students' view and opinion on the efficacy of online counseling and their online preferences. Lastly, further exploration on the use of technology and platforms for different and individualised functions such as Google Form to collect clients, Telegram for online session, Zoom for face-to-face session would be beneficial to include to support the literature.

Acknowledgement

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Crime Motivation of Recidivist Inmates in the Class 1 State Detention Center (*Rutan*) Surakarta

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Abstract

Many problems arise in the detention center related to the coaching of Correctional Inmates. Even though some inmates are recidivists, they even move to different detention centers. In this case, the inmates certainly have their motivation in committing the crime so they become a recidivist. The purpose of this research was to describe recidivist inmates' motivation in committing their crimes. This research used the qualitative method by doing interviews and observations to collect the data. The data were analyzed through a descriptive narrative. The subjects were 5 inmates in the Class I State Detention Center (Rutan) Surakarta who committed repeated crimes in various cases. The result of this research shows the motivation of inmates in recidivism is influenced by economic factors, environmental factors, psychological factors, the influence of others, opportunities, and habits to commit crimes. To reduce recidivists from committing crimes, it is necessary to pay attention to the factors that trigger these crimes.

Keywords: prison inmates, recidivist, motivation

Introduction Section

Crime is a part that coexists with human life. All human activities in their daily lives, whether in terms of politics, economics, and society become objects in committing crimes. In this case, the perpetrator who commits a crime is called a criminal. The meaning of criminal is relative because in this case, the meaning of criminal comes from the realm of value. Thus, assessing criminals varies depending on humans in defining it. The crime that has been committed by one person is not necessarily recognized by the other party as a crime. The severity and lightness of the crime that has been committed by a person can be considered and debated. Therefore, with the existence of criminals, it is necessary to find prevention and handling efforts to suppress the quantity and quality of these crimes as low as possible (Hussein, 2003). Crime is an antisocial act that consciously gets a reaction from the state in the form of giving suffering and then as a reaction to the legal definition of crime (Bonger in Santoso et al., 2010). According to (Santoso & Zulfa, 2010), crime can be classified into three kinds of understanding. The practical (sociological) understanding of crime is a violation of religious norms, habits, and morals that live in a society. The religious understanding of the transgression of God's commandments is called evil. Juridical understanding is seen from criminal law, crime is any act or omission that is prohibited by public law to protect the community and is punished by the state.

Criminals are usually trained in prisons or correctional institutions. Article 1 number 16 of Law Number 22 of 2022 concerning correctional centers explains that the State Detention Center, hereinafter referred to as prison, is an institution or place that carries out the function of Service to Detainees. Prison is a technical implementation in the field of detention for investigation, prosecution, and examination in court. Meanwhile, structurally, the detention center is directly responsible to the Head of the Regional Office of the Ministry of Law and Human Rights of the Republic of Indonesia. Based on the Decree of the Minister of Justice and Human Rights of the Republic of Indonesia No. 03.PR.07.03 of 1985 dated 20 September 1985 concerning the Organization and Work Procedure of the State Detention Center and the State Confiscated Goods Storage

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House and based on the Decree of the Minister of Justice of the Republic of Indonesia No. 02-PK.04.10 of 1990 dated 10 April 1990 concerning Implementing Instructions and Technical Instructions No. E76-UM.01.06 of 1986 dated 17 February 1985 concerning the Treatment of Prisoners and in the Regulation of the Minister of Law and Human Rights of the Republic of Indonesia No. M.01.PR.07-10 Year 2005, the State Detention Center is located as a Technical Implementing Unit that carries out the Main Duties of the Ministry of Law and Human Rights of the Republic of Indonesia. The main job of the State Detention Center is to carry out the treatment of suspects or defendants under applicable laws and regulations. The function of the detention center is to provide services and care for the suspects or accused of crimes, to maintain and order the detention center, to manage the detention center, and to carry out the administrative affairs of the detention center.

Article 1 number 3 of Law Number 22 of 2022 concerning correctional centers states that inmates are prisoners, fostered children, and clients. Article 1 point 6 of Law Number 22 of 2022 concerning Corrections explains that prisoners are convicts who are serving a prison sentence for a certain time and life or sentenced to death who are waiting for the implementation of the decision, and who are undergoing coaching in a correctional institution. Furthermore, Article 1 point 7 states that fostered children are children who are 14 (fourteen) years old, but not yet 18 (eighteen) years old who are undergoing coaching at a special child development institution. Article 1 point 8 explains that a correctional client, hereinafter referred to as a client, is someone who is in community coaching, both adults and children.

A criminal who repeats the same crime even though he has been sentenced is called a recidivist (Adami, 2002). The term recidivist in the Criminal Code is called the repetition of a crime. Recidivism is a relapse of criminals. It includes rearrest, reconviction, and reimprisonment (Fazel & Wolf, 2015). Repetition of a crime or what can be called a recidivist, namely in the case of a person who has committed several acts, each of which is an independent crime, where one or more acts have been sentenced by a court with permanent legal force (Prasetyo. 2010). Based on the nature of repeated crimes, they can be divided into general recidivists and special recidivists (Prasetyo. 2010). A general recidivist is someone who has committed a crime and is sentenced to a crime he has committed, then there is a repetition of the crime in each type of crime so in this case the repetition of a crime can be taken into consideration in giving an incriminating sentence. A special recidivist is a person who has committed a crime that has been sentenced by a court with permanent legal force yet after serving a sentence there is a repetition of a similar crime so that it can be taken into consideration in an incriminating sentence for the crime committed.

Recidivists repeating the same crime as previous crimes are based on certain motivations. Motivation is a psychological symptom in the form of encouragement from a person consciously to take an action with a particular goal. Motivation can also be in the form of efforts made by someone to achieve goals. Motivation can also be called a plan to achieve success and avoid failure in someone's life. In this case, if someone has the motivation to do an activity, it means that he or she has the power to succeed in life (Nugraha & Abidin, 2013). Motivation consists of intrinsic motivation and extrinsic motivation. Intrinsic motivation is a motive that becomes active without any external stimulation. It is because within the individual there is already an urge to carry out an activity. While extrinsic motivation is an active and functioning motive that requires an external stimulus. A person performs an activity also because of encouragement from the surrounding environment (Prihartanta, 2015). Motivation has a significant role in a person committing the same crime (recidivist). Therefore, it is necessary to know what motivates the inmates to repeat the same crime or recidivist in the Class I State Detention Center (*Rutan*) Surakarta.

This research aims at describing the crime motivation of the correctional inmates in the Class 1 State Detention Center (*Rutan*) Surakarta who have committed the repeated crime and had been sentenced (recidivist).

Method

This research uses a qualitative approach. The qualitative method is a research process that produces descriptive data in the form of written or oral sentences from people and observed behavior (Bogdan and Taylor, 1975). Qualitative research is a method in social science that fundamentally depends on the observations of humans in their own eyes and relates to that person in language and terminology (Kirk and Miller in Moleong, 2018).

The subjects in this research were 5 correctional inmates who committed repeated crimes or were recidivists at the Class I State Detention Center (*Rutan*) Surakarta. The list of subjects who participated in this research can be seen in table 1 as follows:

Table 1. Subjects In Class 1 State Detention Center Surakarta

No.	Name (Initial)	Gender		Age (Year)	Case	Recidivist to
1	F	L	±	32	Robbery	15
2	S	L	±	40	Drug	2
3	PB	L	±	50	Fraud	2
4	DG	L	±	25	Theft	6
5	KP	L	±	40	Theft	4

To collect the data, interviews, and observations were employed. Interviews are a form of a direct conversation conducted by researchers to obtain information related to the research they are doing from respondents. In conducting interviews with respondents, researchers used interview guidelines (Rachmawati, 2007). Interviews were conducted in a semi-structured method. Observation is an observation made directly by using the senses, namely sight, hearing, smell, and touch, and if it is necessary, it uses taste (Alhamid & Anufia, 2019).

Data analysis used in this research is data analysis with descriptive narrative. Descriptive is a procedure of solving the problem under study by providing a description of the state of an object of research carried out and based on the facts as they are (Nawawi & Martin, 1996). A narrative is a thought where the collection of events that occurred which later became a coherent narrative of events (Darmanita & Yusri, 2020). Hence, the data analysis of this research uses a descriptive narrative, namely by providing an overview of the events that have occurred related to the object of research carried out and then compiled into a biased narrative.

Result and Discussion

This research was conducted in August 2022 in the Class I State Detention Center (*Rutan*) Surakarta. A detention center is a place where suspects or defendants are detained during the process of investigation, prosecution, and examination in court. A prison is a place where a person who has not been proven to have committed a crime or a person who has not been sentenced by the court but is strongly suspected of having committed a crime. The function of the detention center is only to temporarily detain a suspect or defendant. There are ± 555 inmates in the detention center and ± 28 inmates at the Polres then divided into Block A ± 32 female inmates, Block B ± 239 male inmates, Block C ± 151 male inmates, and Block D ± 101 male inmates. The majority of inmates were caught in drug and theft cases.

From the results of interviews and observations, it is known that the factors that motivate recidivist prisoners in the Class I State Detention Center (*Rutan*) Surakarta to commit crimes include:
1. Economic Factor

Based on the information from subject F, subject PB and subject KP said that they repeated the crime of recidivism because of economic demands which were an obligation that they had to fulfill. They think that if they do these actions, they can fulfill their economic needs in their daily lives. In this case, the economic factor is a problem that is often faced by inmates so various ways and efforts are carried out to meet their needs, even with deviant actions, namely committing crimes that violate applicable laws. Even though the perpetrators have served time in a correctional institution, they are still determined to commit the same crime again and again because this is triggered by instinct and pressure from the economic problems they face.

According to Suhaidi (2021), economic factors are one of the motivations for recidivist prisoners in prison. Economic pressures and demands, unfair economic conditions, and high cases of poverty in the community lead to crimes such as theft and fraud to fulfill their daily needs.

2. Environmental Factor

The results of interviews with respondents S and KP stated that they had committed a crime as a result of an invitation from a friend and also had not gotten a job to support their daily life. The social environment is very influential on individuals in acting and making decisions. It can lead to deviant actions and violate the norms that live in society. Behavior is not carried out based on logical awareness because the social environment will change their behavior, it can even lead to the same wrongdoing. According to Weber (Kanti and Hartanti. 2022), social action theory states that individuals can act due to the dominance of feelings or emotions that arise without a conscious plan so that the actions taken are irrational and spontaneous which describe the emotional condition of the individual. In the community, all actions that deviate from the norms that live in society are a violation of the law which can then disrupt order and peace in social life. It can cause various kinds of reactions from the public.

3. Influence from Others

Edwin Sutherland's theory of Differential Association, states that criminal acts can be learned through interactions that arise when serving a criminal sentence in a correctional institution (Hardianto. 2018). Based on information from the subjects with the initials F and KP, they said that the repetition of criminal acts or recidivism was caused by correctional inmates at the time in the correctional institution exchanging stories of experiences related to crimes committed so that they ended up serving criminal sentences. In this case, they learn from each other's experiences to apply when they have finished serving their criminal sentence. They learn new ways to commit crimes again. The influence of others while serving a criminal sentence has an important role because there are no restrictions on interaction based on a background in the prison. Prisoners are influenced to commit repeated crimes in the hope that through the method that they learnt, they can commit crimes and not be caught and also undergo a judicial process.

4. There are Opportunities and Habits to Commit Crimes

Whereas based on the statement of the subject's initials, PB revealed that he committed a crime because he felt he had an opportunity, while the initial subject DG revealed that he had gotten used to it and felt satisfied when he committed a crime. Opportunities can arise because individuals no longer have control over themselves so they end up committing repeated crimes.

The existence of opportunities and opportunities is one of the factors that influence individuals to commit repeated or recidivist criminal acts. Individuals committing criminal acts of crime are recidivists because of addiction and habit (Nugraha and Abidin. 2013).

5. Psychological Factor

Based on the initial subject's statement, DG revealed that he committed the crime because it was difficult to contain his desire to steal. This is influenced because the control of the subject is weak so it is easy to be influenced to commit criminal acts of recidivist crime. The repetition of criminal acts is the result of a series of previous experiences, such as emotions, thoughts, perceptions, and other events that include psychological processes that actively shape certain behaviors (Zamble & Quinesy, 2007).

The factors mentioned above become the motivation of the perpetrators to re-do the crimes they have committed. This motivation arises because they have no other choice but to meet the needs of life in any way even though the actions taken are contrary to applicable law.

Sutherland (in Djanggih & Qamar, 2018) states that the factors that influence recidivist crime are first learned from other people who have done it. Second, it can be learned from interactions caused by other people either directly or indirectly. Third, the individual is in a criminal group. Fourth, they have the technique studied and have justification and motivation. Fifth, have a pattern of thought that is contrary to applicable law. Sixth, because of the impact of differential associations of frequency, duration, intensity, and priority. Seventh, being in an association that learns various patterns of crime as well as anti-crime and fulfillment of needs.

Acknowledgement

From the discussion above, it can be concluded that the prisoners in the Class I State Detention Center (*Rutan*) Surakarta commit repeated crimes or are recidivists due to particular motivations. Prison inmates are motivated to commit recidivist crimes because of several factors, namely: economic factors, environmental factors, psychological factors, the influence of others, and opportunities and habits to commit crimes. Thus, the individual commits a repeated criminal or recidivist crime because of the motivation to achieve the goal, that is, the result in a short time. The crimes committed by the five subjects in this research seemed to be the income to meet their daily needs.

Based on these findings, suggestions that can be given are:

a. For subjects, they must cultivate self-control to become better people and refuse any invitation or influence to take actions that violate the law.
b. Correctional Institutions need to provide knowledge to inmates and control correctional inmates, so they know that their actions are wrong and violate applicable laws and regulations, and disrupt peace and order in society. Agencies must also guard the psychology of prisoners in prison so that they become better individuals in social life.
c. For other researchers, this research can be used as a reference related to the motivation of inmates who commit repeated or recidivist crimes.

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Effects of Family Communication during Mealtime to the Psychosocial Well-Being

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Abstract

Purpose in this study to explain the interaction effects of family communication during mealtimes to the relationship between the frequency of family meals and the psychosocial well-being of emerging adults. The researchers used Quantitative Designs that used qualitative interviews to support quantitative findings. The researchers used the standardized Communication Effectiveness Scale to measure how effective communication is during mealtime and the Psychological Well-Being Scale by Ryff to determine the psychosocial well-being of the respondents who are emerging adults aged 18 to 22 years old and are from Laguna and Batangas. After gathering the data, the researchers further interviewed five participants to gather data regarding family mealtimes. The data gathered were analyzed through frequency distribution, weighted mean, correlation, and moderation analysis. The results showed a significant relationship between the frequency of family mealtimes and psychosocial well-being. However, family communication during mealtime did not moderate the relationship between the predictor, frequency of family mealtime, and the outcome psychosocial well-being. The study aimed The researchers intended to specifically (1) determine the usual topic that is present during mealtimes; (2) determine the level of communication effectiveness in terms of belongingness, clarity, empathy, and non-verbal communication; (3) determine the level of psychosocial well-being of the respondents in terms of autonomy, environmental mastery, personal growth, positive relations with others, purpose in life and self-acceptance; (4) determine the relationship between frequency of family meals and psychosocial well-being; and (5) determine the interaction effects of family communication during mealtime to the relationship between the frequency of family meals and the psychosocial well-being.

Keywords: family communication; psychosocial well-being; emerging adults

Introduction Section

There are many traditions that are being practiced by Filipinos and one of these is the act of eating together. In the culture of Filipinos, eating is not just a way to replenish your energy and to fill their stomach, but this is the time wherein they can strengthen their communication with their family. During the pandemic, the relationship between families really changes, especially in the routines that they have done before the pandemic like how they communicate with each other or eat together. There were various restrictions that have been implemented so that the numbers of infected could be controlled. One of the restrictions that have been implemented are lockdown, work-from-home set-up and online classes for students (Üstün & Özçiftçi, 2020). Many families are stuck inside in their house, and in the research of Öngören (2021), it has been discussed that there were positive and negative outcomes that happened within the family during this time. The family may become closer because during the time that they have, they are always at home. That is why they can give more time to their children, but it could also result in domestic conflicts, communication problems and mobile addictions. In creating a healthy family life one of its foundations is having a strong family connection through communication (Robinson & Brotherson, 2016). By having open communication, parents are involved with their children's development. During the period of adolescence, conflicts between parent and child relationships have become frequent and intense, this is thought to be a way for parents and their children to negotiate their relational changes to an egalitarian relationship (Branje, 2018). Family meals encourage everyone to get together and express their views

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and ideas. It is also an opportunity to practice social skills by listening and taking turns in conversation (Denmon, 2020). Participating in family rituals such as eating meals together is said to be an important factor in creating well-being. Family members who dine together often are healthier and less prone to develop eating disorders and addictive behaviors (Offer, 2013).

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Family Relationship during Pandemic

Various changes have occurred during this pandemic, especially when it comes to the lifestyle and relationship between members of the family. One of these is the set-up for education and work, in which both are in an online set-up. Due to this, there was an increase in periods of isolation and time spent at home (Öngören, 2021). Education Institutions also resorted to learn-from-home set-up so that students can still learn despite the events that are happening right now. These new developments have affected the family lifestyle, making it more difficult for the entire family to maintain a healthy and sustainable life (Yıldız, 2020).

In the past years, Researchers discussed that the relationship of the parents and their child is a two-way relationship wherein they have reciprocal effects on one another. As this pandemic is still ongoing, the relationship between families is also being affected both positively and negatively, and how they try to overcome the situation varies from family to family. In relation to this, the results of Öngören (2021) showed that there are positive and negative aspects in the relationship of the family members during this pandemic. In addition to that, the relationship between family members is more positive than negative during this pandemic, which shows that despite the changes and challenges that can happen, family is still essential, especially the relationship they have with each other. The positive relationships between the family show that they gave time and support to one another. Communication was also positively established as they try to be more understanding and help each other during difficulties. However, despite the positive evaluation, some families also experience negative situations like disagreements, boredom, and problems communicating due to spending extended periods together.

Frequency of Mealtime

The frequency of family meals develops positive feelings and attitudes about one's life and the family connection (Lawrence & Plisco, 2017). Adolescents who had meals with their families regularly reported stronger family bonds, more parental supervision, and improved communication with their parents (Utter et al., 2013). Family meals may have the extra advantage of encouraging happy emotions rather than merely avoiding negative ones. The regularity of family dinners may foster sentiments of belonging and comfort. Eating together may prevent adolescents from sadness and risky behaviors by providing a regular and safe setting where parents check their daily activities and connect emotionally (Musick & Meier, 2012).

Frequent family meals were significantly associated with the adolescents' perception of family relationships, compliance with parental guidance, and better psychosocial outcomes. However, further study is necessary to establish causation since there are minimal risks of encouraging families to opt for regular family meals with their children (Harrison et al., 2015). A study conducted in Hong Kong identifies the risk factors of infrequent family meals due to older age, separated/divorced/ widowed parents, and less educated fathers that lead adolescents to develop risky behaviors and can worsen family function (Wong et al., 2021).

According to research done by (Offer, 2013), teenagers reported increased positive affect and engagement and less stress when they ate meals with both parents, as compared to when they did not. Similar correlations were seen while having meals only with the father. Eating meals with the mother showed a more limited association with well-being, being associated with only engagement.

Frequency of Mealtime

Regular parent-adolescent communication is an essential first step to reducing stress in the parent-adolescent relationship (Wong et al., 2021). Which expressive families were more likely to enact the following everyday talk categories: small talk, joking around, catching up, recapping the day's events, reminiscing, making up, love talk, relationship talk, serious conversations, talking about problems, decision making, making plans, and asking a favor (Burns & Pearson, 2011). A study conducted in Canada indicated that family dinners might benefit adolescents' well-being. Links between family dinners and mental health are partially attributable to the ease of communication between adolescents and parents. (Elgar et al., 2013)

Often, when a teenager does not understand the essential meaning of a message, the responsibility is with the parent, who failed to understand and chose the least acceptable mode of communication with their child. Proper communication is critical in the parent-child relationship, even more so if the parents want to establish a more effective means of conveying to their children the essential life principles that will lead them in the present and particularly the future (Runcan et al., 2012).

The time spent with family is usually short because of the busy schedule. However, the opportunity to connect and check up with the other family members, especially their children, comes through family meals (Musick & Meier, 2012). In addition to this, communication during mealtime allows an opportunity to adequately convey their thoughts, ideas, stories, and experiences with their family. Through this situation, deep and meaningful connections are formed and strengthened within the family (Gonzales & Vargas, 2021). In connection to this, according to Eisenberg et al. (2004), as cited by Fruh et al. (2011), discussion of family history during mealtime makes the children feel that they have stronger bonds with the member of their family, higher self-esteem, and greater sense of control over their lives. This is also the opportunity to know what is happening with their lives, properly guide them with their difficulties, and talk about their future. It is also the time to show their affection to their children and how much they care for them (Asnan et al., 2014).

Effects on Psychosocial Well Being of the Children in the Family

Psychosocial well-being is a broader concept that encompasses emotional or psychological well-being, as well as social and collective well-being. "Quality of life" is identical with psychosocial well-being in that it encompasses emotional, social, and physical components. (Eiroa- Orosa, 2020)

A family meal is essential in a child's life as this can be when they can communicate with their parents, especially regarding their difficulties or concerns. Eating meals together can also promote the thinking that they can lean on their parents, and the parents can also be more aware of what is happening to the well-being of their children. In connection to this, Fulkerson et al. (2008), as cited by Prior & Limbert (2013), discussed that family meals serve as an opportunity where each family member can have the time to communicate and lean on each other. Various research in the past also discussed that Family meals could positively influence the well-being of adolescents, such as being emotional support, learning proper communication skills, and manners.
Since adolescents enjoy autonomy, they are also expected to show filial piety, meaning to show the attitude of obedience, devotion, and care toward one's parents and elderly family members. Disagreements between teenage personal choices and parental beliefs and expectations may negatively influence adolescent psychological well-being (Wong et al., 2021).

Adolescence is the crucial stage of development as this is when they need to learn how to solve interpersonal conflicts and youth adaptation. According to Brannen & O'Brien (2002), as cited by Armstrong-Carter & Telzer (2020), the adolescent stage is when the child transitions towards autonomy and invests more time towards peers. Through eating together with their family, they could maintain and strengthen the bond with their family. In connection to this, family Meal provides an excellent environment for adolescents as they feel more connected to their family, giving them a sense of belongingness and emotional support (Fruh et al., 2011).

Emerging Adulthood

In the Study of Arnett (2015), the word "emerging adult" describes a person aged 18- 29 years old. This is a person's transition from being an adolescent into an adult. It discussed that emerging adults have different

features from adulthood and adolescence. There are five features in emerging adulthood, (1) *Identity Explorations*, where they seek their identity, try different life choices, and decide what they want to do. (2) *Instability*, emerging adults, are usually involved in different life-changing plans. The plans that they once had usually changed as they discover new things. During this revision, they also learn new things regarding themselves (3) *Self-focus,* as they transition into adolescence and young adulthood, they slowly build the foundation for their adult life and better understand life and themselves. This is when they learn to stand alone and make a life-changing decision by themselves (4) *Feeling in between,* being in this stage, they get confused on what stage they are in when they encounter some situation. Their attitudes as adolescents sometimes emerge even though they want to be an adult in a situation. Lastly, the (5) *Possibilities and Optimism*, as there will be multiple futures that they can imagine, dreams that they want to attain, sometimes these things are usually not attained, and drastic changes are experienced.

The transition from adolescence to adulthood is a critical time at the same time. It is a unique period, as this is when a person is not adolescent anymore, but at the same time, they are still not an adult. In this stage, they experience life-changing choices, like leaving their home to become independent, what they would choose for their education path, or will they already work. They also encounter more social interaction with new people, which sometimes challenges their social skills (Jorgensen & Nelson, 2018).

Gender

Males and females reported the same social benefits associated with family meals, such as increasing family togetherness and assisting in stress reduction; however, males perceived family meals to be more stressful on average, and the perception that meals were stressful or unpleasant was associated with lower ratings of the importance of family meals among females but not males (Prior & Limbert, 2013).

In the previous research of Eisenberg et al., (2004); Fisher et al. (2007), Sen (2010), and Fulkerson et al. (2006) as cited by Asnan et al. (2014), there were different results regarding the effects of family meals towards adolescence development in terms of their gender. Eisenberg et al., (2004) and Fisher et al. (2007) reported that there is a strong effect towards the girls while the latter two researchers said that there is no difference in the effects between the genders.

Figures and tables

Table 1. *Frequency of Family Meals*

Frequency of Family Meals	Frequency	Percent
We do not eat together	7	7.3
Once a week	5	5.2
2 times a week	7	7.3
3 times a week	6	6.3
4 times a week	3	3.1
5 times a week	8	8.3

6 times a week	4	4.2
7 times a week	56	58.3
Total	96	100

Table 1 shows the frequency of Family Meals; 58.3% answered that they eat together *seven times a week*, and 3.1% answered that they eat together with their family *four times a week*. Frequently eating together has been a long tradition that Filipinos have been doing. These results show that the tradition of eating together has been done up until now, especially during the pandemic. In addition to that the participants also described eating together as a way to strengthen the bond of the family members with each other and there are instances wherein not eating together as a family could lead to problems. According to Anne Fishel, eating meals together as a family at least four times a week benefits a child's development. Frequent family dinners are related to improved mental health. Parents who shared meals regularly reported more robust levels of family functioning, increased self-esteem, and decreased depressive symptoms and stress (Fishel, 2021).

Table 2. *Frequency* of Topics in a Family Mealtime

Topics	Frequency	Percent
No Communication	35	36.5
Current Events	40	41.7
Daily Activities	31	32.3
Past Events	32	33.3
Future Events	41	42.7
Common/Personal Interests	48	50

Table 2 shows the frequency of topics in a Family Mealtime, 50% responded that they usually talk with their family about *common or personal interest* and 32.3% talk about the *daily activities* that they do. The results demonstrate that the topic of the conversation during family mealtime is usually about common interests. This suggested that as the participants are in the age of emerging adults, the usual topic that the family discusses with them is something that they will be needing in the future and that can help them in connecting to society. Parents familiar with the state of emerging adulthood are more equipped to assist their emerging adult children in successfully navigating this critical life period, therefore preparing the foundation for a good parent-adult-child connection. Emerging adulthood is a time of intensive self-discovery (Goldsmith, 2018). This exploration of self-identity encompasses the development of adult identities and capabilities for love and work and the clarification of worldviews and beliefs.

Table 3. *Summary of Communication Effectiveness*

Dimensions	Mean	SD	Verbal Interpretation
Belongingness	5.32	1.02	Slightly Agree
Clarity	4.84	1.01	Slightly Agree
Empathy	5.00	1.19	Slightly Agree
Non-verbal Communication	5.20	1.26	Slightly Agree

Legend: 6.50-7.0=Strongly agree; 5.50-6.49=Moderately agree; 4.50-5.49=Slightly agree; 3.50-4.49=Neutral; 2.50-3.49=Slightly disagree;1.50-2.49=Moderately disagree; 1.00-1.49= Strongly disagree

Table 3.5 shows the summary of the level of Communication Effectiveness, Belongingness has a (M=5.32, SD=1.02), Non-verbal Communication has a (M=5.20, SD=1.26), Empathy has a (M= 5.00, SD= 1.19) while clarity has a (M= 4.84, SD=1.01). The results show that they all have verbal interpretation of *Slightly Agree*. Communication is effective when there is a *sense of belongingness* in the conversation, as long as they are involved with the topic. Involvement on the topic of conversation, emerging adults will most likely stay at the dinner table since it may concern them as well in the future. When an individual is able to feel that they belong to a certain group or community it enhances their pleasure, confidence (Drolet et al., 2013), and has a greater sense of life meaning (Lambert et al., 2013). While in the sense of *clarity*, it may be effective yet there may be parents that are unable to explain clearly what they want to convey during the conversation, which can cause misunderstanding or miscommunication. In addition to that even though most of the participants eat together with their family this does not guarantee that they are complete during mealtimes due to busy schedules or conflicting schedules of both parents and as well as their children.

Table 4. *Summary of Psychosocial Well-Being*

Dimensions	Mean	SD	Verbal Interpretation
Autonomy	4.41	0.92	Neutral
Environmental Mastery	4.77	1.02	Slightly Agree
Personal Growth	5.12	1.05	Slightly Agree
Positive Relations with others	5.06	1.02	Slightly Agree
Purpose in Life	5.00	0.99	Slightly Agree
Self-Acceptance	4.64	1.11	Slightly Agree

Legend: 6.50-7.0=Strongly agree; 5.50-6.49=Moderately agree; 4.50-5.49=Slightly agree; 3.50-4.49=Neutral; 2.50-3.49=Slightly disagree;1.50-2.49=Moderately disagree; 1.00-1.49= Strongly disagree

The table 4.7 shows the summary of the level of the Psychosocial Well-Being, Personal Growth has a (M= 5.12, SD= 1.05), Positive Relations with others has a (M= 5.06, SD= 1.02), Purpose in Life has a (M= 5.00, SD= 0.99), Environmental Mastery has a (M=4.77, SD=1.02), Self-Acceptance has a (M= 4.64, SD=1.11) while Autonomy has a (M=4.41, SD=0.92). The results show that they all have a verbal interpretation of Slightly Agree excluding Autonomy which is interpreted that respondents of the study are Neutral in this dimension. In the Psychosocial Well-being it mainly affects the emerging adults *Personal Growth* in which the highest mean score in that dimension is that there is continuous learning, changing, and growth (Baggio et al., 2017) whenever they engage during family mealtimes. *Autonomy* is the lowest dimension that affects the psychosocial well-being of the respondents, emerging adults have a tendency to think and analyze first the argument before stating their opinions. Although they may say that they aren't afraid to voice their opinions but rather choosing their arguments to avoid miscommunication or any misunderstanding within their family.

Table 3. *Correlation Analysis between Frequency of Family Meals and Psychosocial Well-Being*

		Frequency of Family Meals	Interpretation
Autonomy	Pearson Correlation Sig. (2-tailed)	0.316** 0.002	Moderate, direct significant
Environmental Mastery	Pearson Correlation Sig. (2-tailed)	0.221* 0.03	Weak, direct significant
Personal Growth	Pearson Correlation Sig. (2-tailed)	0.208* 0.042	Weak, direct significant
Positive Relations with others	Pearson Correlation Sig. (2-tailed)	0.326** 0.001	Moderate, direct significant
Purpose in Life	Pearson Correlation Sig. (2-tailed)	0.241* 0.002	Weak, direct significant
Self-Acceptance	Pearson Correlation Sig. (2-tailed)	0.316** 0.002	Moderate, direct significant

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

There is a moderated *direct significant relationship* between frequency of family meals and the dimensions of psychosocial well-being, mainly the positive relations with others, *r = 0.33, p = 0.00.* while frequency of family meals and the personal growth has a weak direct significant relationship, *r = 0.21, p = 0.04*. The dimension, positive relations with others, assesses the extent of having satisfying relationships with others. The connection between the two variables suggests that the frequency of family meals is essential in building the psychosocial well-being of emerging adults, especially in building relationships with others. The frequent family meals help

the emerging adults in developing their social skills. While personal growth, which refers to the extent to which an individual uses their talents and potential, shows a weak connection with the frequency of the family meals. The family meals still contribute to the development of personal talents. This weak connection may suggest that there could be another factor that could strongly affect personal growth development. These results also imply that as the frequency of family meals increases, the participants' psychosocial well-being increases. Even though the frequency of family meals could not fully explain or affect the psychosocial well-being of emerging adults, family meals are still contributing to the development of their well-being.

The present finding confirms that the frequency of family meals is essential in building the psychosocial well-being of emerging adults. This result may have also been affected by the conflicting schedules of the family in which this may lead to misunderstanding between parent and their child since there is only limited time in which they would consider themselves that they were able to bond with each other as a family. This is supported by the comprehensive review of Harrison in which it demonstrates that frequent family dinners benefit children and adolescents' psychosocial development and that Parents' and teens' hectic schedules are frequently cited for fewer family meals (Harrison et al., 2015).

Table 4. *Moderation Analysis between Frequency of Family Meals and Family Communication*

Predictor	β	P	Lower CI	Upper CI
Frequency of Family Meals	0.04	0.85	-0.33	0.41
Family Communication	0.64	0.19	0.15	1.12
Frequency of Family Meals x Family Communication	0.00	0.09	-0.07	0.07

The results of this table highlights that there is no significant interaction effect, β = 0.00, 95% CI [-0.07, 0.07], p = 0.09, indicating that the relationship between frequency of family meals and psychosocial well-being is not moderated by family communication. The findings suggest that Communication during family meals does not strengthen or weaken the connection between family meals frequency and psychosocial well-being. As the participants of the study are emerging adults, they are conflicted about how they will behave in accordance with their already mature age yet being looked at by others as still young-minded. This may be due to emerging adults exploring whether they would be dependent on their parents or be independent. The respondents' sample number may also affect the results as to why there are no interaction effects between the variables. As the sample size of the research study is small, it could be that 96 respondents are not enough to observe the interaction effects of family communication during mealtime. According to Ali Memon et al. (2019), when sample variance is less than population variance, even by a negligible amount, the statistical power to detect moderating effects is significantly reduced. This implies that the sample size of the study may not have been enough to detect moderating effects.

Statistical Treatment

The statistical treatment for the quantitative design where the frequency, mean and standard deviation, correlation, and moderation analysis was utilized. Correlational analysis is a method to measure the degree of association between the variables, if they have close association or not (Senthilnathan, 2019). In this study, the

researchers found out the association between the frequency of the family meal and psychosocial well-being. For moderation analysis, it tested if the moderation variable affects the relationship between the independent and dependent variable and how it strengthens or weakens the relationship of the variables. The concept of moderation analysis discusses when or under what conditions the changes occur. This model showed the within-level interactions of the variables in which the first interaction is the direct effect of the frequency of family meals on psychosocial well-being. It also established the relationship between the two variables without the moderating effect. The second interaction was the moderating effect of the moderating variable on the relationship between frequency of family meals and psychosocial well-being. The second interaction showed how the moderating effects alter the relationship between the two variables (Dawson, 2014).

Acknowledgement

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Examining the Moderating Effects of Masculinity Threat between the Precarious Manhood Belief and Level of Amusement on Sexist Jokes

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Abstract

The study aimed to determine the relationship between Precarious Manhood Beliefs (PMB) and man's level of amusement (LOA) in sexist jokes through the moderating effect of masculinity threat.The researchers used standardized instruments to identify the PMB levels and Amusement levels on Sexist Jokes of 156 participants who are 18 years old and above, male heterosexual 4th year college students at selected universities around Laguna and Batangas. The data gathered were analyzed through Independent Sample T-test, Pearson's R and Moderation Analysis through Process by Hayes. The results of the study showed that heterosexual males under the threat condition had a higher level of PMB and LOA in sexist jokes. Heterosexual males under the threat condition have higher LOA in sexist jokes. There was no significant difference in the scores for the threat condition and non-threat condition in terms of PMB. On the other hand, there is a significant difference in the scores for the threat condition non-threat condition in terms of LOA in sexist jokes. The findings also indicated a significant relationship between PMB and LOA in sexist jokes. Masculinity as the moderator in this research strengthens the relationship of Precarious Manhood Belief and Level of Amusement in sexist jokes.By further analyzing the relationships of the variables, this thesis assumes that males who have a high level of PMB are under the pressure of following the societal standards of "masculinity" to prove they are "real men."

keywords: masculinity; precarious manhood belief; sexist jokes

Introduction Section

The length of the papers should be minimum 3000 words and maximum 8000 words, excluding abstract and references. The concept that men are produced, not born, is accepted literally in some societies. Men in East Africa's Samburu and Maasai herder communities are not allowed to marry or have children until they have killed their first ox. Boys from these tribes must likewise endure a circumcision rite without anesthesia and without displaying any signs of discomfort to become men (Saitoti, 1986). Similarly, before being deemed men, Kung Bushmen of the Kalahari Desert in southwest Africa must kill an antelope (Thomas, 1959), and Sambian highlanders of New Guinea must endure a violent, excruciating scarification ceremony (Herdt, 1982). Even though these cultures differ in many ways, they share a concern with active, public displays of manhood. Gilmore's (1990) Masculinity in the Making, which argued that manhood is elusive and precarious across quite diverse cultures and that most cultures demand some social evidence of manhood via action, is one of the most thorough examinations of manhood in anthropology. As a result, various field studies proved the idea that masculinity is fragile and requires public evidence. Thus, viewing manhood as elusive and precarious has two ramifications. The first is that threats to men's manhood will cause fear and threat-related feelings in males, and the second is that questioned manhood would make men frequently feel obliged to display their manhood by actions – the precarious manhood belief in a nutshell.

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Men and masculinity are stereotyped with dominating positions, leader-like traits, and power, while women and femininity are associated with reliance, social support, and nurturing (Eagly & Karau, 2002). Masculinity is a prized social identity and earned position defined by three fundamental traits that men must exhibit to be considered "good men" (Fischer & Good, 1998). First, males should act in ways that display power, status, and dominance, particularly over women (Rudman & Glick, 2008). Men, for example, should lead rather than follow and influence rather than be influenced – in this way, they should dominate rather than be controlled (Vescio, Schlenker, & Lenes, 2010). Second, males must be physically, emotionally, and mentally robust (Thompson & Pleck, 1986). Therefore, males must bear suffering, refrain from displaying pain and sadness, and endure unpleasant circumstances without complaining. Third, males should reject and separate themselves from everything feminine, homosexual, or otherwise unmanly, such as stereotypically feminine roles, behaviors, and sentiments (Pascoe, 2011). Men risk losing their masculinity if they fail to demonstrate the core characteristics of masculinity. Hence, masculinity is unstable and quickly lost if the essential traits of masculinity are not regularly shown in public (Bosson & Vandello, 2011). Since men and women are in opposing ways, a lack of male characteristics equates to femininity, and a display of feminine features equates to masculinity failure. Therefore, if men are told that they are feminine – their precarious manhood belief starts to drop off and they experience masculinity threat.

To restore men's threatened masculinity, they engaged in sexist jokes, disparagement humor that degrades and belittles women as a group (humor target) that men (actors) typically initiate. According to the Social Identity Approach, sexist humor aims to boost the morale and cohesiveness of the ingroup (male). On the other hand, sexist jokes introduce or encourage a hostile attitude toward the outgroup (women). According to a previous study, people start and appreciate disparaging humor partly because it confirms the threatened social identities of a group (Tajfel and Turner 1986). That is, it establishes the superiority of one's ingroup over relevant outgroups (Abrams et al., 2015). In addition, gays and women represent femininity, which is the opposite of masculinity. Men might want to separate themselves from the qualities they want to disprove by displaying contempt or prejudice toward women and gays. As a result, discrimination against women and gays might serve as a method of preserving and reinforcing one's masculinity (Glick et al., 2007). Men's enjoyment of two forms of disparagement humor (sexist and anti-gay jokes) thus has a self-affirming role in restoring their threatened masculinity.

However, using sexist jokes is not a positive method to restore their threatened masculinity. According to Pryor (1995), the most frequent forms of sexual harassment women encounter in the workplace are teasing and sexist jokes. Also, according to the same author, males are much more likely than women to make sexist jokes at work. As a result, jokes aided males in establishing a heterosexist status hierarchy, sometimes blurring the boundary between humor and harassment in such a manner that they disguised their negative attitudes towards women as humor.

According to a study performed in 2016 by the Social Weather Stations (SWS) as part of the UN Women's Safe Cities Metro Manila Program, three out of every five women in the Philippines had experienced sexual harassment at least once in their lives. One in every seven women experienced sexual harassment at least once a week in the previous year according to 800 respondents from two Quezon City barangays. Also, one in every seven males confessed to committing an act of sexual harassment at least once a day in the same year. Seventy percent of these incidents occur during the workday (Cabral, 2017). Not to take it farther away, Philippine President Rodrigo Duterte, who is criticized for sexist statements and behavior during his term, is an example of how Filipino males continue to objectify women and even commit violence against them. Some of his comments have been seen as victim-blaming, such as claiming that rape numbers in Davao City are high because the women in the said area are attractive. Duterte has also threatened to kill female communists in the vaginal area. He is also known for his statement during his administration that he should have been the first to rape an Australian missionary in Davao City since he was the former mayor of that place. According to Presidential Spokesman Harry Roque in November 2020, Duterte resorted to sexist insults to cope with the misery he observed in typhoon-hit areas. This came after Duterte made a joke about having too many ladies with Presidential Adviser for Bicol Affairs Marvel Clavecilla, to which Clavecilla answered that he was "undersecs," a

wordplay on his actual position of undersecretary. Duterte also claimed that a COVID-19-infected official he knew died because he "lacked women."

Sexist messages such as those from the paragraph mentioned above significantly promote workplace tolerance for sexual harassment. These raunchy jokes and vulgar humor that attack women and other minorities are harmful to the company's culture, and the silent recipients who deep inside are supporting it and thereby contributing to the problem. As a result, if sexist remarks are uncalled for and continue to be tolerated or normalized, sexual harassment will also be acceptable. This leads to the conclusion that making such jokes is within the bounds of socially accepted behaviors. Also, according to Ms. Margolis, a senior researcher at Human Rights Watch, most jokes are meant to be jokes. Still, some individuals mistakenly believe sexual comedy at work is a kind of sexism, making women feel excluded. These things have the potential to shut individuals down and make women feel compelled to hide their true selves. Women in the office typically laugh at these kinds of jokes because they do not want to be regarded as too emotional, sensitive, or unable. According to a Melbourne Business School report, sexist jokes in the workplace are one of the most significant variables affecting women's capacity to thrive. Sexism was "one of the most prevalent and pronounced" indications of women's "fit" in their organization, a significant risk factor that harmed women at work. According to the same research, women are less likely to stay in their jobs or organizations if they feel like they do not belong or are not treated equally. Thus, sexist humor isn't only harmless enjoyment in general because it can alter men's views of their immediate social environment, allowing them to feel at ease with these sexist conducts without fear of criticism. In fact, according to Boxer (2010), this kind of humor is highly pervasive in the workplace, although it is subtle. These types of humor might cause people (mainly the joke's target) to create unclear interpretations of the message because of their lightness. As a result, sexist comedy is often normalized, leading to a kind of subtle harassment. Some of the damaging effects of sexual harassment are tolerance of offensive behaviour that can affect employee behaviour in the long run and create an intimidating, hostile, or abusive work environment. It also includes a negative impact on women's work performance and promotion of a male-dominated workplace where gender stereotyping and sexual harassment are most likely to occur.

Researchers believed that studying the effect of masculinity threat on how precarious manhood belief is related to the men's level of amusement in sexist jokes is essential in identifying men who might have problematic behavior in the workplace. This paper aimed to determine that men with high PMB levels are more likely to make sexist jokes in the workplace when presented with threats. If this is proven, companies and other industrial institutions can use PMB as a scale to assess how male employees are likely to commit sexist jokes. Upon identifying men high in PMB, they can make further interventions to protect women in the workplace. Interventions may include seminars or training that will raise awareness of why sexist jokes should not be practiced, promoting personal developmental programs, and appraisal or assessments of women's safety in the workplace.

Figures and tables

Table 1 *Precarious Manhood Beliefs of Participants under the Threat and Non-threat Condition*

Statements	Threat Condition		Non-threat Condition	
	Weighted Mean	*Interpretation*	*Weighted Mean*	*Interpretation*
1. It is fairly easy for a man to lose his status as a man.	3.99	Neutral	3.58	Neutral
2. A male's status as a 'real man' sometimes depends on how other people view him.	4.49	Slightly True	3.95	Neutral

3. Some boys do not become men, no matter how old they get.	5.00	Slightly True	4.95	Slightly True
4. Other people often question whether a man is a 'real man'.	5.51	Somewhat True	5.19	Slightly True
5.Manhood is something that can be taken away.	3.92	Neutral	3.45	Slightly Not True
6. Manhood is not assured – it can be lost.	4.26	Neutral	3.65	Neutral
7. Manhood is not a permanent state, because a man might do something that suggests that he is really just a 'boy'.	4.97	Slightly True	4.42	Neutral
Composite Mean	4.59	Slightly True	4.17	Neutral

Note: *Never or almost never true: 1.00 - 1.85, Somewhat not True: 1.86 - 2.71, Slightly not True: 2.72 - 3.57, Neutral:3.58 - 4.43, Slightly True: 4.44 - 5.29, Somewhat True: 5.30 - 6.15, Always or almost always true: 6.16 - 7.00*

Significant findings can be observed from Table 1 on the sample's responses to the seven statements of Precarious Manhood Belief Scale. Surprisingly, participants under both the threat and non-threat conditions had the same statements for their two highest and two lowest weighted means. First, both conditions considered statements 4, "Other people often question whether a man is a 'real man'" (WMTC: 5.51, WMNTC: 5.19), and 3, "Some boys do not become men, no matter how old they get" (WMTC: 5.00, WMNTC: 4.95), as the most accurate statements to describe masculinity with the highest weighted mean. Second, statements 5, "Manhood is something that can be taken away" (WMTC: 3.92, WMNTC: 3.45), and 1, "It is fairly easy for a man to lose his status as a man" (WMTC: 3.99, WMNTC: 3.58), ranked the lowest in terms of their weighted means. Lastly, based on the data, it can also be noticed that statements for both the threat and non-threat condition were arranged exactly in the same order. The format followed statements 4, 3, 7, 2, 6, 1, and 5, set according to the truest to the least true respectively. In general, the weighted mean for PMB level of the threat condition was 4.59 while the non-threat condition was 4.17.

Respondents on both conditions tend to observe that other people often question whether a man is a "real man" as it is the highest weighted mean. This result indicates that society has constructed standards of what a "real man" is, and if male individuals cannot meet those constructs, their masculinity will be put on the line. Evidently, such a norm is not that apparent for female individuals as there's no term such as "real woman" often used against women. On the other hand, men are always compelled to prove that they are "real men" through various actions and behaviors expected of them by society. Similarly, participants under both conditions also believe that some boys do not become men, no matter how old they get. It indicates that they see manhood not relative to biological tendencies but rather from a societal perspective. As a result, they think that a younger male individual can be considered a "man" while an older male can be regarded as a "boy" despite their age differences. This result simply implies that manhood is not easily achieved because growing up doesn't guarantee being considered a "man." Instead, a male individual must work and meet specific standards to be a man, who signifies that manhood is elusive and hardly won. On the other hand, participants under the non-threat condition seemed to think that taking manhood away is slightly not true. This means that this group of heterosexual males is somewhat more comfortable with their masculinity and does not intensely worry that their

manhood will be carried off from them than the participants under the threat condition who seemed neutral on this statement. Nonetheless, both group conditions still mark this statement with the lowest score, which means they do not think this was accurate compared to other statements. In addition, respondents on both conditions are also neutral with the idea that it is relatively easy for a man to lose his status as a man, which indicates that they think this might be true or not. Culturally and socially speaking, there are many things concerning a "lost manhood", especially in a patriarchal country like the Philippines. For example, a househusband is seen as inferior to working male individuals; the same is true for males who do not know how to play basketball, wear pink, cry and are emotional, are not into alcohol, or do not drive. Therefore, there is a chance that respondents think that it is easy for a man to lose his status as a man who is expected to be superior to women. On the other hand, respondents might also think that the status as a man is not easily lost because even though there are lots of women empowerment movements and feminist groups promoting gender equality in the Philippines, their dominance and power as men are still more recognized and acknowledged in various aspects. It can be drawn as well that participants on both conditions had the same insight when it comes to Precarious Manhood Beliefs as they rated the statements in the same manner from the truest to least true. However, these perceptions vary as the threat condition has a higher PMB level than the non-threat condition. This implies that although participants on both conditions have the same understanding of PMB, participants under the threat condition are more likely to believe that manhood is elusive, tenuous, and requires public action than participants under the non-threat condition.

Interpretation 1: Statement 4, with the highest weighted mean, implies that being man requires more public actions and behaviors to prove their masculinity.

The claims mentioned above are not relatively new in the literature although they have recently been given attention. In fact, several studies can be used to support and back up such claims with valid and reliable pieces of evidence. First, Vandello et al. (2013) conducted three experiments to support the above results. The third experiment of Vandello (2013) supports the claim that society created standards that men are compelled to follow or else their manhood will be questioned. In this experiment, the researchers asked males and females to complete open-ended sentences that began with "A true man..." or "A true woman..." to demonstrate that manhood required behaviors and public evidence. Based on their results, they found out that when describing "a real man," participants used more action words than trait phrases. This indicates that men must perform masculine activities with active efforts to achieve and maintain gender status as a "real man." In addition, several pieces of evidence from various parts of the world and groups of people have demonstrated that men are produced by society and not born. In some indigenous communities, boys achieve manhood status through rituals involving physical separation and isolation and painful or dangerous endurance tests (Gilmore, 1990; Herdt, 2017). Men in East Africa's Samburu and Maasai herder communities are not allowed to marry or have children until they have killed their first ox. Boys from these tribes must likewise endure a circumcision rite without anesthesia and without displaying any signs of discomfort to become men (Saitoti, 1986). Similarly, before being deemed men, Kung Bushmen of the Kalahari Desert in southwest Africa must kill an antelope (Thomas, 1959), and Sambian highlanders of New Guinea must endure a violent, excruciating scarification ceremony (Herdt, 1982). At present, based on Netchaeva's (2015) research using the concept of precarious manhood belief, when a woman holds a higher organizational position, males in lower positions feel threatened, which causes them to be more assertive toward a female supervisor and campaign for themselves. When participants bargained with a supervisor named David, they accepted the job offer right away. Still, those who dealt with a supervisor named Sarah declined and countered with a numerical counteroffer. As a result, it was established that when males engage with female supervisors, they feel threatened and to prove their manhood, they respond more assertively. It's also possible that, rather than feeling threatened, male participants behaved assertively because they anticipated women to be submissive in negotiating situations, which would make it easier for them to force and exploit. Therefore, men are constantly driven to act and behave in society's "masculine constructed standard" to prove they are more powerful, authoritative, and superior.

Interpretation 2: Statement 3, with the second highest weighted mean, implies that manhood, being socially constructed and determined mostly by the society, is elusive.

Second, to support the second claim that manhood is socially determined instead of biologically determined, the first experiment of Vandello (2013) is utilized. In this experiment, researchers asked the respondents how

much of the change from "boyhood to manhood" or "girlhood to womanhood" could be ascribed to biological characteristics (e.g., puberty) as well as social influences (e.g., achieving socially valued goals). Participants associate the change from boyhood to manhood more strongly with social than physical causes. They attribute the boyhood-manhood transition more strongly to social factors than the girlhood-woman transition, supporting the view that manhood is more inclined with society. Unlike men, being a woman is viewed as a status that follows biological changes that are once obtained, remains secure, and is less likely to be challenged. However, men being more tied with society means that manhood is elusive and must be earned by meeting social expectations. "An authentic femininity rarely involves tests or proofs of action or confrontations with dangerous foes," Gilmore (1990) observed in his anthropological assessment of manhood throughout the world. Masculinity is something that males must achieve by achieving specific social milestones, whereas femininity occurs naturally to girls due to a sequence of unavoidable physical and biological changes. In addition, this is also supported by novelist Norman Mailer (1966) who once observed that masculinity is not something being given but is something being gained through winning small battles with honor. Therefore, according to Levant (2011), masculinity can be regarded as tenuous and quickly lost instead of an innate, secured, and biologically determined quality. With this fluidity, men are vigilant in guarding their manhood against threats and learn various ways to restore and reaffirm their masculinity once threatened. This is further supported by Michniewicz et al. (2012) about their study regarding involuntarily unemployed adults. This research found that men, compared to women, expected a harsher denigration of their gender status and predicted a more laborious evaluation of their manhood since men's gender identification has traditionally been linked to their capacity to work and provide for their families. Male participants in the study signify losing a job as a "loss of gender status." When recalling their job loss, these men estimated a more significant threat to their gender status (they estimated that other people saw them as "less of a man"). This evidence clearly shows that to be deemed a man, an individual has to meet specific standards set by society. If the male individual cannot meet these socially constructed standards, then his masculinity will be threatened and questioned.

Interpretation 3: Statement 5, with the lowest weighted mean and regarded as slightly not true by the non-threat condition and neutral for the threat condition, implies that participants in the non-threat condition are more comfortable with their masculinity compared to participants in the threat condition.

Third, the result wherein participants under the non-threat condition think that manhood can be taken away as slightly not true reflects that they are more comfortable with their masculinity and less anxious when faced with threats. Therefore, this group is more likely to have lower PMB than the threat condition which is evident based on the composite mean. Following the logic of PMB, according to Kalish and Kimmel (2010), men who have lower levels of PMB are not that afraid to violate gender norms and are, therefore, not likely to experience stress and anxiety brought by the gender-role discrepancy. Also, Vandello et al. (2013) instructed their participants in a study to complete a word completion activity whose underlying objective was to evaluate the cognitive accessibility of ideas associated with anxiety and danger. According to the findings, men with lower PMB levels completed fewer anxiety-related words than men with greater levels of PMB.

Interpretation 4: Statement 1, with the second to the lowest weighted mean and regarded as neutral for both conditions, implies that participants on both conditions think that this statement might be true or not. (Similar with Statement 5 being considered neutral by the threat condition).

On the other hand, the neutral perceptions in statements 5 and 1 reflect the idea that participants think these statements might be true or not. Hence, there might be a part for these respondents wherein they think manhood can also be taken away. Based on Vandello's (2013) second experiment wherein researchers asked participants to evaluate the meaning of an ambiguous phrase regarding "lost masculinity" or "lost womanhood," they found out that participants offered more explanations related to "lost masculinity" than "lost womanhood." According to this study, participants were more familiar with giving reasons about lost masculinity because it is more convenient. This implies that manhood status may be lost more quickly. In particular, Kimmel (1996) stated that despite significant changes in the idea of manhood throughout American history, it has always been marked by uncertainty, difficulty, and the desire to prove oneself. In a study conducted by Cohen (2012), researchers reported that a description about "no longer being a man" makes much more sense to respondents than a statement about "no longer being a woman." Participants find the masculine version of the statement better to perceive and grasp. Additionally, the statement about lost manhood was understood mainly in social terms ("He

no longer fits society's definition of a man"). Still, the statement about lost femininity was interpreted primarily in physical ones ("She had surgery and is no longer a woman"). This result indicates that masculinity is a precarious, socially acquired status. In contrast, femininity is a long-lasting status that is only lost (if at all) due to physical or biological adjustments.

In contrast, they might think that losing status as a man is slightly false because they may have not experienced it given the Philippines' culture. In fact, according to the Philippine Commission on Women, although the Philippines is in the top 16 countries for closing the gender gap, this ranking is still considered relatively unstable. In 2019, based on the data provided by the Global Gender Gap Report, the Philippines ranked as a top 14 country to close the gender gap, but in 2020, the country ranked down as top 16. This indicates that Filipinos are starting to value gender equality and women empowerment, especially in Asia, as it is the leading country to close the gender gap, but this movement seems not linear. In addition, based on this report, the Philippines tend to downgrade in ratings because of decreasing female representations in the cabinet which significantly declined from 25% to 10% between 2017 and 2019. Female representation in Congress also fell slightly at 28% at the beginning of 2019. This means that men still hold a more powerful position than women in terms of rights and privileges. Having a higher position in the social hierarchy gives men the perception that they cannot quickly lose their status as it is already deeply embedded in the culture no matter how many feminists and women empowerment movements arise.

Table 2 *Level of Amusement in Sexist Jokes of Participants under the Threat and Non-threat Condition*

Statements	Threat Condition		Non-threat Condition	
	Weighted Mean	*Interpretation*	*Weighted Mean*	*Interpretation*
1. What's the difference between a knife and an argumentative woman? A knife has a point	6.69	Somewhat Funny	5.69	Slightly Funny
2. I have received hundreds of replies to my advertisement for a wife and they all say the same thing – "Take mine."	6.17	Slightly Funny	4.86	Neutral
3. Why do only 10% of women make it to heaven? Because if they all went, it would be called hell.	6.90	Somewhat Funny	5.72	Slightly Funny
4. What is the difference between a wife and a mistress? One is cheating on you, the other is cheating with you.	6.06	Slightly Funny	4.76	Neutral
5. What is the difference between a battery and a woman? A battery has a positive side	6.45	Somewhat Funny	5.17	Neutral
6. If I had a dollar for every girl that found me unattractive, what would happen? They would eventually find me attractive.	6.85	Somewhat Funny	5.79	Slightly Funny

7. What's the smartest thing a woman can say? Anything that starts with, "My husband says…"	6.27	Slightly Funny	5.01	Neutral
8. What do you call a woman with half a brain? Gifted.	5.51	Slightly Funny	4.63	Neutral
9. How many women does it take to screw in a light bulb? One – she just holds it up there and waits for the world to revolve around her.	6.19	Slightly Funny	5.29	Neutral
10. What should you do if your woman walks out? Shut the door and celebrate.	6.29	Slightly Funny	5.12	Neutral
11. If your dog is barking at the back door and your wife is yelling at the front door, who do you let in first? The dog of course…at least he'll shut up after you let him in.	6.67	Somewhat Funny	5.64	Slightly Funny
12. What do you call a woman who's lost 95% of her intelligence? Divorced.	5.82	Slightly Funny	4.47	Slightly not Funny
13. I'm not sexist, because being sexist is wrong and being wrong is for women.	5.14	Neutral	4.12	Slightly not Funny
14. Why do men die before their wives? They want to.	6.47	Somewhat Funny	5.63	Slightly Funny
15. Why does a woman have a clear conscience? Because it's never used.	6.12	Slightly Funny	4.79	Neutral
16. What's the difference between a woman and a rain puddle? A puddle goes away after the sun comes up.	5.88	Slightly Funny	4.81	Neutral
17. What do elephants have over women? Intelligence, loyalty, and genuine kindness.	5.44	Neutral	4.21	Slightly not Funny
18. What do you call a woman with an opinion? Wrong.	6.27	Slightly Funny	5.01	Neutral

	5.17	Neutral	4.17	Slightly not Funny
19. How are the office of the President and Tolkien's book The Hobbit alike? Neither had a girl in them and neither should.	5.17	Neutral	4.17	Slightly not Funny
20. Why is it a bad idea to ask Siri "What do women want?" She has been talking nonstop for the last two days.	6.83	Somewhat Funny	5.95	Slightly Funny
Composite Mean	6.16	Slightly Funny	5.04	Neutral

Note: Not Funny at All: 1.00 - 1.88, Not Funny: 1.89 - 2.77, Somewhat not Funny: 2.78 - 3.66, Slightly not Funny: 3.67 - 4.55, Neutral: 4.56 - 5.44, Slightly Funny: 5.45 - 6.33, Somewhat Funny: 6.34 - 7.22, Funny: 7.23 - 8.11, Very much Funny: 8.12 - 9.00

Table 2 presents the weighted mean and interpretation for each joke in Comedy Rating Form as the level of amusement in sexist jokes of participants under the threat and non-threat condition. Respondents on both conditions rate the same jokes for the most amusing and least amusing ones. The jokes with the highest weighted mean for both conditions are statement 3, "Why do only 10% of women make it to heaven? Because if they all went, it would be called hell" (WMTC: 6.90, WMNTC: 5.72), statement 6, "If I had a dollar for every girl that found me unattractive, what would happen? They would eventually find me attractive?" (WMTC: 6.85, WMNTC: 5.79), and statement 20, "Why is it a bad idea to ask Siri "What do women want?" She has been talking nonstop for the last two days." (WMTC: 6.83, WMNTC: 5.95). On the other hand, the set of jokes with the lowest weighted means was statement 13, "What do you call a woman who's lost 95% of her intelligence? Divorced" (WMTC: 5.14, WMNTC: 4.12), statement 19, "What do you call a woman with an opinion? Wrong" (WMTC: 5.17, WMNTC: 4.17), and statement 17, "What's the difference between a woman and a rain puddle? A puddle goes away after the sun comes up" (WMTC: 5.44, WMNTC: 4.21). In addition, it is essential to note that statements interpreted as "somewhat funny" in the threat condition were almost the same statements labeled as "slightly funny" of the participants under the non-threat condition. In the same way, statements considere "slightly funny" for the threat condition happened to be the almost identical statements identified as "neutral" for the non-threat condition. Lastly, "neutral" statements for the threat condition are interpreted as "slightly not funny" for the non-threat condition. In general, participants under the threat condition have an average weighted mean of 6.16, while participants under the non-threat condition had an average weighted mean of 5.04.

Three main interpretations can be drawn based on the results provided in Table 2. First, the heterosexual males on both conditions found the same set of jokes that were primarily amusing and least amusing to them - perceiving the jokes in the same way. Hence, this result means that participants have the same type of humor, disparaging humor, regardless of what conditions they were placed in and regardless of their PMB levels. Since the participants are mostly amused by the same kind of jokes accordingly, it can be inferred that they were amused mainly by jokes that foster discriminatory behavior and beliefs against women. Second, since participants found the same jokes for the most and least amusing, it can be said that these might be affected by various underlying factors. Many factors might affect the humor and amusement of a person in a joke, such as familiarity with the context, the culture of the audience, and language used. Lastly, participants under the threat condition seem to find the set of sexist jokes more amusing than the non-threat condition. However, this difference can be accounted for by two primary references (1) the presence of masculinity threat in the threat condition and (2) the higher level of precarious manhood beliefs of respondents in the threat condition. Suppose a heterosexual man is presented with a masculinity threat. In that case, telling him he is feminine makes him more likely to be amused in sexist jokes making himself lean farther from femininity and restoring his threatened masculinity. Similarly, suppose a heterosexual male has a higher level of PMB. In that case, he is also more likely to be amused by sexist jokes because men are driven to display their manhood through actions proving he's a man according to societal standards.

Interpretation 1: Participants having the same type of humor.
According to Lawless et al. (2020), the study's author where the sexist jokes are adopted, the jokes used in the questionnaire were designed to be sexist and offensive while targeting women. Therefore, if people find the list of jokes amusing, they are more likely to tolerate and participate in various problematic behaviors. Based on the results, both conditions rate the same set of jokes similarly, which implies that participants of this study have the same type of humor. Regardless of their PMB levels or being presented with masculinity threat or not, they will both see and perceive the jokes in the same way. Participants' amusement by jokes that foster discriminatory behavior and beliefs against women tells that these heterosexual males can tolerate discriminatory acts. According to Saucier et al. (2016), the report of explicit and severe micro-assaults towards women has been proven to be promoted by sexist humor through stereotypes. In their recent study, Saucier et al. (2018) stated that the normative aspect of humor could perpetuate prejudices about stigmatized groups such as women or Black people through disparaging humor. Language may also serve as an excuse to sexist beliefs by portraying them as socially acceptable "jokes" through sexist jokes. Sexist jokes being acceptable has harmful repercussions such as men rating sexist workplace remarks as less offensive (Ford, 2013), damaged women's emotions with detrimental impact on motivation and performance (Abrams et al., 2015), women may engage in discriminatory behavior toward other women but males would not engage in these improper practices toward other men (Abrams & Bippus, 2014), and worst is that tolerance of rape culture, victim-blaming, violence towards women, and even men's self-reported rape proclivity have all been linked to exposure and engagement to sexist humor (Strain et al., 2016; Thomae & Viki, 2013; Thomae & Pina, 2015). These studies show that sexist humor might jeopardize women's rights such as financial and social standing, self-image, confidence, and physical security.

Interpretation 2: The similarities in the participants' type of humor can be accounted for several reasons such as familiarity with the context, culture of audience, and language used.
According to Tsakona (2020), several contextual factors have been identified as necessary in studying humorous discourse. Based on the semantic structure conceptualized by Chomsky (1965), context is a vital component of humor since it helps recognize and interpret jokes in situations when everyone has the same sense of humor, perceiving hilarious content in the same way. According to Raskin (1985), the hearer receives every humorous remark in some context before other people deliver it. If the context is not provided clearly by the speech or circumstance, the listener fills in the blanks using his prior experience. If the listener is unable to do so, he is unlikely to understand the comment or joke, and as a result, find it unfunny. Moreover, Canestrari (2010) and Tsakona (2013) emphasize the importance of context in processing humorous statements. Some of the components they included as to why an individual may find a joke amusing are the (1) shared situational knowledge or the participants' mutual perception of their ongoing activities, (2) shared cultural knowledge on the beliefs, history, events, attitudes, values, and behaviors that may influence humor, and (3) shared knowledge of code or the linguistic choice made for a humorous utterance or text. As a result, some participants may find the jokes on the Comedy Rating Form hilarious as they understand the context. In contrast, others may not see it as amusing because they lack the same common knowledge to appreciate the meaning of the remarks.

Aside from context, culture has a significant impact on people's perceptions of humor. Hiranandani (2014), for example, has established that Easterners do not have the same positive attitude toward humor as their Western counterparts. In comparison to Westerners, Easterners are less prone to utilize comedy as a coping method. In a similar field of study, Jiang (2019) mentioned that Westerners have attributed humor with positivism and considered humor as a natural entertainment expression. On the other hand, Easterners have a negative attitude toward comedy, particularly in China, where Confucianism has undervalued humor. People in this country are hesitant to acknowledge their sense of humor for fear of damaging their self-image and social reputation. As a result, the Chinese do not consider humor a desirable personality quality. Furthermore, cultural variations have been connected to how humor is employed when it comes to the use of humor. According to Yue X. et al. (2016), people in Western nations, regardless of their social status, tend to utilize humor to cope with stress or challenges; however, this is not the case in Eastern countries. According to Martin and Ford (2018), Easterners employ more adaptive humor, whereas Westerners use more maladaptive humor. Chen and Martin (2013) conducted a study in which they invited Chinese and Canadian students to fill out the Humor Styles Questionnaire (HSQ) and Coping Humor Scale (CHS). They concluded that Canadian students used the four categories of humor (self-enhancing, affiliative, self- defeating, and aggressive humor) more frequently than

Chinese students, particularly aggressive humor. As a result, Chinese people are less likely to employ violent jokes as a coping mechanism, which is not unexpected. Aggressive humor is attributed to increased individualism, which values independence and assertiveness, and low collectivism (Martin & Ford, 2018). Therefore, cultural factors play a big part in how someone will perceive a joke because their cultural background primarily shapes an individual's understanding and perception of a statement.

Language establishes unseen barriers between in-groups and out-groups by providing a distinctive means for self-expression and promoting a sense of community among its speakers. In line with this, Erodi (2012) asked three groups of people (English, Hungarian, and bilingual speakers) to evaluate 32 jokes on various topics in research. Respondents of the study found jokes written in the participant's dominant language to be more amusing than jokes made in the non-dominant or minority language. As a result, Dominant Hungarian participants found Hungarian jokes funnier than English jokes, whereas Dominant English participants found English jokes more amusing. This study implies that the language in which jokes were delivered was a key stimulus feature that affected the participants' evaluation. These findings reveal that language significantly impacts people's expressed values, both in terms of code and content. Furthermore, in their study of Japanese students' perceptions of humor, Neff (2017) discovered that factors such as gender and academic discipline had no significant impact on the participants' perceptions of humor, but English language competency did. Students with a higher level of English proficiency showed a higher level of comfort and cultural comprehension of English humor than students with a lower level of English knowledge. Also, based on the findings of this study, language instructors must carefully assess the goal of utilizing humor, particularly considering the cultural context. English humor and sarcasm, for example, are frequently misunderstood in Japan and hence have the potential to mislead or even disturb students. Therefore, evidence shows that language can serve as a barrier in understanding and perceiving the thought behind a joke - if someone is not that proficient in a particular language where a joke is used, there are possibilities of confusion and misunderstanding. If a joke is not delivered well in a language that a person is not proficient enough, then the listener may not receive the joke's amusing nature.

Table 3 *T-test Results Comparing Threat and Non-threat Condition on PMB and LOA*

Threat Condition			Non-threat Condition		
	M	*SD*	*M*	*SD*	*t-test*
PMB	4.59	1.554	4.17	1.104	.053
LOA on sexist jokes	6.16	1.885	5.04	1.936	.000*

*p < .05

Table 3 presents the comparison of two groups in this study in terms of PMB and LOA using an independent sample t-test. There was no significant difference in the scores for the threat condition *(M=4,59, SD=1.554)* and non-threat condition *(M=4.17, SD=1.104)* in terms of PMB *(p>0.05)*. On the other hand, there's a significant difference in the scores for the threat condition *(M=6.16, SD=1.885)* and non-threat condition *(M=5.04, SD=1.936)* in terms of LOA in sexist jokes *(p<0.05)*.

Following the results from Table 1, participants under threat and non-threat conditions rated the statements in PMB scale in the same order, ranking statements 4, 3, 7, 2, 6, 1, to 5 from highest to lowest weighted mean respectively. The order of statements ranked this way indicates that participants under both conditions have the same understanding of what the statements imply. Moreover, the varying composite mean for the two groups suggests that respondents in the threat condition have a higher level of PMB than the non-threat condition. However, based on Table 3, this difference is not statistically significant which means that the PMB level of two group conditions are similar. Therefore, there is no difference in the level of Precarious Manhood Beliefs of participants under the threat or non-threat condition.

According to Vandello et al. (2008), these men who have higher levels of PMB are frequently felt driven to display their manhood via action, particularly when being challenged. Vandello (2013) also stated that these men believe that manhood is "tenuous" and "elusive," and it cannot be gained or maintained as one gets older.

Therefore, heterosexual males in both conditions are likely to react and prove their manhood when they experience masculinity threats. These males may also find sexist jokes amusing because their high level of PMB will oblige them to demonstrate their masculinity. A study done by Connor (2017) supported this claim wherein they found that males with higher PMB levels enjoy sexist and anti-gay jokes because they feel it validates and reaffirms their masculinity. According to the findings, men with greater levels of PMB found sexist jokes to be more amusing than neutral jokes after being threatened with masculinity. PMB was seen as a significant factor in this study that correlates to the enjoyment of sexist jokes. In line with this, Kroeper (2014) research revealed that respondents in their study with high PMB are less likely to confront the confederate's evident sexual prejudice. Since addressing prejudice was connected with fearing one would be perceived as gay, high precarious manhood indicated lower rates of addressing sexual prejudice.

Based on Table 3, there is a significant difference on the threat and non-threat condition's level of amusement in sexist jokes, thus, participants under the threat condition find the sexist jokes more amusing than participants under the non-threat condition. This difference can be accounted for by the presence of masculinity threat (moderator) and not on PMB, since there is no significant difference found for the participants' level of PMB.

Sexist humor is a type of mockery that belittles and humiliates women as a group (humor target) and is frequently perpetrated by men (actors). Men utter sexist jokes because it strengthens male in-group cohesiveness, according to Thomae (2015). Based on the findings of their study concerning the function of sexist humor, researchers discovered that undesirable views against women, like hostile sexism, may partly be the outcome of the threat women bring to the current gender hierarchy. Researchers contend that men may feel threatened with their social and economic status with a more significant number of women than men completing higher education and joining the workforce. With this, men tend to respond or react with misogyny and prejudice. As a result, the concept of disparagement humor can be regarded as a way to release prejudice in a disguised form. Disparagement of the out-group establishes the male in-group's uniqueness and positivity towards themselves but may weaken the female out-group by compromising women's social identity. This is supported by Siebler et al. (2014), who examined the link between sexism and actual harassing behavior. Men with a high likelihood to sexually harass (LSH) delivered more sexist jokes to women than men with a lower likelihood to sexually harass (LSH) when presented with threat. Furthermore, the target female was more likely to be harassed if she was perceived as a feminist. These observations suggest that sexual harassment, particularly sexist jokes, can be a reaction to a threat to a man's identity and a strategy to re-establish the intergroup hierarchy. This backs up Ferguson and Ford's (2012) claim that disparaging humor like sexist jokes reduces threatened feelings of an in-group (male). Therefore, if a man experiences masculinity threat, he is more likely to laugh at sexist jokes as a way to restore his threatened masculinity and feel better about themselves.

Table 4 *Pearson Correlation between Precarious Manhood Beliefs and Level of Amusement on Sexist Jokes*

Variables	r-value	p-value	Interpretation
PMB vs Level of Amusement	.308	.000	Significant

Note: *Correlation is significant at the 0.05 level (2-tailed)*

Table 4 presents the correlation computed among two questionnaires, Precarious Manhood Belief Scale and Comedy Rating Form, on data for 156 heterosexual fourth-year college students. Results indicated a significant positive relationship between the PMB and LOA on sexist jokes, r(155)= .308, p<.001. This suggests that heterosexual males with a higher level of PMB have a higher level of amusement at sexist jokes.
PMB refers to men's belief that manhood is elusive, tenuous, and requires public action to be maintained - thus, it is socially dependent. If something depends on what society perceives, then it is vulnerable, fragile, and easy to lose since society, not oneself, holds the judgments for one's behavior based on socially constructed standards. Therefore, if a male with a high level of PMB experiences threats to his masculinity, such as being told feminine, he is compelled to prove his masculinity in all possible ways to make society think he is not feminine.

The anxiety felt by someone who is pressured to prove his masculinity might make him engage in inappropriate behaviors, in this case, to engage and laugh at sexist jokes. Hence, if someone has a high level of PMB, he is more likely to be amused by sexist jokes because, in this way, he can distance himself from femininity. If a male individual is told that he is feminine laughs at something degrading to women, he implicitly detaches himself from femininity. Also, since women represent femininity, which is the polar opposite of masculinity, men might want to separate themselves from the qualities they want to disprove by displaying contempt or prejudice toward women. As a result, discrimination against women through sexist jokes might serve as a method of preserving and reinforcing one's masculinity.

The direct and positive relationship between PMB and men's LOA on sexist jokes can be explained by several studies. First, according to Vandello and Bosson (2013), "real men" have an "anti-femininity mandate" that develops as boys break from and no longer rely on female figures such as mothers (Freud, 1937; Horney, 1932) and requires avoiding femininity to reach manhood. Therefore, men who have high levels of PMB avoid being associated with femininity because it will shake their masculine identity. With this, it is apparent that linking males with femininity threatens masculinity. In a study done by Kouchaki (2015), the researcher stressed how such threats might induce anxiety, leading to unethical and self-interested acts. According to this study, employees are more prone to engage in negative defensive coping strategies in the face of job-related tension, stress, and anxiety. The study's findings also show that, compared to persons in a neutral condition, anxious people are more likely to act unethically when the circumstances allow. A sense of threat influences this immoral action. In terms of the focus of this research, when males feel threatened, they experience anxiety, which permits them to act unethically. Engaging, tolerating, and laughing at sexist jokes are subtle things that can be considered sexual harassment, hence regarded as unethical. According to Hunt and Gonsalkorale (2014), sexist humor is classified under hostile environment harassment. Harassment in a hostile workplace occurs when women workers are subjected to insulting, gender-related or sexual remarks frequently that may or may not be related to job efficiency. The most concerning aspect of this is that a recent study has demonstrated that the combined impact of sexist attitudes and sexist jokes predict self-reported rape inclination in males (Thomae & Viki 2013). This suggests that males amused by sexist jokes are more likely to commit a sexual assault. That being the case, men who have a high level of PMB are more prone to experience masculinity threat, which brings them anxiety and engage in unethical behaviors such as committing sexist jokes; that is one of their defense mechanisms to reduce anxiety and restore their threatened masculinity. According to Thomae (2015), in support, men utter sexist jokes because it strengthens male in-group cohesiveness. As a result, the concept of disparaging humor can be regarded as a way to release prejudice of women (since femininity threatens masculinity) in a disguised form. Disparagement of the out-group establishes the male in-group's uniqueness and positivity towards themselves but may weaken the female out-group by compromising women's social identity. Additionally, Kroeper et al. (2014) reported that males who scored higher on the PMB scale were more tolerant of prejudice against homosexual men and less motivated to intervene on their behalf. Males with greater levels of PMB or a greater masculine identity tend to discriminate against homosexual men to prevent the threat to their masculinity that comes with being misidentified as gay (Kroeper et al., 2014; Weaver & Vescio 2015). Lastly, according to a study done by Connor (2017), males with higher PMB levels enjoy sexist and anti-gay jokes because they feel it validates and reaffirms their masculinity. According to the findings, men with greater levels of PMB found sexist jokes to be more amusing than neutral jokes after being threatened with masculinity. PMB was seen as a significant factor in this study that correlates to enjoyment with sexist jokes. Also, according to the findings of this research, men may engage in sexist comedy as a technique to reestablish their threatened masculinity. Unlike other ways such as overt hostility or explicit demonstrations of prejudice, Mallett et al. (2016) claim that amusement with sexist jokes shields one from perceived sexism prejudice because it is masked behind the guise of "It's just a joke." As a result, delivering sexist jokes can be a safe method and option for males to reclaim their threatened masculinity anytime women threaten them.

Table 5 *Moderation Analysis with Level of Amusement as Dependent Variable*

Variables	B	S.E.	t	p	95%	CI
					Lower bound	*Upper bound*

	B	S.E.	t	p		
(Constant)	4.47	.50	8.90	.00	3.48	5.46
Precarious Manhood Beliefs	.21	.11	1.87	.06	-.01	.44
Masculinity Threat	-1.39	.32	-4.32	.00	-2.03	-.76
Interaction (PMB x MT)	.38	.07	5.48	.00	.24	.51

Model: $R^2 = 0.24$; $p < 0.05$

B – unstandardized coefficient; S.E. – standard error
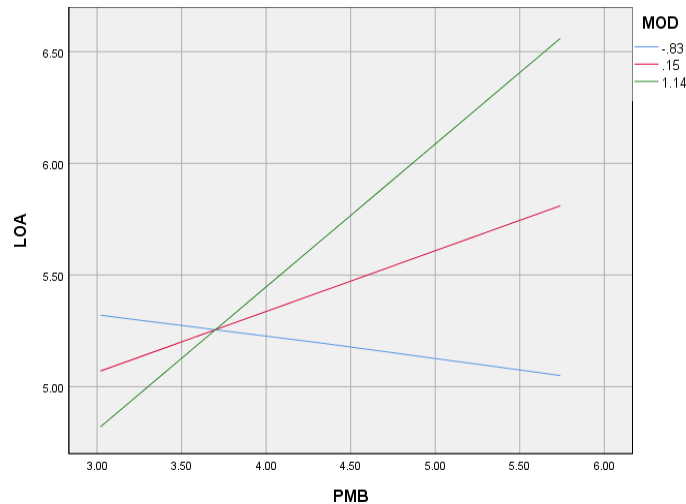

Figure 2 *Scatterplot of the Moderation Model*

The study explores the moderating effect of masculinity threat between the relationship of Precarious Manhood Belief and Level of Amusement on Sexist Jokes. Findings suggest that the relationship between PMB and LOA is not statistically significant. The regression weight for PMB in the prediction of LOA is not significantly different from zero at the 0.05 level. PMB did not significantly predict the level of amusement on sexist jokes, B = .21, SE = .11, t = 1.87, p = .06, 95% CI = [-.01, .44]. On the other hand, results showed that the relationship between MT and LOA is statistically significant. The regression weight for MT in the prediction of LOA is significantly different from zero at 0.05. MT significantly predicts the level of amusement on sexist jokes, B = -1.39, SE = .32, t = -4.32, p = .00, 95% CI = [-2.03, -.76]. The negative B
(unstandardized beta) means that for every 1 unit of increase in MT, LOA decreases by .946 units. However, if this will be plotted in a scatterplot, in that case, data will suggest in Figure 1 that there will be a positive correlation if the MT is on its average value, particularly in .15 units, and a negative correlation if the value is lower than -.83. Likewise, the relationship between the Interaction of Precarious Manhood Belief and Masculinity Threat with the Level of Amusement on Sexist Jokes is statistically significant. The regression weight for Interaction in the prediction of LOA is significantly different from zero at 0.05 level. The Interaction does significantly predict the level of amusement on sexist jokes, B = .38, SE = .07, t = 5.48, p = .00, 95% CI = [.24, .51]. The positive B (unstandardized beta) means that for every 1 unit of increase in the interaction, the level of amusement in sexist jokes increases by .38 units. Lastly, findings suggest that MT moderates the relationship between PMB and LOA (R2=.24, p<0.05). The addition of the interaction change explains a 24% increase in variation, and the increase caused by the interaction change is statistically significant.

These results provide adequate support for the study's hypothesis: MT moderates the relationship between PMB and LOA. However, significant findings are observed such as how PMB was not statistically significant in predicting LOA and the negative relationship direction between MT and LOA. Essentially, the moderating effect of MT on the relationship of PMB and LOA was also discussed. With this, proponents of the study draw several interpretations to consider the results provided on the table.

First, Precarious Manhood Beliefs did not significantly predict a heterosexual male's level of amusement in sexist jokes for several reasons considering the study's limitations. First, a statistically significant value was not obtained from the results simply because there is a possibility that the sample size is not enough to represent the whole population. Therefore, there is insufficient evidence to conclude that PMB predicts LOA due to the small sample size. Second, the scales used to measure the PMB and LOA are adopted from the West, meaning the referenced criterion group is also Westerners. Since the scales are intended to measure factors in Western people, this might affect the reliability and validity of the results since the participants of this research are Filipinos. Third, the language may serve as a barrier for Filipino participants to understand the context of the scales' ideas fully. For example, statements in PMB Scale express the same context wherein manhood is elusive, tenuous, and requires public evidence. However, participants tend to disagree on some statements while agreeing on other ideas, which almost mean the same. Thus, these nuances can be explained by the participants' misunderstanding of the statements' message brought by the language used. Also, the language used is an essential factor in the participants' amusement at sexist jokes. Researchers of this study think that respondents can better express their amusement if jokes used are in a Filipino language and a local context. Nonetheless, whether PMB is significant or not in predicting LOA, it doesn't affect the model on a great scale, particularly if MT will moderate their relationship with LOA. Considering the concept of moderation, an insignificant relationship between independent and dependent variables can become significant if the moderator is added. This means that there is already an underlying relationship between PMB and LOA but adding MT in their interaction strengthens the relationship between the independent and dependent variables.

Second, it is essential to note that researchers elicited the masculinity threat in this study by giving the threat condition false feedback, telling them they have a feminine personality type. The study hypothesizes a positive correlation between MT and LOA, which means that if someone experiences being associated with feminine traits, he is more likely to be amused by sexist jokes. However, findings reported that this is not the case most of the time. Based on table 4, there is a negative correlation between MT and LOA, which won't make sense at first glance. However, there is a positive correlation between MT and LOA in specific values if the scatterplot is considered. Figure 1 suggests that a negative direction is observed if MT is low, -.83. This means that even if there is a low masculinity threat, heterosexual males still tend to laugh at sexist jokes. However, if there is an average value of MT, .15, heterosexual males are more likely to find the sexist jokes amusing. In the same way, if there is a high level of MT, 1.14, males are more likely to laugh at these jokes than when there is just a low level of MT. These findings make sense because when males' masculinity is threatened, they will find ways to restore and reaffirm their manhood – by laughing more at sexist jokes. If heterosexual male experience being associated with females, they are likely to experience anxiety brought by their threatened masculinity. Being perceived by society as feminine, they will experience pressure and anxious feelings, which will force them to display behaviors proving they are masculine. To prove their manhood, they will stay away from femininity – in this case, participants who experienced masculinity threats are more likely to be amused by sexist jokes. By laughing at sexist jokes, they can establish themselves as masculine beings and restore their threatened masculinity while distancing themselves from femininity as this kind of humor degrades women. Therefore, engaging and tolerating sexist jokes serve as a defense mechanism for heterosexual males who experience masculinity threats. They implicitly express prejudice against women through sexist humor while reaffirming their manhood. Also, compared to the non-threat condition, participants under the threat condition have a higher level of amusement on sexist jokes, which can be inferred as a function of masculinity threat.

Lastly, the third variable, masculinity threat, did moderate the relationship between Precarious Manhood belief and Level of Amusement on sexist jokes. The findings suggest that the masculinity threat influenced the strength of the relationship between the independent and dependent variables. In addition, based on the r-change, there is a 24% increase in variation when interaction was added in the model, which is considered statistically significant. However, there are some points to consider concerning the Masculinity Threat. Based on Figure 1, a negative correlation can be observed when there is just a low level of MT on the relationship of PMB and LOA. However, if there is an average and high level of MT in the model, heterosexual males are more likely to have higher LOA – now, a positive correlation. In general, this assumption makes sense because heterosexual males who have high levels of PMB are more susceptible to threats of masculinity and are therefore, more likely to respond in a higher level of amusement to sexist jokes. If men are told they are feminine, their masculinity is

shaken, and then they experience anxious feelings, which is one of the assumptions of Precarious Manhood Theory. The anxiety felt by the men brought by masculinity will force them to behave in all possible ways just to restore their ego as men. Fortunately, sexist humor is an accessible means for them degrading women because the disparagement is outside the scope of moral criticism since humor signals that its content should be perceived in a humorous rather than serious manner. Therefore, men can disguise their prejudice toward women behind the phrase "it's just a joke" while restoring their threatened masculinity at the same time. The more threatened men are, the more they laugh at sexist jokes to prove their manhood.

Statistical Treatment

This study used three statistical treatments namely Independent Sample T-test, Pearson's Correlation, and Moderation Analysis through Process by Hayes to identify the effect of masculinity threat (moderator variable) between PMB (independent variable) and level of amusement on sexist jokes (dependent variable).

Independent sample t-test or two-sample t-test was utilized in this study to identify if there is a significant difference on the level of PMB and LOA in sexist jokes of participants under the threat and non-threat condition. Since the variables in this study are both continuous (PMB and LOA), this statistical treatment helped the researchers decide if the means for two different groups (threat and non-threat) were equal or not.

Pearson Product Moment Correlation (PPMC) or Pearson's R was used to see whether there is a significant relationship between PMB and level of amusement on sexist. According to Connor (2017), this is the appropriate test statistic to assess the relationship between PMB and level of amusement because both factors are continuous variables. If Pearson's r is positive, it implies a positive relationship between the two variables, implying that if one variable increases, the other will increase. If Pearson's r is negative, however, the two variables have a negative relationship which suggests that if one variable decreases, the other will increase. Furthermore, the absolute value of the correlation coefficient indicates the strength of the relationship: values near 1 indicate perfect correlation, values between 0.50 and 1 show a strong correlation, which is not recommended because it could imply that the two variables are nearly identical, values between 0.30 and 0.49 indicate medium correlation, values below 0.29 show small correlation and 0 indicates no correlation.

Researchers employed the moderation analysis after using PPMC using IBM SPSS 24 with Process by Hayes. Since the researchers wanted to see if Masculinity Threat influenced the relationship between PMB and level of amusement on sexist jokes, there will be moderation because the correlation between two variables is dependent on a third variable (Connor, 2017). Therefore, moderation analysis helped determine the relationship of PMB (IV) and level of amusement in sexist jokes (DV) that is moderated by threat (MV) or the strength of the relationship between IV and DV that MV can predict.

Acknowledgement

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Forgiveness: Easy to Say but Hard to Do

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Abstract

Forgiveness is a reduced desire to avoid the person who has hurt us, and a reduced desire to hurt or take revenge against the individual and is accompanied by increased compassion and desire to act positively towards the person who hurt us. The purpose of this study is to describe forgiveness as a form of action that is easy to say but becomes a difficult thing to do. The writing of this research uses library research or library research. In this study the researcher collected from journal articles, books and news related to forgiveness. The results of several studies obtained explain that forgiveness is something that is easy to say but becomes a very difficult thing to do. There are various factors that can influence forgiveness. The following are factors that influence the first apology, Cognitive Social Variables. Second, Attack Characteristics. Third, the Quality of Interpersonal Relations. Fourth, Personality Factor. One of the most effective ways to forgive is to develop empathy and forget the painful past.

Keywords: *Forgiveness, library research*

Introduction Section

No human being is perfect, who is free from mistakes. In responding to mistakes, some individuals are quick to understand it, the pressure that individuals suggest is due to the mistakes made. Feelings of self-condemnation may be carried out by individuals to overcome experiences related to regretting mistakes that have been made. Regret for a mistake can sometimes make individuals isolate themselves from others or even endanger themselves.

The concept of self-forgiveness began to become a concern when researchers found that there were individuals who felt they were the most difficult person to forgive, themselves (Woodyatt, Worthington, Wenzel, & Griffin, 2017). Forgiveness has a big impact on a person's psyche, in a friendship relationship sorry makes attachments become attachments again. The negative experiences experienced by a child in a friendship will cause trauma that is difficult to remove if there is no forgiveness intervention. The source of the violation and the object of forgiveness can refer to oneself, other people, or many people, or situations that people judge to exceed their controllability limits (such as disease, "fate", or natural disasters).

Forgiveness is a form of therapy for overcoming various psychological problems, the dynamics that occur when individuals forgive, they will be able to release feelings of pain, anger, disappointment, or other negative emotions, on the one hand developing positive emotions in themselves (Subandi, 2010). Praptomo Jati, Zuanny, Daningratri, 2022).

Studies on forgiveness have indeed been carried out by many previous researchers, including various approaches and different variables. Therefore, the researcher wants to discuss how easy it is to say sorry but it becomes a very difficult thing to do.

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Method

In this study, the researcher collected journal articles, books, and news related to forgiveness. The journal search reference used is Google Scholar and news searches using the Google web browser. In the article search, there were 12 relevant articles and an in-depth reading was carried out by the researcher for the review process. These three types of references will contain the results of research topics related to the theme that will be raised by the author. These references will be studied carefully to obtain information and explanations regarding what forgiveness is, and how forgiveness becomes easy to say but difficult to do.

Results and Discussion

Theoretical Concept of Forgiveness

The concept of self-forgiveness began to emerge in the early to mid-1990s. Early research on self-forgiveness conducted by Enright (1996) described a triad or three aspects of forgiveness including: (1) interventions to help people forgive others, (2) accepting forgiveness from others, and (3) forgiving oneself. In 1997, the John Templeton Foundation marked a Request for Proposals (RFP) on forgiveness that involved scientists with research on forgiveness aspects. Most studies say self-forgiveness tends to be cross-sectional. However, self-forgiveness is a change process that is difficult to capture empirically because it unfolds in different time frames and different ways for different individuals (Woodyatt, 2017).

According to McCollough (Alawiyah, 2020) an expert on the psychology of forgiveness, forgiveness is a reduced desire to avoid people who have hurt us, and a reduced desire to hurt or take revenge against the individual and is accompanied by increased compassion and desire to act positively toward the hurting person. McCollough et al revealed that forgiveness is a set of motivations to change a person not to take revenge and reduce the drive for hatred towards the offending party, maintain hatred for the offending party and increase the drive for conciliation of the relationship with the offending party (McCollough & Whorthinton et al, 1997).

Enright et al. (in Schimmel, 2002) see forgiveness as a form of readiness to give up one's right to belittle, blame and take revenge on the perpetrator who has acted wrongly against him, and at the same time develop compassion, generosity, even love for him. Meanwhile, Nashori (2008) explains that forgiveness is the process of removing wounds or scars in the heart. Although sometimes the memory of the sad event in the past still exists and often appears, the perception of the painful event has been erased.

Four factors influence a person to forgive (McCollough, Pargament & Thoresen, 2000), namely:
1. Cognitive Social Variables
Forgiving behavior is influenced by the victim's assessment of the perpetrator, the victim's assessment of the incident, the severity of the incident, and the desire to stay away from the perpetrator. This thing that then affects the behavior of forgiveness is Rumination About the Transgression, namely the tendency to continuously remember events that can cause anger, thus preventing him from creating forgiving behavior.
2. Attack Characteristics
A person will find it more difficult to forgive events that are considered important and also meaningful in his life. For example, someone will find it harder to forgive her husband's infidelity compared to the behavior of other people who skipped the queue. Girard & Mullet, Ohbuchi, Kameda & Agarie (in McCullogh, Pargament & Thoresen, 2000) explain that the more important and meaningful an event is, the more difficult it will be for someone to forgive.
3. Quality of Interpersonal Relations
Another factor that influences behavior in forgiveness is the closeness or relationship of the person who was hurt by the perpetrator. Research has shown that couples tend to forgive their partner's behavior if there is satisfaction in marriage, closeness to each other, and a strong commitment (Roloff & Janiszewski, in McCollogh Pargament & Thoresen, 2000). In addition, there are three forms of relationships related to the giving of forgiveness. First, during the marriage period, there is an experience or history that is passed together where partners share feelings and thoughts so that when one of them makes a mistake, the partner will be able to forgive by empathizing with the mistakes made by his partner. Both partners' ability to interpret that painful

events happened for their good. Third, the partner who made a mistake will apologize by showing a deep sense of regret, so that the partner will try to forgive.

4. Personality Factor

Mauger, Saxon, Hamill & Panell (McCollogh Pargament & Thoresen, 2000) explain that forgiving behavior is included in the Agreeableness factor in the Big Five. McCollough, Pargament, and Thoresen (2000) added that empathy is one of the factors that facilitate the occurrence of forgiveness factors in people who have been hurt. According to Enright & Coyle (in Witvliet, Ludwig & Laan, 2001) empathy is the ability to understand and see other people's points of view that are different from one's point of view and try to understand what factors are behind one's behavior.

While there are several types of forgiveness that someone does before apologizing to someone who has hurt or has made a mistake, this type of forgiveness or forgiveness proposed by Enright, Santos, and Al-Mabuk (Lijo, 2018) is as follows:

a. Forgiveness Revenge is forgiveness that is done after taking revenge.
b. Restitution Forgiveness is forgiveness to remove guilt after restoring the relationship.
c. Extraordinary Forgiveness is forgiveness that is done under social pressure.
d. Legitimate Extraordinary Forgiveness is forgiveness that is given after considering moral character or authority.
e. Forgiveness for Social Harmony is forgiveness given to reduce social harmony and peace that has been established.
f. Forgiveness as a form of action and expression of unconditional love.

Enright (2001) added that the process of forgiving itself includes four stages, namely:

a. *Uncovering Phase,* is a phase where the re-opening of moments when experiencing painful and repeated events appear in his mind.
b. *Decision to Forgive Phase,* This is the deciding phase in which the individual will gain insight into the importance of forgiveness.
c. *Work Phase is* a time of empathy where individuals will begin to take on a role by interpreting the painful events experienced by positioning themselves who have hurt and will begin to accept the wounds that have been experienced.
d. *Deepening Phase,* is a phase where individuals will feel the benefits of forgiveness and new meaning in building relationships.

Journal Review Characteristict

No	Tahun	Judul	Penulis	Subjek
1	2019	Efektivitas cognitive behavior therapy (CBT) terhadap peningkatan pemaafan narapidana yang akan bebas.	Adzibah, U.	12 Inmates stage 4
2	2021	Hubungan antara Pemaafan dan Psychological Well-Being pada Korban Kekerasan dalam Rumah Tangga.	Angela, M., Felicia Felicia, &Febriani Cipta.	100 women victims of domestic violence
3	2008	Pemaafan:A Sampling of Research Results. *Coference United Nations Headquarters Midday Workshops,* Pemaafan*: Partneringwith the Enemy. Reprinted.*	APA's Team at the United Nations	
4	2020	Pengaruh Empati Terhadap Pemaafan dan Percaya Diri Dalam Hubungan Pertemanan	Nadya Alawwiyah	Student

No	Tahun	Judul	Penulis	Sampel
5	2019	Pemaafan Pada Individu yang Mengalami Perselingkuhan dalam Pernikahan	Maya Khairani, Dian Purnama Sari	60 husbands and wives who experienced infidelity (30 men, 30 women)
6	2020	Pengembangan Skala Pemaafan Diri (*Self-Forgiveness*)	Dyah Ayu Larasati, Tria Widyastuti	102 Student
7	2017	Hubungan Komunikasi Interpersonal dan Pemaafan dengan Kebahagiaan Suami Istri	Nurhayati	200 husband and wife
8	2016	Empati dan Pemaafan Pada Mahasiswa Fakultas Psikologi UIN Suska Riau	Dwi Indra Lestari, Ivan Muhammad Agung	309 Undergraduate students from the Faculty of Psychology (47 males, 262 females)
9	2016	Pemaafan Pada Santriwati Etnis Sunda	Anis Nurlaela, Elis Anisah	181 Sundanese ethnic student
10	2022	Peningkatan Kesejahteraan Psikologis Narapidana Wanita Melalui Terapi Pemaafan	Subandi, Ardian Praptomojati, Iyulen Pebry Zuanny, Deisi Daningrati	7 female prisoners
11	2018	Efektivitas Terapi Pemaafan dengan Model Proses dari *Enright* untuk Membantu Remaja Korban Perceraian dalam Memaafkan Orang Tua	Kristina Martha, Ni Made Taganing Kurniati	A 20-year-old girl who is the victim of a divorce from her parents
12	2022	Terapi Pemaafan untuk Menurunkan Tingkat Kecemasan Remaja Korban Kekerasan	Sherli Kurnia Oktaviana	22 subjects Teenagers aged 15 – 18 years and had

				experiences of violence within 2-3 months

According to the opinion of experts such as Miller, Worthington, and McDaniel (Khairani and Sari, 2019), a woman tends to forgive more easily than men with several things that encourage the forgiveness process such as the forgiveness process, individual traits, and the situation where something happens. error. As stated by Hall and Frenchman in (Larasati and Widyastuti, 2020) realizing mistakes and accepting responsibility starts feelings of guilt and regret which then leads to self-forgiveness. Self-forgiveness grows when a person begins to be honest in dealing with and grappling with one's own mistakes.

Cornish and Wade (Larasati and Widyastuti, 2020) reveal that there are four components in the process of self-forgiveness, namely: Responsibility, which means that to achieve self-forgiveness, someone is also responsible for his actions. Remorse (regret) as a response to responsibility, individuals often experience various kinds of emotions such as shame that must be reduced. Restoration is an action-oriented step that follows responsibility and regret. Renewal (Renewal), is when a person finally gets an emotional state of self-forgiveness that involves compassion, acceptance, and self-respect.

While there are several types of forgiveness or forgiveness that a person does before apologizing to someone who has hurt or has made a mistake, this type of forgiveness or forgiveness proposed by Enright, Santos, and Al-Mabuk (Lijo, 2018) is as follows:

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e. Forgiveness for Social Harmony is forgiveness given to reduce social harmony and peace that has been established.
f. Forgiveness as a form of action and expression of unconditional love.

In forgiving ideally negative attitudes and feelings must be replaced with positive attitudes and feelings. But in reality, this is not easy to do, let alone quickly. There are always psychological problems between two parties who have experienced a broken relationship due to a mistake. Adult forgiveness does not erase all negative feelings but becomes a balance of feelings (Nurhayati, 2017).

Various things influence a person in the process of forgiveness, one of which is empathy as stated by McCollough (2000) and Worthington (1998) in their writings, that empathy is a determinant of the ability to forgive. Enright, Freedman, and Rique (1998) state that empathy is a factor in the working phase of the forgiveness process. Empathy is a person's ability to understand the feelings and emotions of others and the ability to imagine oneself in another's place (Lestari and Agung, 2016).

From some of the explanations above, it can be concluded that several things are factors for the formation of forgiveness, the first is that there is empathy in the victim towards the perpetrator, and the second is socio-cognitive where a perpetrator has regretted what has been his mistake, the third level of violation that has been committed by the perpetrator against the victim, fourth the personality characteristics of the victim who have an introverted or extroverted character, and the last is the quality of the relationship that has been established between the perpetrator and the victim.

Many people also say sorry just as a greeting and then forget without further understanding the meaning of forgiveness. As a result, feelings of disappointment and even regret arise after forgiving because the same person repeats the mistake. It is easy for people to apologize and give forgiveness without being accompanied by wholehearted acceptance, not just lip service as if it is something natural and even habitual (Nurlaela and Anisah, 2016).

Forgiveness is a difficult thing for people who have been hurt by a problem. Many things can affect the process of forgiveness, one of which is Empathy which is a determinant in the process of forgiveness, where

empathy is a person's ability to understand the feelings and emotions of others and the ability to imagine oneself in someone else's place. Forgiveness sometimes only happens in the mouth, but in the heart, there is still pain. For that in the process of forgiveness, it is important to be able to forget or leave the past and try to only look to the future.

Conclusion

From the results of the literature review that the author did, some conclusions can be explained as follows:

1. Forgiveness is a process of erasing wounds in the heart, although sometimes memories of painful past events still exist and often appear, the perception of the painful event has been erased. Forgiveness is easy to say but very difficult to do. Forgiveness is a form of one's readiness to let go of heartache and develop it into generosity and compassion.

2. Various factors can influence forgiveness. The following are factors that influence forgiveness. Cognitive Social Variables, Attack Characteristics, Quality of Interpersonal Relationships, and Personality Factors are several factors that can encourage forgiveness. The type of forgiveness itself consists of several forgiving things including Revenge Forgiveness, Restitution Forgiveness, Extraordinary Forgiveness, Legitimate Extraordinary Forgiveness, Forgiveness for Social Harmony, Forgiveness as a form of action, and expression of unconditional love. In the forgiveness process, there are four stages, namely the Uncovering Phase, the Decision to Forgive Phase, Work Phase, and Deepening Phase.

3. The types of Forgiveness are as follows:
   - Forgiveness of Revenge
   - Restitution Forgiveness
   - Incredible Forgiveness
   - Legitimate Extraordinary Forgiveness
   - Forgiveness for Social Harmony
   - Forgiveness as a form of action and expression of unconditional love.

4. The solution to be able to provide forgiveness is to develop empathy and forget the painful past and try to only look to the future. Erase all perceptions of the painful incident, let go of all the pain and develop it into generosity and compassion.

5. Recommendation

6. From several other research results, it was found that there are still many people who say sorry only as words which then without further interpreting the meaning of forgiveness itself. It is easy for people to apologize and forgive without being accompanied by wholehearted acceptance. In forgiveness, the ideal is to replace negative attitudes and feelings with positive attitudes, but in reality, this is not done. Forgiveness does not erase all negative feelings but replaces them with positive feelings. Many things can affect a person in the forgiveness process, one of which is empathy. Empathy is a person's ability to understand the feelings and emotions of others and the ability to imagine oneself when in someone else's shoes. Empathy has a major role in shaping human behavior and appears at the age of two or three years. One example of a sign of empathy in babies is that babies will cry when they hear another baby cry or see their mother cry. From the explanation above, it can be concluded that there is a relationship between empathy and forgiveness, where empathy can affect someone in giving forgiveness.

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The Relationship of Self-Concept with and Family Support Student's Learning Motivation in Online Learning

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Abstract

Use of online media is one solution so that teaching and learning activities between teachers and students can continue to be carried out, although in its implementation online media are not uncommon problems. The decision to switch to online learning media will affect the conducive interaction between teachers and students, if the method used is not suitable it will make students less interested and bored, the impact is that students become lazy, passive, and less interested in learning. The purpose of this study was to determine the relationship between self-concept and family support on students' learning motivation. The research hypotheses are: (1) there is a relationship between self-concept and family support with learning motivation, (2) there is a positive relationship between self-concept and learning motivation, (3) there is a positive relationship between family support and learning motivation. This research uses correlational quantitative methods. The research population was students of SMP 1 Muhammadiyah Surakarta. A sample of 100 students was determined by purposive sampling. The data collection tool uses the Learning Motivation Scale, the Self-Concept Scale, and the Family Support Scale. The data analysis technique used multiple linear regression. The results of multiple regression analysis get the results (F) = 134.999 with a sig.p < 0.01, value (r) = 0.847 (r > 0), with a value of Sig. (1-tailed) p < 0.01, and the value (r) = 0.652 (r > 0), with a value of Sig. (1-tailed) p <0.01.indicates that there is a very significant positive relationship between self-concept and family support with learning motivation, shows a very significant positive relationship between self-concept and learning motivation, and shows a very significant positive relationship between family support and learning motivation.

Keywords: family support, learning motivation, self-concept

Introduction Section

The Indonesian Government has implemented various policies to mitigate the spread of Covid-19, such as the Large-Scale Social Restrictions (PSBB) that are applied in various regions with high levels of Covid-19 spread as an effort to slow down the spread of Covid-19. This is also related to the ongoing teaching and learning activities that are conducted from each individual's home rather than in formal school environments.

Based on the circular of the Ministry of Education and Culture number 15 of 2020 regarding guidelines for learning implementation from home during the Covid-19 spread emergency, the goal of the implementation of learning from home (BDR) is to ensure that the rights of students are fulfilled to receive education services during the Covid-19 emergency, protect educational unit residents from the adverse effects of Covid-19, prevent the spread and transmission of Covid-19 in educational units, and ensure the fulfillment of psychosocial support for educators, students, and parents (Ministry of Education and Culture, 2020). The use of online media has become one of the solutions to ensure that teaching and learning activities between teachers and students can still take place, although there are often problems encountered during the implementation of online media, such as difficulty in accessing the internet, incomplete material provided by teachers that has already moved to another topic, costs for internet data packages, and other challenges faced by teachers, students, and parents during the online learning process

The researcher conducted an initial survey of 79 students from the Al-Kautsar Kartsura Muhammadiyah Special Program Junior High School, regarding the difficulties and obstacles experienced during online learning amid the COVID-19 pandemic. The results showed that 26 students reported difficulty in understanding the

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material presented through online media, 24 students reported technical issues such as internet connection, internet quota, and gadget operation, 15 students reported difficulty in concentrating while studying, 3 students felt they needed parental guidance, and 7 students did not experience any difficulties during the online learning process.

The decision to switch to online learning media will affect the conducive interaction between teachers and students, if the method used is less appropriate, it will make students less interested and bored, resulting in students becoming lazy, passive, and less interested in learning (Saragih, Silitonga, Sinaga, & Mislika, 2The results of a survey conducted by researchers regarding the level of interest in learning during online learning among 76 students of SMP PK Muhammadiyah Al-Kaustar Kartosura showed that there were 6 students who had no interest, 32 students who had low interest, 31 students who had moderate interest, and 7 students who had high interest. One of the factors of learning motivation is student interest in learning (Lukita & Sudibjo, 2021). Low student interest in learning can have an impact on decreasing student learning motivation.021).

According to Nurfallah & Pradipta's (2021) research entitled "Mathematics Learning Motivation of Middle School Students during Online Learning in the COVID-19 Pandemic", online learning has helped to keep students healthy during the pandemic, but the online learning environment is still not as effective as face-to-face learning due to various challenges that may lead to decreased student motivation. The study involved 415 middle school students in Bekasi city, with the results showing that 13% of students had high motivation, 70% had moderate motivation, and 17% had low motivation.

The encouragement and motivation from parents as the primary educators in the family have a significant impact on the success of children's learning.In a study conducted by Emerelda and Kristiana (2017), it was shown that there is a positive relationship between parental social support and student learning motivation. This indicates that the higher the level of parental support, the higher the student's learning motivation." This research finding is supported by Lukita and Sudibjo's (2021) study on "Factors That Influence Student Learning Motivation in the COVID-19 Pandemic Era", which concluded that family support is the most influential variable on learning motivation.

Encouragement, support, advice, and guidance given during difficult times to individuals or groups with direct family ties such as parents, children, and siblings, are considered as family support (Mirza, 2017). Another factor that affects learning motivation besides family support is self-concept (Djaali, 2008). This is evidenced by research conducted by Sinarsi (2020) on 70 junior high school students from Panca Abdi Bangsaku Stabat, Lankat Regency, North Sumatra, which showed a significant positive correlation between self-concept and learning motivation. The higher the self-concept, the higher the learning motivation of the students. Thus, a good self-concept and family support are essential to maintain high learning motivation in students. Good learning motivation can have a positive impact on students' learning outcomes and academic achievements.

Learning motivation is a process of providing direction and inspiration that leads to changes in behavior and a determined attitude in students who are learning, caused by internal and external factors. Behavior that has motivation will be directed, persistent, full of energy, and become a driving force for the continuity of learning activities so that individual goals can be achieved (Santrock, 2007; Uno, 2017; Sardiman, 2018).

There are six aspects of learning motivation proposed by Santrock (2014), namely: (1) Self-determination, which is an individual's ability to determine their goals related to what they want to do or the goals they have achieved; (2) Interest, which is an individual's tendency to know and master a potential within themselves; (3) Experience and optimal flow, which is the opportunity to obtain what the individual is looking for while adjusting to the individual's abilities; (4) Cognitive involvement and self-responsibility, are efforts based on an individual's skills to achieve something according to the individual's expectations; (5) Punishment, the risk an individual will face if they do not perform a task; (6) Reward, a form of recognition that can encourage individuals to perform a task or activity. There are six aspects of learning motivation according to Uno (2008), namely; (1) Interest and desire to engage in activities, which is the desire to succeed in learning and daily life, generally referred to as achievement motivation; (2) Drive and need to engage in activities, a student's success caused by external pressure or stimulation, such as failure experienced by students; (3) Expectations and aspirations, an individual's beliefs influenced by their feelings about the outcome of their actions; (4) Self-appreciation, verbal statements or other forms of recognition for good behavior or good student learning outcomes; (5) Supportive environment, a conducive learning environment is one of the driving factors for students to learn; (6) Engaging

activities. An engaging atmosphere makes the learning process meaningful. There are three aspects according to Sadirman (2018): (1) Stimulating learning activities; (2) Ensuring the continuity of learning; (3) Directing learning activities.

According to Djaali (2008), there are four factors that influence learning motivation: (1) Attitude, emotional readiness and taking appropriate action in certain situations; (2) Interest, a sense of attraction to an activity without being influenced by others. It is known that if students have high learning interest, then their learning motivation will also be high, but if students have low learning interest, then their learning motivation will also be low (Lukita & Sudibjo, 2021); (3) Learning habits, regular and continuous learning activities; (4) Self-concept, a person's view of themselves, involving what is known and felt.

Self-concept or self-image refers to an individual's beliefs, feelings, evaluations, and judgments about themselves, including aspects related to their psychological, emotional, social, and academic dimensions. Various researchers such as Deaux, Dane, & Wrightsman (1993), Chaplin (2004), and Hurlock (1996) have discussed the concept of self-concept.

Hurlock (2013) proposed that there are two aspects of self-concept, namely: (1) Physical self-concept, which is usually related to physical appearance, attractiveness, body parts, and conformity or nonconformity with gender, as perceived by others; (2) Psychological self-concept, based on feelings, thoughts, and emotions, consisting of the quality of an individual's ability to adapt to life, and personal traits such as courage, honesty, and independence.

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There are two aspects of self-concept according to Hurlock (2013), namely; (1) Physical image, which is usually related to physical appearance, attractiveness, body parts, and conformity or nonconformity with one's gender in how they appear to others; (2) Psychological image, based on feelings, thoughts, and emotions, this image consists of the quality of a person's ability to adapt to life, and personal traits such as courage, honesty, and independence.

Family support refers to the presence of family members in providing instrumental, moral, informative, emotional, and evaluative support to other family members so that they can help and meet each other's needs (Featherstone, 2003; Setiadi, 2008; Dolan Canavan, Pinkerton, 2006).

There are four aspects of family support, namely: (1) Emotional Support, where family members show love, care, and attention to their children; (2) Appreciation Support, in the form of positive reinforcement, which provides motivation to move forward and increases children's self-confidence; (3) Concrete/Instrumental Support, in the form of providing necessary facilities, such as material needs, education, and communication; (4) Advice or Informative Support, in the form of warnings, suggestions, or input from family members who have relevant experiences. According to Bandura (1986), individuals who are given advice, guidance, and support are better able to improve their abilities and achieve their goals, thus encouraging them to show their best performance (Friedman, 2010; Dolan Canavan, Pinkerton, 2006). Aspects of family support according to Tucker & Rice (1986) include: (1) Expressive Support, where the family is present to fulfill the emotional needs and development of family members, such as teaching love and affection, religion (morality), and protection; (2) Instrumental Support, where the family is present to fulfill the primary and secondary needs of family members, such as clothing, food, shelter, and education. Factors that influence family support are divided into two parts: Internal Factors, which include developmental stage, education, emotions, and spirituality; External Factors, which include relationships within the family, social, economic, and cultural backgrounds (Setiadi, 2008)

Motivation can be defined as the drive that causes someone to want to do something that they may not have wanted to do otherwise, by attempting to eliminate any negative feelings associated with it (Amna, 2017). The same can be said for learning activities, where having a motivation to learn will help to overcome any barriers to learning that a student may face. Learning motivation can also encourage students to engage in various academic activities, which is important because cognitive processes are more likely to be utilized by students who are motivated, and motivation can be influenced by various factors (Filgona, J, Gwani, & Okoronka, 2020).

Self-concept is an individual's understanding of themselves that arises from their interactions with others (Widiarti, 2017). Self-concept is also related to how individuals see themselves, feel about themselves, and how they become the person they hope to be (Hidayati & Farid, 2016). According to Alli (2018), self-concept is divided into academic self-concept, which relates to achievement, and non-academic self-concept, which relates to social, emotional, and physical aspects.

Family support enables students to understand their obligations as students in pursuing education in school. Family support is one of the factors that affect student learning motivation, as evidenced by a study conducted on 80 students from SMP Negri 11 in Pasuruan city, which concluded that family support has a positive correlation with learning motivation (Prasetyo & Rahmasari, 2016). Self-concept has a significant influence on student educational success, as it can serve as an evaluation and goal for oneself. The importance of self-concept for student learning motivation is supported by a study conducted by Saragi, Iswari, and Mudjiran (2016) on 215 students from SMAN 8 in Padang, which showed that self-concept contributes to learning motivation with a correlation coefficient of 0.492, indicating that learning motivation is also determined by the student's own self-concept.

Based on the above description, the research problem can be formulated as follows: "Is there a relationship between self-concept and family support on students' learning motivation, particularly for students of SMP 1 Muhammadiyah Surakarta during distance learning in the COVID-19 pandemic?"; "Is there a relationship between self-concept and learning motivation?"; "Is there a relationship between family support and learning motivation?". The purpose of this research is to determine the relationship between self-concept and family support on students' learning motivation during distance learning in the COVID-19 pandemic, particularly for students of SMP 1 Muhammadiyah Surakarta. The benefits that can be obtained from this research consist of two things; 1. The practical benefit of this research can improve the learning motivation of students of SMP 1 Muhammadiyah Surakarta in facing and responding to distance learning conditions during the pandemic. In addition, the researcher hopes that this research can be a reference for further researchers who will study the theme of learning motivation, self-concept, and family support. 2. The theoretical benefit of this research is expected to bring benefits to increase insight and knowledge about learning motivation, self-concept, and family support. The hypotheses of this research are: (1) there is a relationship between self-concept and family support with students' learning motivation; (2) there is a positive relationship between family support and students' learning motivation; (3) there is a positive relationship between self-concept and students' learning motivation.

Method

This study uses two independent variables, namely family support and self-concept, and one dependent variable, namely learning motivation. The research method used in this study is quantitative correlational research.
Learning motivation is the process of giving encouragement and direction to individuals to generate persistent behavior in student learning activities so that learning behavior becomes more directed, energetic, and sustainable, thereby achieving the goals of learning activities. Learning motivation can be measured using a Learning Motivation Scale based on the aspects of learning motivation according to Santrock (2014), which includes self-determination, interest, experience and operational flow, cognitive involvement and self-responsibility, reward, and punishment. The higher the score obtained, the higher the learning motivation of the students, and vice versa.

Self-concept is a set of beliefs, knowledge, and perceptions that an individual has about oneself. This can include psychological, social, and physical beliefs that can influence a person's behavior and decision-making. Self-concept can be measured using a Self-Concept Scale based on aspects of self-concept according to Hurlock (2013), which includes physical and psychological aspects. The higher the score obtained, the higher the self-concept of the individual, and vice versa.

This study employs two independent variables, namely family support and self-concept, and one dependent variable, which is learning motivation. The research method used in this study is quantitative correlational. The operational definition of the variables are as follows: Learning motivation is the process of giving encouragement and direction to individuals to create persistent behavior in student learning activities,

resulting in more focused, energetic, and sustained learning behavior, ultimately achieving learning goals. Learning motivation can be measured using the Learning Motivation Scale based on the aspects of learning motivation according to Santrock (2014), which consist of self-determination, interest, experience and operational flow, cognitive involvement and self-responsibility, reward, and punishment. The higher the score obtained, the higher the learning motivation of the student, and vice versa. Self-concept is a set of beliefs, knowledge, and perceptions that a person has about oneself. It can include psychological, social, and physical beliefs that can influence an individual's behavior and decision-making. Self-concept can be measured using the Self-Concept Scale based on the aspects of self-concept according to Hurlock (2013), which consist of physical and psychological aspects. The higher the score obtained, the higher the self-concept of the individual, and vice versa. Family support is the support given by the family in terms of emotional, instrumental, and informational presence and assistance as an effort to help and complement the needs of each family member. Family support can be measured using the Family Support Scale based on the aspects of family support according to Canavan & Pinkerton (2006), which consist of emotional support, appreciation support, concrete instrumental support, and informative support. The higher the score obtained, the higher the family support given to the individual, and vice versa.

The population of this study consists of all 7th and 8th grade students at SMP 1 Muhammadiyah Surakarta, which amounts to 249 students, comprising 102 students in 7th grade and 147 students in 8th grade. According to Arikunto (2010), if the total population is more than 100 individuals, a sample of 20%-25% or more can be taken. In this study, the researcher takes 40% of the total population, which results in a sample size of 100 students, comprising 44 students in 7th grade and 56 students in 8th grade. This study uses purposive sampling technique with the characteristics of respondents as follows: students who currently attend junior high school in 7th and 8th grade.

Family support is the support provided by family members in terms of presence and emotional, instrumental, and informational companionship as an effort to help and fulfill the needs of each family member. Family support can be measured using the Family Support Scale based on the aspects of family support proposed by Canavan and Pinkerton (2006), which include emotional support, appreciation support, instrumental concrete support, and informational support. The higher the score obtained, the higher the level of family support provided to the individual, and vice versa.

The population, sample, and sampling technique were determined based on the information obtained from SMP 1 Muhammadiyah Surakarta, which has a total of 249 students in grades 7 and 8, consisting of 102 students in grade 7 and 147 students in grade 8. According to Arikunto (2010), when the total population is more than 100 individuals, a sample of 20%-25% or more can be taken. In this study, the researcher took 40% of the total population of 249 students, resulting in a sample size of 100 students, consisting of 44 students in grade 7 and 56 students in grade 8. This study used purposive sampling technique, with the characteristics of the respondents being students of SMP 1 Muhammadiyah Surakarta who are currently in grades 7 and 8.

Table 1.
Subject Characteristics

Categorization		Quantity	Percentage
Father's job	Lecture	5	5%
	PNS	21	21%
	Laborer	15	15%
	Farmer	9	9%
	TNI	9	9%
	Polri	6	7%
	Employee	13	13%
	Self-employed	23	23%
Mother's job	Employee	12	12%
	Housewife	37	37%
	PNS	16	16%
	Lecture	3	3%
	Self-employed	14	14%
	Laborer	12	12%

		Farmer	6	6%
Father's Education		High School	21	21%
		Diploma	26	26%
		Bachelor	40	40%
		Master	13	13%
Mother's Education		High School	12	12%
		Diploma	25	30%
		Bachelor	22	17%
		Master	37	37%
		High School	4	4%

Method and Data Collection Tools

This study employed a quantitative method, and the data collection process was conducted using Google Forms distributed to each homeroom teacher of grade 7 and grade 8 at SMP Muhammadiyah 1 Surakarta. Students could access and fill in the Google Form through class groups on the Whatsapp application. The data collection was conducted from May 24 to May 30, 2022. The measurement tools used were the Family Support Scale, Self-Concept Scale, and Motivation to Learn Scale.

The Motivation to Learn Scale was developed by the researcher and consisted of 41 items, including 23 favorable items and 18 unfavorable items. The scale was based on the theory of learning motivation proposed by Santrock (2014), which includes aspects such as self-determination, interest, operational flow and experience, cognitive engagement and self-responsibility, rewards, and punishment.

Table 2.
Blueprint Learning Motivation Scale

No	Aspect	Indicator	Item		Quantity
			F	U	
1.	Self determination	Able to set goals	1,3,5	2,4	5
		Possess intrinsic motivation	6,8	7,9	4
2.	Interest	Understand one's own potential	10, 12	11, 13	4
		Master one's own potential	15,17	14, 16	4
3.	Possess relevant experiences and optimal flow.	Seek challenges	18, 2	29, 21	4
		Possess relevant skills	23, 25	22	
		Intense feelings of joy	24, 26	27, 29	4
4.	Cognitive engagement and self-responsibility	Efforts exerted	28, 30	31, 33	4
5.	Punishment	Risks incurred	35,37,39	32, 34	5
6.	Reward	Rewards received	40,41	36, 38	4
	Total				**41**

The Self-Concept Scale is measured using a scale created by the researcher, consisting of 36 items that include 19 favorable and 17 unfavorable items. This scale is constructed based on the theory of self-concept aspects by Hurlock (2013), including psychological and physical aspects.

Table 3
Self-concept Scale Blueprint

No	Aspect	Indicator	Item		Quantity
			Favourable	Unfavourable	

No		Indikator	F	U	Jumlah
1.	Aspek Fisik	Physical appearance	1,3	2,4	4
		Body parts	5,7	6,8	4
		Conformity with gender	9	10	2
		Individual's sense of prestige	11, 13	12, 14	4
2.	Aspek Psikologis	Adaptability to life	15,17,19	16,18,20	6
		Personal traits (bravery, honesty, independence).	21,23,25	22,24,26	6
		Self-confidence	27.29	28,30	4
		Self-esteem	31,33,35	32,34,36	6
Total					**36**

The Family Support Scale is measured using a scale created by the researcher, consisting of 35 items including 17 favorable and 18 unfavorable items. This scale is constructed based on the aspects of the self-concept from Dolan, Canavan, and Pinkerton (2006), including emotional support, esteem support, instrumental support, and informational support

Tabel 4
The Family Support Scale Blueprint

No	Aspek	Indikator	Item		Jumlah
			F	U	
1.	Emotional Support	Providing love and affection	1,3	2,4	4
		Providing care	5,7	6,8	4
		Providing attention	9,11	10,12	4
2.	Appreciation Support	Providing positive appreciation	13,15	14,16	4
		Providing assistance	17,19	18,20	4
3.	Concrete Support	Providing educational facilities	21,23	22,24	4
		Providing material needs	25,27	26,28	4
4.	Informational Support	Providing warning	29,31	30,32	4
		Providing advice or guidance	33,35	34,36	4
Total					**36**
Total					**36**

The rating scale for each statement is determined by dividing the responses into Very Inappropriate (VI), Inappropriate (I), Appropriate (A), and Very Appropriate (VA) and adding them according to the scoring rating. The scoring scale can be seen in the following table.

Tabel 5
Scale Scoring

Statement Alternatives	Skor	
	Favorable	*Unfavorable*
Appropriate	4	1

Appropriate	3	2
Not Compliant	2	3
Highly Incompatible	1	4

Instrument Validity and Reliability

Test the validity of the scale in this study, namely the Learning Motivation Scale, Self-Concept Scale, and Family Support Scale, is content validity. Validity testing was carried out by a Professional Expert Judgment who is a lecturer at the Faculty of Psychology, Muhammadiyah University of Surakarta, with a total of 3 lecturers. Each item on the three scales consists of 5 scores starting from a score of 1 to 5. After expert judgment, the researcher calculated from the results of the test using Aiken's V with a Microsoft Excel device. Procedure for testing if the value of $V < 0.67$ then it is declared as a failed item, if the value of $V \geq 0.67$ then the item that meets these criteria is declared valid. The higher the validity number is close to 1,000, the more valid the measurement results will be (Syaifudin, 2012).

Tabel 6
Skala Motivasi Belajar setelah Uji Validitas

No	Aspect	Indicator	Item		Quantiy
			F	U	
1.	Self determination		1,3,5	2,4	5
			6,8	7,9	4
2.	Interest		10,12	11,13	4
			15,17	14,16	4
3.	Optimal experience and flow		18,20	29,21	4
			23,25	22	
			24,26	27,29	4
4.	Cognitive engagement and self-responsibility		28,30	31,33	4
5.	Punishment		35,37,39	32,34	5
6.	Reward		40,41	36,38	4
	Total				**41**

The results showed that in the Learning Motivation Scale, 41 items were deemed valid out of a total of 41 items, as they have met the minimum value of 0.67. The scale consists of 23 favorable items and 18 unfavorable items.

Tabel 7
Self-Concept Scale after Validity Test

No	Aspek	Indikator	Item		Jumlah
			Favourable	Unfavourable	
1.	Physical Aspects	Physical appearance	1,3	2,4	4
		Body parts	5,7	6,8	4
		Suitability to gender	9	10	2
		Personal sense of pride	11, 13	12, 14	4
2.	Psychological Aspects	Ability to adapt to life	15,17,19	16,18,20	6
		Personal traits (such as bravery, honesty, independence)	21,23,25	22,24,26	6
		Self-confidence	27.29	28,30	4
		Self-worth	31,33,35	32,34,36	6

			Total		36

Based on the Self-Concept Scale table above, all items meet the minimum value limit of 0.67. Overall, there are 36 valid items. The Self-Concept Scale consists of 19 favorable items and 17 unfavorable items.

Tabel 8
Family Support Scale after Validity Test

No	Aspect	Indicator	Item		Quantity
			F	U	
1.	Emotional Support	Giving love and affection	1,3	2,4	4
		Providing care	5,7	6,8	4
		Giving attention	9,11	10,12	4
2.	Appreciative Support	Providing positive appreciation	13,15	14,16	4
		Providing assistance	17,19	18,20	4
3.	Concrete Support	Providing educational facilities	23	22,24	3
		Providing material needs	25,27	26,28	4
4.	Informational Support	Giving warning	29,31	30,32	4
		Giving advice or counsel	33,35	34,36	4
	Total				35

Based on the above table, all items on the Self-Concept Scale meet the minimum value limit of 0.67. Overall, there are 36 valid items in the Self-Concept Scale, consisting of 19 favorable and 17 unfavorable items.

To test the reliability of the three scales, the researcher needs 100 respondents. This is because at least 20 or more respondents are needed to obtain a distribution result that approaches normal values for reliability and validity testing, although there are no standard limits on the sample size for these tests (Sujarweni, 2014). The researcher conducted a reliability test using SPSS (Statistical Package for Social Science) version 16, using the Cronbach's Alpha method. An instrument can be considered reliable if it has a reliability coefficient of Concept Self (α) > 0.670 (Syaifudin, 2012). The results of the calculations using the Alpha Cronbach's formula show that the Learning Motivation Scale obtained a coefficient value (α) of 0.894, the Self-Concept Scale obtained a coefficient value (α) of 0.883, and the Family Support Scale obtained a coefficient value (α) of 0.920. All three calculation results indicate that the Learning Motivation Scale, Self-Concept Scale, and Family Support Scale are all reliable as they exceed the reliability coefficient (α) > 0.670.

The data analysis technique used in this study is multiple linear regression, used to determine the relationship between two independent variables, self-concept (X1) and family support (X2), with one dependent variable, learning motivation (Y). In conducting data analysis, the researcher used the statistical calculation program, SPSS version 16. Before conducting the multiple linear regression test, the assumptions of normality and linearity need to be tested. The instrument data can be considered normal if the Sig value > 0.05 on the One-Sample Kolmogrov-Smirnov Test table in the Asymp. Sig.1-tailed.

After verifying normality assumption, the next step is to test linearity. Data from the instrument can be considered linear if the value of Sig Linearity is < 0.05 or if the value of Sig Deviation from Linearity is > 0.05, as seen in the ANOVA table. If either of these conditions is met, it can be considered linear. After verifying the assumption, the next step is to proceed to the correlation test.

Result

The data analysis in this study employed multiple linear regression method after fulfilling the requirements of normality and linearity tests. Normality test was used to determine whether the data were normally distributed or not. Linearity test was used to determine whether the data were linearly distributed or not. Normality test used One Simple Kolomogrov-Smirnov, where if the asym Sig (1-tailed) > 0.05, it indicates that the data were normally distributed. The results of the normality test can be seen in the table below.

Table 9
Results of Normality Test

No.	Variable	N	Sig. (1-tailed)	Data Distribution
1.	Learning Motivation	100	0.200	Normal
2.	Self-Concept	100	0.200	Normal
3.	Family Support	100	0.200	Normal

Based on the table, it can be seen that in the Learning Motivation variable, the Sig. (1-tailed) p value is 0.200, which indicates that it is normally distributed because the Sig. (1-tailed) p value is > 0.05. In the Self-Concept variable, the Sig. (1-tailed) p value is 0.200, which also indicates that it is normally distributed because the Sig. (1-tailed) p value is > 0.05. In the Family Support variable, the Sig. (1-tailed) p value is 0.200, which indicates that it is normally distributed because of the Sig. p value is > 0.05. According to Kumaidi and Manfaat (2013), data can be said to approach normal distribution if the sample size of respondents (N) > 50, so it can be assumed that the data are normally distributed.

Linearity test was used to determine whether the relationship between variables is linear or not. The statistical model used to see linearity is Linearity or Deviation from Linearity. If the Sig. Linearity value is < 0.05, the data distribution is considered linear, or if the Deviation from Linearity value is > 0.05, the data distribution is considered linear. The results of the linearity test can be seen in the table below.

Table 10
Results of Normality Test

Test	Variable	Result	Explanation
Linearity	Relationship between Learning Motivation and Self-Concept	(F) = 234.690 dengan *linearity sig* 0.000	Linier
	Relationship between Family Support	(F) = 96. 306 dengan linearity sig 0.000	Linier

The results of the linearity assumption test in the ANOVA table in the linearity section of the learning motivation variable with self-concept variable obtained an F value of 234.690 with a linearity sig of 0.000 (p < 0.05), indicating a linear relationship. In the learning motivation variable with family support variable, the obtained F value is 96.306 with a linearity sig of 0.00 (p < 0.05), indicating a linear relationship.

After conducting the assumption test, the hypothesis test was carried out using the multiple linear regression analysis method. This hypothesis test is conducted to test the hypotheses designed by the researcher. The hypothesis can be said to be accepted if the Sig. value is less than 0.05, in this case, if the hypothesis is accepted, it means that there is a relationship between the variables.

Table 11
Multiple Linear Hypothesis Test Results

Model	Sum of Square	Df	Mean Square	F	Sig.
Regression	19456.71	2	9728.356	134.999	.000 [b]

a. Dependent Variable: Learning Motivation
b. Predictors: (Constant), Family Support, Self-Concept

Looking at the ANOVA table in the Sig 1-Tailed section, it can be seen that there is a very significant relationship between self-concept and family support with learning motivation. This can be seen from the value of (F) = 134.999 with a Sig. $p < 0.01$.

The minor hypothesis can be said to be accepted if the Sig. (1-Tailed) value is less than 0.05. The results of the minor hypothesis test can be seen below.

Table 12
Minor Hypothesis Test Results

	Variable	Learning Motivation
Sig. (1-tailed)	Self-Concept	0.000
	Family Support	0.000

Based on the table, it can be seen that both minor hypotheses have a relationship, namely between the self-concept variable and the learning motivation variable, and between the family support variable and the learning motivation variable. The existence of a relationship is indicated by both minor hypotheses obtaining a Sig. (1-tailed) $p < 0.01$, indicating that both minor hypotheses have a very significant effect.

The positive or negative relationship in both hypotheses can be seen from the Correlations table in the Pearson Correlation section as follows:

Table 13
Positive or Negative Relationship

	Variable	Learning Motivation
Pearson Correlations	Self-Concept	0.847
	Family Support	0.652

Looking at the table above, if the sign is negative, it means that when variable X increases, variable Y decreases, so they have an opposite direction. If the sign is positive, it means that when variable X increases, variable Y also increases or they have the same direction. It is known from the table that both minor hypotheses have a positive effect. The positive relationship can be seen in the first minor hypothesis, which states that there is a positive relationship between self-concept and learning motivation score (r) = 0.847 (r > 0) and Sig. (1-tailed) $p < 0.01$, indicating a significant positive relationship between self-concept and learning motivation. In the second hypothesis, there is a positive relationship between family support and learning motivation with a score of (r) = 0.652 (r > 0) and Sig. (1-tailed) $p < 0.01$, indicating a significant positive relationship between family support and learning motivation.

The influence of the relationship between family support and self-efficacy with career decision-making can be seen from the table below:

Table 14
Effective Contribution of Independent Variables and Dependent Variables

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.858	.736	.730	8.489

The effective contribution is used to determine the extent of the relationship between self-concept and family support with career decision-making. From the coefficient R2 = 0.736, it can be said that the contribution of independent variables that affect the dependent variable in this study is 73.6%, with a breakdown of the effective contribution of the Self-concept Variable to the Career Decision-making Variable being 62.1% and the Family Support Variable to the Career Decision-making Variable being 11%. The remaining 26% is contributed by other variables.

Based on the analysis results, the data can be categorized into five categories, namely very high, high, moderate, low, and very low categories. In terms of the variable of learning motivation, it is known that the empirical mean result (RE) = 117.05 and the hypothetical mean result (RH) = 102.5, which means that students of 1 Surakarta junior high school have a learning motivation that falls into the high category.

Table 15
Learning Motivation Category

Interval Score	Kategorisasi	Average Hypothetical (RH)	Average empirical (RE)	Frequencyi (∑N)	Percentage (%)
41 ≤ X ≤ 65.6	Very Low			0	0%
65.6 < X ≤ 90.2	Low			6	6%
90.2 < X ≤ 114.8	Moderate	**102,5**		38	38%
114.8< X ≤ 139.4	High		**117,05**	48	48%
139.4 < X ≤164	Very High			8	8%
Total				**100**	**100 %**

Based on the table, it can be seen that 6 or 6% of students have low learning motivation, 38 or 38% of students have moderate learning motivation, 48 or 48% of students have high learning motivation and there are 8 or 8% of students who have very high learning motivation.

It is known from the Self-Concept variable that the hypothetical mean (RH) = 90 and the empirical mean (RE) = 102.85, indicating that the self-concept of the students is categorized as high.

Table 16
Self-Concept Categorization

Interval Score	Categorisation	Hypothetical Average (RH)	Empirical Average (RE)	Frequency (∑N)	Percentage (%)
36 ≤ X ≤ 57.6	Very Low			0	0 %
56 < X ≤ 79.2	Low			4	4%
79.2 < X ≤ 100.8	Moderate	**90**		44	44%
100.8 < X ≤ 122.4	High		**102.85**	40	40%

				12	12 %
122.4 < X ≤ 144	Very High			**100**	**100 %**
Total					

Based on the table, it can be seen that there are 4 or equivalent to 4% of students who have a low self-concept, 44 or equivalent to 44% of students who have a moderate self-concept, 40 or equivalent to 40% of students who have a high self-concept, and 12 or equivalent to 12% of students who have a very high self-concept.

On the Family Support variable, it is known that the hypothetical mean (RH) = 87.5 and the empirical mean (RE) = 111.12, which means that the family support received by students is included in the high category.

Table 17
Family Support Categorization

Interval Score	categorization	Hypothetical Average (HA)	Empirical Average (EA)	Frequency (∑N)	Percentage (%)
35 ≤ X ≤ 56	Very Low			1	1 %
68,4 < X ≤ 77	Low			2	2 %
98,8 < X ≤ 98	Moderate	**87.5**		19	19 %
129,2 < X ≤ 119	High		**111.12**	42	42%
159,6 < X ≤ 140	Very High			36	36 %
Total				**100**	**100 %**

Based on the table, it can be seen that there is 1 or 1% of students who received very low family support, 2 or 2% of students who received low family support, 19 or 19% of students who received moderate family support, 42 or 42% of students who received high family support, and 36 or 36% of students who received very high family support.

Discussion

This study aimed to investigate the relationship between self-concept and family support with student learning motivation at 1 Muhammadiyah Surakarta junior high school. The results of multiple linear regression analysis showed that the major hypothesis was accepted, which could be seen from the value of (F) = 134.999 with Sig.p = 0.000 (p < 0.01), indicating a significant relationship between self-concept and family support with learning motivation. The analysis results indicate that self-concept and family support jointly influence learning motivation in junior high school students. In terms of the learning motivation variable, the empirical mean (RE) = 117.05 and the hypothetical mean (RH) = 102.5 were found, indicating that the learning motivation of SMP 1 Surakarta students is classified as high.

Table 18
Motivation Learning Category

Category	Grade	Male	Female	Amount	Total
Low	7	1	2	3	6 (6 %)
	8	2	1	3	
Moderate	7	5	12	17	38 (38 %)
	8	12	9	21	
High	7	6	15	21	48 (48 %)

	8	15	12	27	
Very High	7	3	2	5	8 (8 %)
	8	1	2	3	

Based on the results above, in the 7th grade, there were 3 students with low learning motivation, 17 students with moderate learning motivation, 21 students with high learning motivation, and 5 students with very high learning motivation. In the 8th grade, there were 3 students with moderate learning motivation, 21 students with moderate learning motivation, 27 students with high learning motivation, and 3 students with very high learning motivation. The results above indicate that the majority, which is 56%, of students at SMP 1 Muhammadiyah Surakarta have good learning motivation, 38% of students fall into the moderate category, and the remaining 6% still do not have good learning motivation.

The results of this study indicate that the first minor hypothesis, which is a positive relationship between self-concept and learning motivation, is supported by the correlation coefficient value (r) of 0.847 and Sig. (1-tailed) $p < 0.01$. This result indicates a highly significant positive relationship between self-concept and learning motivation. Other studies have also shown that self-concept is positively related to students' learning motivation. The more positive self-concept a student has, the higher their learning motivation will be (Nursanti & Sugiarti, 2022).

The second minor hypothesis states that there is a positive relationship between family support and learning motivation, as seen from the correlation coefficient value (r) = 0.652 and Sig. (1-tailed) $p < 0.01$. These results indicate a highly significant positive relationship between family support and learning motivation. Other studies also demonstrate a positive relationship between family support and learning motivation (Nuraini, Mubina, & Sadijah, 2022).

This positive relationship is not separate from the role of parents in accompanying students during distance learning, where parents act as motivators, facilitators, directors, and even teachers at home for students (Ntelok, Nantung, & Tapung, 2021). This is supported by subject characteristic data related to the occupation of students' parents, where it is known that out of 100 male subjects' fathers, 64% had to work from home during the pandemic, including 23 entrepreneurs, 21 civil servants, 15 laborers, and 13 employees, and 5 were lecturers. As for the 36% with other jobs, these could not be done from home, such as 9 farmers, 9 TNI, and 6 police officers. Meanwhile, out of 100 female subjects' mothers, 94% had to work from home during the pandemic, including 37 housewives, 12 employees, 16 civil servants, 3 lecturers, 14 entrepreneurs, and 12 laborers, while 6% had jobs that could not be done from home, such as 6 farmers. Based on this data, it is known that the most common profession is housewives, who are considered to be more focused on educating and nurturing their children, especially in fostering their spirit and learning motivation. This is influenced by the availability of time given to accompany their children's learning. However, other studies have stated that the learning motivation of children is higher when their mothers work compared to those whose mothers are housewives (Devi, Suniasih, & Abadi, 2020).

The results of the data analysis are categorized into 5 categories, namely very low, low, moderate, high, and very high. The three variables are classified as high with the following details:

Table 19
Variable Category

Variable	Empirical Average	Category	Male	Female	Total
Motivation to learn	117.05	high	21 (21%)	27 (27%)	48 (48%)
Self Concept	102.85	high	18 (17.6%)	22 (22%)	40 (39.6%)
family support	111.12	high	18 (18%)	24(24%)	42 (42 %)

The variable of learning motivation was found to have an empirical mean (EM) of 117.05 and a hypothetical mean (HM) of 87, indicating that the learning motivation of 7th and 8th grade junior high school students is in the high category. The table above shows that female students dominate the high category in the career decision-making variable (27% > 21%). Looking at the table above, the number of students with high learning motivation are females. Other studies that are consistent with the data above show that there are differences in learning motivation between male and female students, where female students achieve higher results than male students (Akmalia, 2021).

Based on the Variable Self-Concept, the obtained results of the hypothetical mean (RH) = 114 and the empirical mean (RE) = 149.34 indicate that the self-concept possessed by 7th and 8th-grade junior high school students falls into the high category. The table above shows that females dominate the high category in the self-concept variable (22%>17.6%). This indicates that there is a difference in self-concept between males and females, which is viewed from physical and psychological aspects. This differs from previous research that showed no difference in self-concept between males and females, and concluded that gender does not affect individual self-concept (Andriasari, 2015).

Based on the data, it is known that the mean empirical (RE) of family support variable is 159.29 and the hypothetical mean (RH) is 126, indicating that the family support received by 7th and 8th grade junior high school students is classified as high. The table above shows that females dominate the high category in the family support variable, with a percentage of 24% compared to 18% for males. This indicates that female students receive greater family support than male students. Females receive greater support due to their closer proximity to their families compared to males, which affects the level of support from their families (Mangestuti, 2017).

The effective contribution of self-concept and family support to learning motivation is R Square = 0.736, which means that self-concept and family support as variables that influence learning motivation as the dependent variable are 73.6%, with a detailed effective contribution of the self-concept variable to learning motivation by 62.1% and the effective contribution of family support variable by 11%, while 26% is determined by other factors.

Based on the data, it can be observed that the highest level of education achieved by the parents of the students is mostly at the bachelor level. This indicates that the level of education of parents can have an influence on the low or high level of student motivation. This is consistent with other studies that suggest that the level of parental education has an impact on student motivation (Karunia, Simamora, & Adam, 2019). Another factor that affects student motivation is the level of parental education. The subject characteristics data obtained in this study shows that the highest level of education attained by fathers is at the bachelor level with 40 individuals, followed by the associate's level with 26 individuals, high school level with 21 individuals, and the master level with 13 individuals. Meanwhile, the highest level of education attained by mothers is at the bachelor level with 30 individuals, followed by the senior high school level with 28 individuals, the diploma level with 25 individuals, the junior high school level with 12 individuals, and the master level with 5 individuals.

Based on the data, it can be seen that the last education level of the students' parents is classified as high, both for the father and mother. This can be seen from the majority of parents having a Bachelor's degree. Therefore, the parents' education level can influence the low and high levels of student learning motivation, which is consistent with other studies that state that the parents' education level affects student learning motivation (Karunia, Simamora, & Adam, 2019).

Conclusion

The conclusion of this study is that there is a significant relationship between self-concept and family support towards learning motivation. The results of the analysis indicate that self-concept and family support together influence learning motivation in middle school students. Another result shows a highly significant positive relationship between self-concept and learning motivation. The higher the self-concept, the higher the learning motivation of students, and vice versa. Another finding indicates a highly significant positive relationship between family support and learning motivation. The higher the level of family support, the higher the level of student learning motivation, and vice versa.

One of the recommendations in this study includes: (1) For students, it is expected to maintain their learning motivation by helping each other if there are friends who still have difficulties in understanding the material or school assignments. This can be seen from the results where 38% of students at Muhammadiyah 1 Surakarta junior high school were categorized as having moderate levels of learning motivation and 6% still lacked good learning motivation. (2) For parents, it is hoped that they can maintain the support given to their children in facing online learning during the pandemic. (3) For further researchers, it is expected that this study can be used as a reference to further expand data related to factors that influence students' learning motivation.

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"I Need More than Emotional Support!":
An Exploration of Social Support for Domestic Violence

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Abstract

Domestic violence (domestic violence) is a treatment that causes physical, mental and sexual injuries that occur in married women. This research was conducted to determine the form of social support provided in the surrounding environment. The method used in this study is qualitative phenomenology. In addition, the data collection methods and tools used in this study used semi-structured techniques and used problem mining (probing), namely by interviews. The subjects in this study were 6 female victims of domestic violence. The subject criteria are women who are married and have experienced domestic violence during their marriage. The results obtained from the interview results of the six subjects received 5 forms of social support, the first was emotional support in the form of physical presence, existence, sense of security, empathy, strengthening words and giving advice. The second is instrumental support in the form of materials and business capital. Forms of social support. Implication or recommendation?

Introduction

Domestic violence is an act committed by a married person that causes physical, sexual, or mental suffering (Budiatuti, 2019). Domestic violence is a phenomenon in Indonesia, attributable in part to the country's strong patriarchal culture, which results in the arbitrary behavior of husbands toward their wives (Mariana, 2018). In addition, this leads people to believe that the wife is subordinate to her husband, which makes it easier for husbands to conduct domestic violence against their spouses when issues arise in the home (Arief, 2018). The problem of violence is still viewed as a necessary aspect of existence by our culture (Santoso, 2019).

In terms of domestic violence cases in Indonesia, Women National Commission's 2018 annual report indicated that the number of violent incidents against wives grew and ended in divorce in as many as 335,062 cases (Hadi, Heniarti, & Zakaria, 2020). In 2019, approximately 94 cases of domestic violence in the form of physical, psychological, sexual, and neglect were reported (Putra, 2019). In 2020, the National Women's Commission obtained several figures at the end of the year, including the number of cases of violence against women reaching 299,911 during Covid-19 (Rosyaadah & Rahayu, 2021). Researchers acquired data on domestic violence in the city of Solo from SPEK-HAM and the local government; in 2017 there were 72 cases, in 2018 there were 75 cases, in 2019 there were 72 cases, in 2020 there were 52 cases, and in 2021 there were 59 incidents. In addition, according to SPEK-HAM, the incidence of domestic violence in Surakarta grew to 35% in 2020. This demonstrates that women are especially susceptible to violence during the Coronavirus 19 outbreak 80% of them are between the ages of 25 and 35 (Fitri, 2021).

In this sense, domestic violence is a societal phenomenon that occurs regardless of the perpetrator or victim's culture, religion, race, or age (Manan, 2018). The victim was subjected to intense rage and even physical assaults as an outlet, in addition to pressure and threats (Ramadhan, 2018). Yanis et al. (2019) discovered that the causes of domestic violence are economic issues, cultural factors, ideological factors, third party elements or infidelity, and a lack of public awareness of the problem. There are two types of violence: physical violence, such as coercion and threats that hurt limbs, and psychological violence, such as acts that cause fear, loss of self-confidence, and a sense of helplessness (Ramadhan, 2018). Thirdly, there is sexual violence, specifically pressure to have sex, and finally, there is economic violence, specifically neglecting or not providing for the household (Nisa, 2018). This act of violence can have a psychological impact on the victim, ranging from anxiety, fear, lack of confidence, irritability, crying easily, and nightmares to trauma (Alimi & Nurwati, 2021).

Due to the aforementioned situation, domestic violence victims require social assistance from their community. Because social support makes the subject beloved and aids in problem resolution. This conforms

with what Azizah (2020) stated, the social support that victims receive makes it simpler for them to communicate their emotions and obtain information and assistance, allowing them to feel safe. Social assistance can also enable victims to lessen problems that cause them harm and interfere with their future endeavors (Fadhol, 2020). Additionally, social support can facilitate coping and health maintenance in two fundamental ways. The first fundamental method is that persons who receive social support experience less stress; the second is that social support enables individuals to better manage stress. Effective social support consists of expressing care and a readiness to listen to concerns. (Grison & Gazzaniga, 2019).

According to Sarafino and Smith (2011), there are four types of social support, including emotional support, which consists of conveying empathy, caring, affection, attention, feelings of being heard and appreciated, appreciation support in the form of evaluation and reinforcement, and information support, which consists of providing advice or support. advice. Individuals feel more at ease, cared for, cherished, and confident when receiving social assistance (Gimmy & Eva, 2018). From the phenomena above, social support is really needed by victims of domestic violence. This support is very important for victims so that they can feel loved or cared for and arouse enthusiasm for activities. Based on the description above, the researcher's question is what is the ideal form of social support for victims of domestic violence in Surakarta?

Method

This research has made use of qualitative phenomenology as its methodology. Qualitative phenomenology is the study of the significance of the life experiences of a person or a group of individuals in relation to observable phenomena (Creswell & Poth, 2018). For this reason, researchers adopt a phenomenological method, as they receive knowledge about events or experiences in the community and are therefore compelled to investigate this phenomenon further.

Participants

In this study, the researcher must determine the type of approach and selection criteria utilized by respondents. Women who are victims of domestic violence and who reside in Surakarta meet the criteria for the study's subject population. The reason the researcher is focusing on Surakarta is because it is a large city with a high rate of domestic violence.

Table 1. Demographics of the six respondents

Responden	Age	Last education	Age of marriage	Marital status	The beginning of the violence
Responden 1	± 39 th	Vocational high school	±11 years	Divorce	When the second child is two months old, form of verbal violence is harsh words
Responden 2	± 28 th	Vocational college	± 3 years	Divorce	When child is 2 months old by being slapped
Responden 3	± 41th	Vocational high school	± 8 years	Divorce	Two years after the marriage, she was physically abused by beatings
Responden 4	± 25 th	Senior High School	± 3 years	Divorce	She experienced physical violence in the form of punch
Responden 5	± 48th	Senior High School	±28 years	Still married	When the child is one month old, she experienced physical violence of beatings and psychological violence of swearing
Responden 6	±27 th	Senior High School	±2 years	Divorce	When she was pregnant the second child, experienced physical violence in form of beatings

Procedure

This study employed semi-structured approaches and data gathering tools (Creswell & Poth, 2014), and probing was used if the issue raised was unsatisfactory. Because this study will investigate the types of social assistance obtained by victims of domestic abuse in the community, the use of interview techniques and questioning is

deemed appropriate for this study. This interview and probing technique also facilitates the extraction of problems based on the author's introduction to the Sarafino and Smith characters' main theory regarding aspects of social support, such as emotional support, namely by conveying empathy, caring, affection, attention, feelings of being heard and valued, and support of appreciation; and information support, namely by providing advice or guidance. In this study, a VR (voice recorder) will be utilized to collect data, as well as a voice-recording device, whereas researchers can compile the data in verbatim form.

Table 2. Main interview guide

No	Component
1.	Forms of social support
	a. What form of reinforcement did the mother get?
	b. Whose support do you find most meaningful or valuable?
	c. What forms of support do you get?
	d. What sources of support do you get?

Result Consistency

This study's validity focuses on member check and peer debriefing, which, according to Mertens (2015), requires researchers to define criteria for who is included in member examinations and present justifications for their selection. The findings, conclusions, analyses, and hypotheses of researchers should be thoroughly discussed with their peers. Colleagues should pose search queries to assist the researcher in addressing his or her own values and to direct the researcher's subsequent research activities. Using member checks Researchers must also validate their findings with people to ensure their accuracy. In interviews, researchers ask one or more subjects questions to collect data. At this point, the informant met directly with the subject, who had consented to the collection of data. Then, he conducted a member check by consulting the data with the interviewees. The information may be in the form of words or unique material.

Data analysis

This method of data analysis involves thematic analysis. In addition, the themes in this study were derived from data results or coding approaches. Combining text or visual data into discrete categories of information, looking for evidence of codes from other databases being utilized in the study, and then labeling them are coding approaches (Creswell & Poth, 2014). In the process of coding, the researcher must consider several stages, such as taking written data obtained during data collection and assigning it to predetermined categories by describing all information in detail, including people, locations, and significant events encountered by informants in certain settings. In the form of tables or descriptions, it interprets the data collected after coding.

Results

The research conducted by the researchers doing this study to determine the type of social assistance obtained by victims of domestic violence. This study was conducted via direct interviews with six participants who met established subject criteria. Before beginning the interview, the researcher became familiar with and approached the six willing participants. Researchers examined the similarities and variations in the support received by six participants.

In the research conducted to obtain a result of the phenomenon that has to be revealed from the issue. The six respondents who had been victims of domestic violence discussed the various types of social help they had received.

Theme 01. Emotional support by physically present, existence, sense of security, empathy, strengthening words and giving advice

Emotional support is an indicator of the type of social support the subject receives; respondents from victims of domestic abuse receive emotional support in the form of being physically present, being present, feeling safe, experiencing empathy, using empowering words, and providing counsel. These six emotional supports are derived from close relatives and friends.

1.1. Physically present. .....that is all my parents and my parents almost every day invite me out so I don't stress at home he said that and every day my nephew told me to sleep with me so I didn't feel alone [R-1-044]

It's enough that God saves you from the wrong people, you'll find a good one later, that's okay, then usually they invite you to get together more often, ask where you want to go, how about that, don't just go there and there.... [R-2-053]

That's if the biggest support is from Spekham, from Specham like that, the support is really helpful, the problem is from really down from really falling down from Specham, come on, madam like that, the support really builds like that so I don't feel alone like that, the term e, I'm really sad like that the term e from falling really like that like being hugged like that, you (R-6-051)

1.2. Existence. Got everyone's support and until now they are still good to me because no one from the ex's family agreed to his marriage with this one until his brother said you are still my sister no matter what happens you are still my sister and his wife I don't think he is my brother my son consider my nephew because he is the flesh and blood of my sister but if his wife I don't consider her my sister she never said something like that [R-1-058]

My family and my parents really accept me, here is my son like that (iter:heem), you don't have the right to him like that do you......[R-6-056]

1.3. Sense of secure. "Yes, the way he protects the only thing is that you are at home so it doesn't separate, it doesn't justify it, but at least it's possible to minimize it, yes, we're not both in the same city, the same house might be more controllable and controllable, right......" [R- 2-:048]

Ee, if it's because I'm two sisters, all of them always support and protect the ones who also take care of my cousin, who happens to be a guy (iter: heem) so I'm often invited to share something like that and talk so I don't get stressed... [R-2 -049]

1.4. Empathy. Psychological support is also because of them, right, all of them when they came for the first time, they cried, Ms. A and Ms. L, right, listen and we keep in touch. Sometimes they ask for news. It's very strengthening, so I feel a lot of love......[E:056]

"Right here, tell Ms. A all my complaints are to Ms. A..." [R-3-:047]

1.5. Word reinforcement. Yes, he gave me encouragement, now I just focus on my children, don't think about anything else (R-3-042)

Yes, he just gave encouragement, the spirit should not be discouraged, everything has a way because we were tested with the above, just like that, keep the spirit focused on the child [R-3-049]

"Yes, the main thing is to be patient and sincere, just wait, I'll definitely come back, Mrs. Y, just say amen" (R-5-041)

"Yes, that's all, just for the spirit of working to earn a living for my children, grandchildren and also my mother" (R-5-043)

1.6. Giving advice... ...the most supportive, most supportive is my mother, until now my mother has always given me good talk, always told me, don't do this, don't do this, just too controlling, but I don't want you to be controlled by my mother , it means he loves me, even though he still cares about that, sis, if you don't have a family, you have to be released normally, but it's not that my family still takes care of me, (R-4-040).

Theme 02. Instrumental support by material and business capital

As for other indicators of the nature of social support, notably instrumental support where this support takes the form of actual support, this support is of the genuine support variety. Family, close friends, and the SPEK-HAM charity provided respondents who were domestic violence victims with material assistance and company capital.

2.1. Material. Many friends bring my children's milk at home, bring food, sis, for the children's school like that, I get a lot of support from the people around me [R-1-051]

If you bring milk for my child, it's like giving pocket money for my son, clothes like that, every time my son goes there, it's like harvesting money from his buddha buddies, it's like that or his uncle is like that, so if until now it's still good with this family, ex [R-1-059]

If the food items continue to be like that, there are a lot of friends too, so it's like, for example, at work or at a boarding house, suddenly they go food or something, and they send mukenas, send what prayers are like that, and so many mukenas send friends -friends too [R-2-054]

My mother's brother and sister are all better, I have two brothers, everything is fine, sis (iter: heem) support, often help even if you go there you give money and give money, give milk to my child, this buy my son's toys also buy dadine fair, dadi because my son's father has his own family, so intine [R-4-057]

It's just that sometimes my child is number two to help with financial problems" [R-5-044]

2.2. Venture capital. I was given capital by the office here, like a cart like that to sell things, so to make a connection like that to support my child, I asked Ms. Tik to make a selling cart [R-5-:50]

It's like business capital, sis, if it's from Specham, thank God, you can really stand up like that [R-6-055]

Theme 03. Appreciation support in the form of praise

Respondents who are victims of domestic violence who receive assistance in the form of praise constitute a second sign of social support. This assistance was provided by the respondent's neighbors.

3.1. *Praise.* ....sometimes you are great, you know, you were a victim first, now you can help other victims, that has its own satisfaction [R-1-049]

Theme 04. Information support regarding the existence of the SPEK-HAM Foundation and job vacancies

Another form of social support is information support, where victims of domestic violence receive information by visiting the SPEK-HAM foundation and learning about employment openings. Respondents acquired this informational support from friends and relatives.

4.1. *SPEK-HAM Foundation.* I got it, the posyandu friend, Alfa Kadr's friend, my mother's friend, my mother's age, O mbak A, how come I've never been to the posyandu, where is your mother, so my mother finally told me about my problem. Ms. A's information will be ordered here and there, I will follow my mother and continue to support your child Wess and me, that's my son is still small, okay with my mother....[R-1-047]

Oh yes, so at that time, I met Ms. Atik and a friend of Specham's friend from my friend, so my friend has a church friend, and so happened to have worked at Specham sharing. Later, the flow will be like this, Ms.)

My family and brother were number one or my uncle yesterday, who told me I was here, sir, and I actually ate it (R-4-044)....Spekham, here yesterday I was escorted here with Mr. de I'll let you hurry up, he says, and don't queue until it's complicated. Intine, if you register alone, it only costs a little bit but it's still going on, right, it's eaten there, Intine, it's better to pay for the bulk wae, tell me to pay, I say that, it's important to have a safe tour quickly, I was advised to come here, escorted here" (R-4-046)

There used to be, used to be Christians too, but what's your name, sir, what if I was able to get here, can I know Ms. L and Ms. A, that's what my friend told me [R-5-046]

4.2. *Job vacancy****.*** *If you have a lot of friends from outside, sis, it's like they give you this information here, you are here, you work like this, sometimes you give it a photo like that [R-6-054]*

Theme 05. Legal support in court proceedings and child custody

Respondents who are victims of domestic violence obtain legal help in the form of court procedures and child custody as another type of social support. The subject acquired this legal assistance from the SPEK-HAM Foundation.

5.1. *Court proceedings.* They will also be assisted for the divorce process so that later the costs will be low, they will still help, even though sometimes Ms. A doesn't accompany me but later she calls for example, the village head or what to help say that.......[R-2-056]. Doing everything, madam, from the court process to completion, Miss L and Ms. A who support and also provide support for Mrs. Y (R-5-048)

5.2. *Child Custody.* At first, it was really helpful, because my first child, who was number one, was hidden like that, then from Spekham, they were like, what's their name, they were really supportive like that, you really helped me so I could meet my son, who was torn apart, then from PT, right? one is like so and so. It was also really helpful, so I could meet my first zinc son like that (R-6-052).
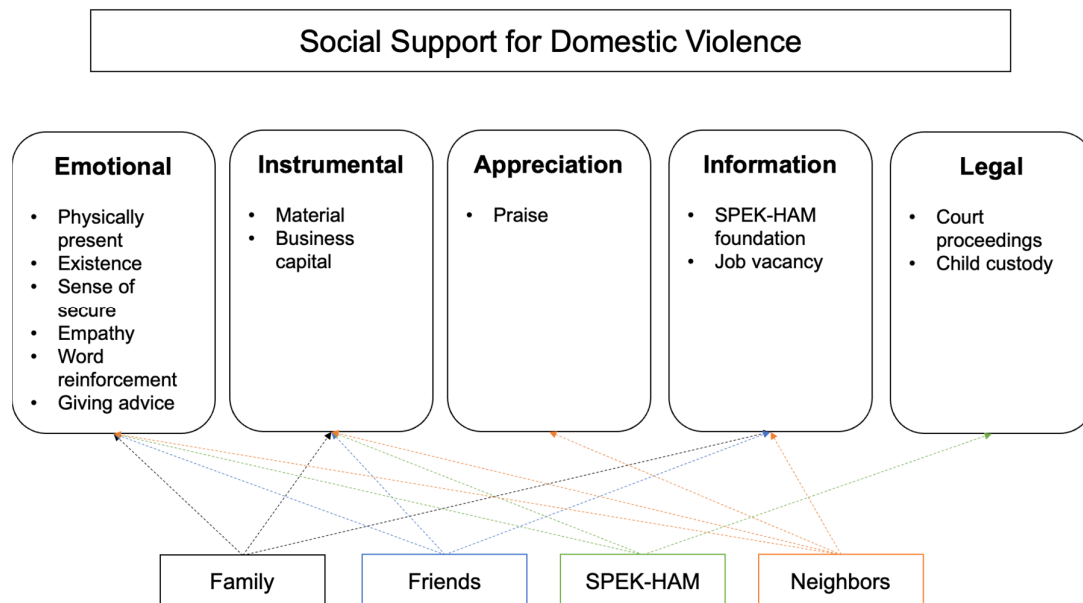
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                    Social Support for Domestic Violence
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Emotional	Instrumental	Appreciation	Information	Legal
• Physically present • Existence • Sense of secure • Empathy • Word reinforcement • Giving advice	• Material • Business capital	• Praise	• SPEK-HAM foundation • Job vacancy	• Court proceedings • Child custody

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    Family          Friends         SPEK-HAM        Neighbors
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Chart 1. Forms of social support for domestic violence victims

Discussion

The study of the aforementioned interview data revealed that the subject's social support provided the researcher with a number of crucial insights. The subject acquired multiple types of social assistance, including (1) emotional support, (2) instrumental help, (3) award assistance, (4) information assistance, and (5) legal assistance.

As a form of social support, the individual receives emotional support in the form of physical presence, existence, a sense of safety, empathy, uplifting words, and counsel. Individuals obtain this information through their families, the SPEK-HAM Foundation, and close friends. This study is similar to Azizah's (2020) research in which respondents received emotional support in the form of expressions of empathy, care, and concern.

Individuals receive a second type of social support in the form of instrumental assistance, which is genuine support. Individual researchers provide instrumental support in the form of material support and venture money. This study is consistent with research undertaken by Wulandri and Fauziah (2019), in which participants receive instrumental help in the form of money. In addition, rewards gained by individuals are supported by the social support they receive from their neighbors. This study is consistent with research conducted by Ihsani et al. (2022), in which the participant got praise as a kind of encouragement.

The second type of social support individuals receive is information support. Individuals acquire this informational assistance from family and friends. This informational assistance consists of information on the SPEK-HAM foundation and employment openings. This study's findings are consistent with studies (Sukarni et al., 2019) in which the subject receives informational support to overcome the challenge.

The final type of social assistance obtained by respondents is legal assistance. This legal assistance was provided by the SPEK-HAM foundation. The SPEK-HAM Foundation provides legal aid in the form of courts and child custody, which facilitates the existing legal process for responders. This study is consistent with the findings of Ezer et al. (2018), who found that legal support involves four essential components: access to expert legal advice, patient and family empowerment, and developing health care employees' awareness of their rights.

In accordance with Maslow's theory of requirements, the hierarchy of wants, the type of social support that an individual receives is derived. This idea encompasses physiological, safety and security, social, esteem, and self-actualization demands (Yuliana, 2018).

Of the five supports, namely emotional support, instrumental support, appreciation support, information support, and legal assistance, individuals receive emotional and instrumental help from family, friends, neighbors, and the SPEK-HAM foundation. For informational support from family, friends, and neighbors. The only source of legal help is the SPEK-HAM foundation, and individuals can only receive award support from their neighbors.

According to the theory put forward by Javier and Herron (2018)domestic violence can cause victims to have negative experiences such as fear of feeling terrorized and anxious. Meanwhile, social support will make victims feel safe, more courageous and stronger.

Conclusion

According to the findings of the study, domestic abuse victims got a variety of types of social support. Respondents got emotional support in the form of physical presence, presence, a sense of safety, empathy, words of encouragement, and counsel. The second component is instrumental assistance in the form of material and business capital. The third type of social support is praise-based appreciation support. Fourth, there is information support in the form of SPEK-HAM foundation information and employment openings. The final type of social assistance is legal assistance, which includes courts and child custody.

Individual traits and the timing of the divorce should be the focus of future investigation. Additionally, researchers recommend that future studies delve deeper into the advantages of this sort of support. Future researchers can acquire data using quantitative ways.

The results of this study present practical recommendations that the Dinas or Komnas Perempuan can implement on domestic violence instances so that they can serve as regulatory references. For the Women's Solidarity Institute for Humanity and Human Rights (SPEK-HAM), this research is expected to serve as a resource for victims of domestic violence or community service, and for gender equality activists, it is anticipated that this research will serve as one of the sources for popular writing

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Improving the Ability of Ecce Teachers to Teach Online through Training on Playing Methods and Songs

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Abstract

Purpose: The purpose of this training is to improve the quality of teachers, especially kindergarten teachers, in carrying out online learning at an early pandemic to be able to implement pleasant methods for children*Methodology*: The training is the practice of gesticulating and song methods in the early learning process of children, given to the 35 preschool teachers who come from four schools in Bantul district. The hypothetical test for the effectiveness of the training online teaching methods through play and songs is known by performing a hypothetical test based on the analysis calculation of independent t-test samples*Results*: The t-test analysis has obtained coefficients of Uji-t = 34.524 and data sig (2-tailed) = 0.000 can be concluded that Ho has been rejected and Ha has been accepted, which means that there is a difference in understanding and ability in teachers that follow the series of training methods by given online through play and song. The average value of pretest (re) pretest at 7.4857 and empiric mean (re) posttest at 17.2857. Thus it may be concluded that the teacher's understanding/ability after having taken the online learning training through play and song is higher than before taking the training. *Applications/Originality/Value*: online learning, Play and songs method, early childhood

Introduction

Online learning requires all parties from teachers, parents, and students to work together. Cooperation carried out, such as teachers as activity planners and assessments of learning outcomes; while parents as a mentor for children while at home in monitoring the learning process. Online learning requires parents to be the "key" successor for this learning method. The Adaptation of changes in this method absolutely is very difficult to implement and apply, especially to students and parents (Hidayat, 2020). The Ministry of Education and Culture provides direction regarding the role of parents in this learning method. The parents must prepare learning tools, ensure that students are ready to take part in learning, prepare time to support the online learning process, encourage and encourage children to be active during the learning process, ensure that children fill out activity sheets, collect photos of activity sheets and child assignments every day, and provide children with learning places and facilities which is convenient. However, there are many obstacles for parents in carrying out this role, especially for parents who work and have to carry out *Work From Home* (WFH). Which is the role of parent as the successor to the delivery of material that should be carried out by teachers in schools (Kemendikbud, 2020).

Early Childhood Education in the implications and implementation of online learning requires professional academic educators. In addition, as a learning agent, a teacher must also work more creatively and extra in preparing learning plans (materials, materials, methods and RPPH) implementation, as well as evaluations used during the online learning process that are different from before being affected by Covid-19, so it can attract the interest and enthusiasm of learning students (Daulae, 2014). Teachers as learning agents (*Learning Agents*) find it difficult to develop their learning. The learning process that was previously carried out directly by achieving all aspects, both cognitive, affective, and psychomotor, has now turned into online learning or distance learning. This greatly affects the growth and development of early childhood. The child's world is a world of play that tends to involve children interacting directly, meeting face to face, and being involved in several activities. This face-to-face meeting will provide motivations for the child. Early Childhood Education is an education that has a strategic role to develop initial potential for children, to fulfill children's growth and development so that children have a foundation and readiness to attend education at the next level. Conducive learning is difficult to achieve during the Covid-19 pandemic, because teachers as the main actors in learning are struggling and experiencing many obstacles to create a positive learning situation. Early childhood learning activities require teachers to be closer both psychologically and physically because the learning scene for early childhood is more

informal, carried out through activities with many activities of playing, singing (with songs), and not having an academic achievement target, but optimizing development so that teachers can create a comfortable and safe learning atmosphere for children.

Based on the results of the distribution of questionnaires through *google form* media, to obtain the overview of problems and teacher needs during online learning, it's obtained the field data among children or students and parents feels physical obstacles during the online learning process, such as the availability of cellphones, laptops, signals, and financial support. (Zakiya & Nurhafizah, 2019). Learning assistance from parents, because of the busy work and the implementation of the work from home system. Meanwhile, the obstacle felt by teachers in facing online learning is that it is difficult for teachers to get a fun learning model online in early childhood. Therefore, in this community service activity, a fun online learning model training was made in early childhood through playing and song methods. Early Childhood Learning should be done in a fun way. Through the method of playing and songs, the child will easily remember the song accompanied by movement. Sometimes the child forgets the song but remembers the movement. The child learns to remember movements with certain words and learns to make movements to the rhythm. Children basically already have the potential to have musical rhythmic intelligence, such as when a child gets the desired item then he will dance around. Playing Motion and song are very closely attached and inseparable especially in providing learning to early childhood. Learning to play motion and songs is an activity in playing while learning and learning while playing. Activities carried out through playing movements and songs are expected to please children and touch children's development, increase self-confidence, sensitivity to the rhythm of music and dare to take risks. Through the method of playing movements and songs, it is hoped that it will be one of the effective ways for children to express themselves, overflowing with emotions, feelings of pleasure, relaxation, sadness, emotion and admiration. The method of playing movements and songs is an activity of enjoying songs accompanied by limb movements and is an activity of playing while learning which is expected to be very fun and can train sensitivity to the rhythm of music. Motion and songs are also able to develop the creativity of students, namely through the choice of the type of motion, the speed of movement with the tempo of the song. As well as the selection of the right songs where everything helps to develop the creativity of early childhood children in school. This method of playing movements and songs can also be applied and implemented by teachers as one of the active learning methods in online learning, so that the role of parents in learning can be effective, early childhood development is achieved, and early childhood competence can be realized optimally.

Method of Implementation

The research design used in this study is quantifiable experimentation by providing treatment in the form of training to the research subjects. The ability possessed by the teacher after being given treatment so that respondents were given a questionnaire before (pretest) and after (posttest) the implementation of training. The population used in this study were teachers or teachers in public schools in early childhood education in the Bantul area. Based on data obtained from Datapendidikan.com (2021) there are 7 public kindergarten schools and 1,334 private kindergartens in Bantul district, Yogyakarta.

The training carried out is Training on Methods of Playing Motion and Songs in the Process of Early Childhood Online Learning, which is given to kindergarten teachers. The sample or participant was 35 teachers from five public and private kindergarten schools in Bantul District. The purpose of providing the training is to improve the quality of teaching staff, especially kindergarten teachers, in carrying out online learning in early childhood during the pandemic in order to be able to apply fun methods for children. The training process is carried out in three stages, namely the first stage of initial data collection, the second stage of the training implementation process, and the third stage is the evaluation of the training implementation. The following is a description of the stages of training implementation:

Table 1. Training Implementation Procedure

Activities	Purpose	Procedure	Time Allocation	Tools and Materials

Activities	Purpose	Procedure	Time Allocation	Tools and Materials
Initial Data Retrieval	To get an idea of the problems faced by teachers during online learning in early childhood.	1. Create a *google form* that will be shared via *whatsapp* message to kindergarten teachers 2. The teacher fills out *the goole form* that has been distributed The Facilitator Team analyzes the results of filling out *the Google Form* to then make conclusions related to the problem faced and what is needed by the teacher to overcome the problem	± 1 day	*Google* Early Childhood Learning Form
Training Implementation	1. So that teachers know the appropriate early childhood learning methods to be applied during a pandemic 2. So that teachers understand how to apply fun learning methods for early childhood during a pandemic	1. The facilitator distributes *the google pre-test form* to the participants and accompanies the trainees in the process of filling out the *google form*. 2. Facilitator explains fun learning models for early childhood 3. The facilitator provides examples of learning models through play (motion, song and singing) 4. Facilitators divide participants into small groups according to school origin and ask participants to practice firsthand how to make children's songs and develop fun play learning models according to the material that has been previously provided.	± 2 hours	*Google Form Pretest* PPT Online Learning Projector and Microphone Snack, and lunch

Table 2. Evaluation of Training Implementation

Activities	Purpose	Procedure	Time Allocation	Tools and Materials
Training Evaluation	1. To get an idea of the extent of the trainee's understanding in receiving the material provided 2. To know the success of the training process	1. The facilitator asks participants questions regarding the impressions of participants during the training process, and how obstacles that may arise in direct practice create a model fun online	± 30 minutes	*Google Form Post Test*

that has been given	learning in early childhood during the pandemic. 2. The facilitator shares the *Google Form Post Test* via whatsapp, asks participants to fill in, and accompanies participants during the process of filling out *the google form*		

RESULTS AND DISCUSSION

Table 3. Pretest and Posttest Results

Subject	PreTest	PostTest	Information
1	7	17	+ 7 points
2	6	16	+ 10 points
3	8	18	+ 10 points
4	6	16	+ 10 points
5	7	17	+ 10 points
6	10	19	+ 9 points
7	7	18	+ 11 points
8	9	18	+ 9 points
9	8	17	+ 9 points
10	9	18	+ 9 points
11	8	17	+ 9 points
12	5	16	+ 11 points
13	6	16	+ 10 points
14	7	17	+ 10 points
15	7	15	+ 8 points
16	8	18	+ 10 points
17	9	19	+ 10 points
18	7	17	+ 10 points
19	8	18	+ 10 points
20	8	19	+ 9 points
21	7	17	+ 10 points
22	7	17	+ 10 points
23	7	17	+ 10 points
24	6	16	+ 10 points
25	7	16	+ 9 points
26	10	18	+ 8 points
27	7	17	+ 10 points
28	6	15	+ 9 points
29	7	17	+ 10 points
30	9	18	+ 9 points
31	6	17	+ 11 points
32	7	17	+ 10 points
33	9	19	+ 10 points
34	8	18	+ 10 points
35	9	20	+ 11 points
Total	262	605	+ 343 points

Based on quantitative results regarding the ability possessed by teachers to provide online learning through playing and songs, it was found that the score on the posttest scale after the teacher received training was higher than the pretest scale before the teacher attended the training. The results assume that there is an increase in teacher abilities after attending a series of trainings and then carrying out statistical tests to validate the result. This assumption is not only supported by the acquisition of existing scales, but the course of training also prioritizes the active role of teachers who become trainees to directly try and practice the material provided.

The implementation of the data analysis used is *an independent sample t-test*. Before the analysis is carried out, an assumption test is first carried out which includes a normality test and a homogeneity test. Test data analysis using the computer-aided SPSS Statistics Program Series *15.0 for windows*. The distribution normality test is used to determine whether *the sample* in the study is normally distributed or not. The data is declared normally distributed if $p > 0.05$. The results of the normality test on the variability of training for providing online learning methods through playing and songs obtained *Kolmogorov-Smirnov Z* = 0.145, with significance = 0.059, so it can be concluded that $p = 0.059$; ($p > 0.05$). The results showed that the teacher's ability to provide online learning to early childhood through play methods and songs distribution of variable data on training for providing online learning methods through play and songs met the normal distribution or represented subjects in the population.

The homogeneity test aims to determine whether the pretest and posttest teachers who are participants in providing online learning training through playing and songs come from the same population or not. The homogeneity test is carried out using the *levene's test for equality of variances*, if $p>0.05$ then the data distribution is homogeneous, on the contrary, if $p<0.05$ then the data distribution is not homogeneous. Based on the results of the analysis test above, it is known that the significance value (Sig.) of the training variable for providing online learning methods through play and songs has a value (p) = 0.544 which means it is above $p = >0.05$, it can be concluded that the two samples in the study have the same variant or come from the same sample (homogeneous).

Empirical Mean is a theoretical or actual mean or average value obtained by calculating data from scales / questionnaires that have been distributed in research. Based on the results of the analysis of research data conducted, it was obtained that the average value of the empirical mean (RE) Pretest was 7.4857 and the empiric mean (RE) Posttest was 17.2857. So that it can be concluded that the understanding / ability of teachers after attending online learning training through playing and songs is higher than before attending training.

The results of this community service show that the classification of implementation of online learning training through play and songs provides results that are good, this can be seen from the increase in teacher skills and knowledge related to fun online learning methods for early childhood after attending the training. This condition is known based on quantitative data (in the form of questionnaires), namely the questionnaire filling score that increases between before and after receiving training. In addition to being quantitative, based on observations, it was also seen that there was an increase in the ability to make and convey learning methods through playing and songs owned by participants. This condition is in accordance with the opinion of Hetherington & Parke (in Desmita, 2008), which states that a person is faster in learning something if he does learning activities while practicing it directly (*learning by doing*).

The improvement of ability is because in the series of training provided from the teachers who are the trainees are required and taught to play an active role in making, creating, and trying to practice how the learning method is delivered, so the teachers have experience in making up and deliver and also can be directly applied in the learning to early students in school. Said by Mulyawan (2013) that experience in training is the factor that most affects the professionalism of teachers in the field of study, so teachers in the field of study can make the most of their time to increase knowledge and skills through training.

The results of the training that improve the abilities of participants are also appropriate with the case study conducted by Kandou (2013) that said that the training and development carried out by PT. Manado water has a fairly high impact on work productivity. In addition, this is also suitable with the general objectives in a training as conveyed by Sudaryo (2018) that there are 3 general objectives of research, namely to develop expertise, to develop knowledge, and to develop attitudes. In the training conducted, participants gained experience and development in the skills of making an online learning method that was delivered by playing and songs so that learning objectives were expected to be better absorbed by students even though they had to be carried out online. Participants also get knowledge development such as how to and sequences needed in making and creating to how to convey well-made learning method products. In addition, participants also get attitude development so as to cause a willingness to cooperate with professional friends and with leaders.

Conclusion

The training provided in this community service process, in the form of training on providing online learning to early childhood through play and songs is relatively effective to improve the skills and knowledge of teachers in creating fun online learning methods for early childhood. Based on these conclusions, it is recommended to kindergarten teachers or Early Childhood Education teachers to participate in similar training activities, which aim to increase knowledge and improve teaching skills in early childhood, so that in the learning process teachers can use methods that are suitable for student conditions and fun for children

Recommendations

Based on the problems and field data that have been obtained after the implementation of the training, recommendations can be given, namely that the school is expected to be able to coordinate regularly, especially between class teacher and parent. This aims to create better cooperation between teachers and parents in the learning assistance process provided by parents to children when participating in activities online learning when at home, so that the objectives of learning can be achieved optimally.

Acknowledgement

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