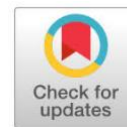


## Husband's social support and weight gain of pregnant mothers



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### ABSTRACT

Weight gain is declared normal when it is appropriate to recommendations, gaining weight outside the recommendations may affect women's pregnancy and there-to-be-born babies such as low birth weight, asphyxia, preeclampsia, blood sugar level increase, prolonged labor, and labor with cesarean section. This study aimed to find out the association between the husband's social support and the weight gain of pregnant mothers. This research is an observational analytical study with a cross-sectional design. This research was conducted in March 2021. The population of this research was the second and third-trimester pregnant mothers in the Public Health Center of Sentolo I. Sampling technique used purposive sampling and obtained 41 samples. Data collection used primary data. Analysis used frequency distribution and chi-square test. The result showed most of the respondents gained a normal amount of weight (51.2%). Amount of 58.5% of pregnant mother respondents received good social support from their husbands. There is an association between the husband's social support and weight gain of pregnant mothers with a p-value of 0.019. The proximity of association between the two variables is in a low category with a value of 0.345 and an RP value of 2.267 (95%, CI 1.030-4.989). The husband's social support has a relationship with the weight gain of pregnant women.

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### INTRODUCTION

Maternal and infant mortality is still becoming an issue that must be concerned and handled optimally. ASEAN Statistical Report on Millennium Development Goals (MDGs) showed that the maternal mortality ratio in Indonesia reached about 305 per 100.000 live births, which was still far from the ASEAN MDGs target.(1) This thing indicates that the public health level, public welfare level, and health service quality are still low.(2)

One of the important factors in pregnancy is nutritional status before pregnancy which will affect mothers and to is born babies. The prevalence of chronic energy deficiency in women of reproductive age in Indonesia in the year based on Basic Health Research (Riskesmas) reached 31.8%. Therefore, weight gain during pregnancy is one of the important factors to maintain a healthy pregnancy and to have healthy childbirth.(3)

An adequate and recommended amount of weight gain is highly required to support a baby's growth thus it could be born normally. Pregnant mothers who gained weight less



than the recommended amount will be associated with an increased risk of having low birth weight and intrauterine growth retardation (IUGR). According to Basic Health Research (Riskesdas) in 2018, the low birth weight percentage in the Special Region of Yogyakarta (DIY) increased from 5.52% in 2018 to 5.7% in 2019.(3) Some research showed the impact of gaining weight outside recommendations to mothers, such as it may affect severe preeclampsia and eclampsia.(4,5) Furthermore, excessive weight gain can cause back pain in pregnant mothers.(6) In the labor process, the excess weight gain may increase the risk of prolonged labor in the opening of the third until finished.(7) Moreover, the risk of labor with cesarean section in the first stage will rise along with the increased gestational weight gain of overweight mothers.(7,8)

Normal weight gain during pregnancy is weight gain in the recommendations. Pre-pregnancy nutritional status becomes the indicator to measure how much a pregnant mother can be declared appropriate in gaining weight during pregnancy.(9) Weight gain outside the recommendations also happened in the Special Region of Yogyakarta Province (DIY) in 2017 in the Public Health Center of Sentolo I, which is a public health center with pregnant mothers whose weight gain outside the recommendations was high enough equal to 61.7%.(10)

Weight gain during pregnancy is associated with several factors as follows: sociodemographic, socioeconomic, and psychological factors derived from age, parity, education, occupation, and social support.(9) Social support is the support given to pregnant mothers by the closest person mainly the husband and can be given in the form of informative support, emotional support, reward support, and instrumental support.(11) Fortune research (2016) showed that there is an influence between husband's support to nutritional status in pregnant mothers with  $p$ -value= 0.026 and OR= 2.909.(12) This research is following Barir's research (2020) which showed one of the determinant factors of pregnant women's nutritional status with OR= 3.72 and  $p$ -value= 0.025.(13)

Based on the description, the author is interested to research "The Association between Husband's Social Support and Weight Gain of Pregnant Mothers in Public Health Center of Sentolo I in 2021". This research aims to find out the association between a husband's social support and the weight gain of pregnant mothers in the Public Health Center of Sentolo I in 2021.

## METHOD

This research was an observational analytical study with a cross-sectional design. This research was conducted in the Public Health Center of Sentolo I, Kulon Progo in March 2021. The population of this research was the second trimester and third-trimester pregnant women in the Public Health Center of Sentolo I. The total sample used was 41 respondents that have been selected based on inclusion and exclusion criteria. The inclusion criteria for this study included pregnant women with a gestational age of 17 – 42 weeks in the working area of the Sentolo I Health Center, willing to be research respondents as evidenced by agreeing to give informed consent, having an MCH handbook, aged 21 – 35 years, several children 3, education last at least high school, have communication tools or access to access questionnaires. Exclusion criteria in this study included pregnant women with Gemelli pregnancies, pregnant women suffering from comorbidities such as hyperemesis gravidarum, gestational diabetes, preeclampsia, HIV, tuberculosis, hepatitis B, and hepatitis C, pregnant women with mental health disorders, pregnant women who did not have a husband or does not live with her husband in the same house (husband works outside the city). Technique sampling in this research used the purposive sampling technique. This research was conducted after being approved by obtaining research ethical approval from Health Research Ethics Commission (KEPK) Poltekkes Kemenkes Yogyakarta with letter number e-KEPK/POLKESYO/0169/II/2021 by the date of 25th February. Research data was primary data obtained through questionnaires filled out directly by respondents. Data

analysis was carried out quantitatively using univariate analysis and bivariate analysis using the chi-square test with a 95% confidence level and  $\alpha = 0.05$ .

## RESULTS

Table 1. Frequency Distribution of Respondents according to Weight Gain of Pregnant Mothers

Pregnant Mother's Weight Gain	Frequency	Percentage (%)
Normal	21	51.2
Abnormal	20	48.8
Total	41	100

Table 1 showed that from a total of 41 second and third-trimester pregnant mothers, most of mothers gained normal weight.

Table 2. Frequency Distribution of Respondents according to Husband's Social Support and Component Aspects of Husband's Social Support

Husband's Social Support	Good		Bad		Total	
	n	(%)	N	(%)	n	(%)
	<b>24</b>	<b>58.5</b>	<b>17</b>	<b>41.5</b>	<b>41</b>	<b>100</b>
Information Support	22	53.7	19	46.3	41	100
Instrumental Support	31	75.6	10	24.4	41	100
Emotional Support	34	82.9	7	17.1	41	100
Reward Support	24	58.5	17	41.5	41	100

Table 2 showed that from a total of 41 second and third-trimester pregnant mothers, most mothers who received a good husband's social support are 58.5%, and mothers who received a bad husband's social support are 41.5%. According to the component of the husband's social support, more pregnant mothers received good husbands' social support from their husbands.

Table 3. The Correlation between Husband's Social Support and Weight Gain of Pregnant Mothers

Variable	Weight Gain				Total n	p-value	RP	CI 95%		CC	
	Normal		Abnormal					Lower	Upper		
	n	(%)	n	(%)	(%)	(%)					
<b>Husband's Social Support</b>											
Good	16	66.7	8	33.3	24	100	0.019	2.267	1.030	4.989	0.345
Bad	5	29.4	12	70.6	17	100					
Total	21	51.2	20	48.8	41	100					

Based on Table 3, pregnant mothers who gained normal weight at a total of 21 persons (51.2%) are more experienced than pregnant mothers who received a good husband's social support by 66.7%, than pregnant mothers who received a bad husband's social support by 29.4%. Whereas pregnant mothers who gained abnormal weight at a total of 20 persons (48.8%) are more experienced by pregnant mothers who received bad husband's social support by 70.6%, than by pregnant mothers who received good husband social support by 33.3%. Husband's social support had a p-value= 0.019 which means that there is an association between a husband's social support and weight gain in pregnant mothers, mothers who received a good husband's social support have a chance to gain normal weight by RP=2.267 times greater than mothers who received bad husband's social support. The proximity of association between the husband's social support and weight gain of pregnant mothers is shown by the result of CC= 0.345, thus it can be concluded that the level of association between the husband's social support and weight gain of pregnant mothers is low.

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## DISCUSSION

The research result indicates that there is an association between the husband's social support and weight gain of pregnant mothers with a p-value of 0.019 and correlation coefficient value of 0.345 and a prevalence ratio of 2.267. The research result is following the research conducted by Barir in Jombang which stated that there is an association between husband's support and nutrition for pregnant mothers. Mothers who received support from their husbands have 3.7 times more chance to achieve normal nutritional status than mothers who received lack support from their husbands. This showed that the husband's support has a significant role in the family increase increasing the nutritional status of pregnant mothers.(13)

The occurrence of nutritional problems in pregnant mothers is commonly caused by unbalanced dietary habits, to meet nutritional requirements during pregnancy a woman should have strong motivation, attention, affection, support, and health information from the closest person.(14) The research conducted by Sellii in the Public Health Center of Gamping I showed that the better the support given to the wife, the better the pregnant mother's behavior in consuming a balanced nutritional meal.(15) Therefore, every pregnant mother needs social support from surrounding people. Social support is one of the factors inside every individual that can determine a person's health behavior. What is meant in this case is to maintain weight gain during pregnancy. Social support can be obtained from significant others namely husbands, children, parents, family members or relatives, and close friends. People who get social support will experience positive things in their lives, have self-esteem, and have a more optimistic point of view. The aspects of social support consist of information support, emotional support, instrumental support, and reward support.(11,16,17)

The same thing was stated by Sokoya (2014) in the research found that the husband's support in prenatal care is the key factor in supporting a pregnant mother's health, which if inadequate could lead to an increase in maternal death by gestational hypertension, abortion complication, postpartum hemorrhage, obstructed labor, and postpartum psychosis. The type of support commonly offered to pregnant mothers includes bringing some water, bringing a nutritional meal, planning and accompanying mothers to prenatal care visits, advising mothers to not carry heavy loads, provide monetary resources for transportation and medical expenses. These types of support may encourage the wives to reduce physical stress and provide them with emotional security.(18,19)

These aspects of social support included information, emotional, instrumental, and reward support. The results of the frequency distribution test in Table 2 show that the support for information from husbands to wives who are pregnant at the Sentolo I Health Center is still low at 46.3%. Giving orders should be changed to advising so that mothers can decide whether to try or not. It will allow mothers to perceive the authority to control the situation and be trusted so that mothers retrieve their self confident again. If this support is not given to the mothers, all the negative feelings will give an impact on mothers' behavior in maintaining their dietary habits and total weight gain.(16,20) According to Rahmawati in 2019, pregnant mothers who received a lack of information support had a 4 times greater chance of experiencing anemia compared to pregnant mothers who received a good type of information support, which this support would help mothers to find the right alternative for their problem-solving. Information is highly required by first-time pregnant mothers considering what they are experiencing is a new phase in their lives. (21)

The biggest support obtained by pregnant women at the Sentolo I Health Center according to Table 1 was obtained from emotional support 82.9%. Emotional support is an important factor to accomplish developmental tasks. The fulfillment of family emotional support will increase the human quality, personality stability, behavior, and self-esteem of family members. It means that the better emotional support received by the pregnant mothers, the better their quality of life, self-esteem, and behavior concerning their health so

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they would not experience health issues including weight gain outside the recommendations.(21)

A similar result is also reinforced by the research conducted by Melati in the Public Health Center of Kasim Riau with a total sample of 80 people. Data from the research was analyzed with a product-moment correlation which obtained a correlation coefficient of 0.781 ( $p < 0,01$ ). (22) The result showed that there is a positive correlation between pregnant mothers' motivation and the amount of weight gain during pregnancy. Research by Manikin in the Public Health Center of Kayumanis also proved that motivation gives a good influence on the weight gain of pregnant mothers by 13.38%. (23) Motivation may come from within a person which is often known as internal motivation or intrinsic motivation, and come from outside the person known as external motivation or extrinsic motivation. (24) Extrinsic motivation can be influenced by family support like husbands, and parents' good family members' support or encouragement will strengthen mothers' motivation to give the best for their health. (25)

Sudirman, Puspitawati, and Muflikhati's (2019) research also reinforces this research where the husband's support influences the nutritional status of pregnant mothers due to the powerful support from the husband that can improve mothers' welfare both during pregnancy and after birth. (26) This showed that the husband's support has an important role in the family to improve the nutritional status of pregnant mothers as weight gain and hemoglobin level during pregnancy. A similar thing is reinforced with the research conducted in Gianyar Regency, Bali where mothers with a low husband's support experienced moderate anxiety and severe anxiety compared to the mothers whose strong support. (27) Mild anxiety is expected so that pregnant mothers become happy and live their pregnancy stages calmly thus mothers can be motivated to maintain a healthy pregnancy.

## CONCLUSION

Based on this research, it can be concluded that the husband's social support has a relationship with the weight gain of pregnant women. The husband's social support that can be provided to pregnant women can be in the form of informational support, instrumental support, emotional support, and reward support. The greatest support that pregnant women get is emotional support.

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