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QUALITY OF LIFE DURING PREGNANCY: A COMPARATIVE STUDY BETWEEN URBAN AND RURAL AREAS IN INDONESIA

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ABSTRACT

Assessing quality of life during pregnancy is vital to find timely preventive measures against pregnancy complications. The quality of life during pregnancy determines pregnant women's health. This study aims to identify the differences in the quality of life during pregnancy who participated in antenatal care (ANC) visits in primary healthcare centers in rural and urban areas. This study used a cross-sectional design and collected data through survey. The research population was 800 pregnant women who participated in ANC in three primary healthcare centers in urban areas and three others in rural areas. The quality of life during pregnancy questionnaire was used for data collection. The analysis was done using the *Chi-square* test and ordinal regression. Results showed no difference in the quality of life during pregnancy between women in urban areas and those in rural areas. Some factors that affected the quality of life during pregnancy included education, fetal age, number of pregnancies, number of live children, and pregnancy plans in women living in urban areas. Meanwhile, in women living in rural areas, the quality of life during pregnancy was affected by education level, occupation, fetal age, number of pregnancies, number of live children, and pregnancy plans. There are influences of age, education level, occupation, gestational age, number of pregnancies, number of living children, and pregnancy plans on the quality of life of pregnant women in rural areas.

Kata kunci:
kehamilan,
kualitas hidup,
perkotaan,
perdesaan,
Indonesia

ABSTRAK

Menilai quality of life selama kehamilan sangat penting untuk menemukan tindakan pencegahan tepat waktu terhadap komplikasi kehamilan. Kualitas hidup selama kehamilan menentukan kesehatan ibu hamil. Penelitian ini bertujuan untuk menganalisis perbedaan kualitas hidup kehamilan pada wanita yang berpartisipasi dalam program pemeriksaan kehamilannya (ANC) di Puskesmas perkotaan dan perdesaan. Penelitian ini menggunakan desain potong lintang dan mengumpulkan data melalui survei. Populasi penelitian, yaitu 800 ibu hamil yang memeriksakan kehamilannya di tiga puskesmas di perkotaan dan tiga puskesmas di pedesaan. Pengumpulan data dilakukan dengan menggunakan kuisoner kualitas hidup. Analisis data dilakukan dengan menggunakan uji Chi-square dan regresi ordinal. Hasil menunjukkan bahwa tidak ada perbedaan status kualitas hidup ibu hamil di perkotaan dan perdesaan. Ada pengaruh tingkat pendidikan, usia kehamilan, jumlah kehamilan, jumlah anak hidup, dan rencana kehamilan terhadap kualitas hidup ibu hamil di perkotaan. Sedangkan pada wanita yang tinggal di perdesaan, kualitas hidup selama hamil dipengaruhi oleh tingkat pendidikan, pekerjaan, usia janin, jumlah kehamilan, jumlah anak hidup, dan rencana kehamilan. Terdapat pengaruh umur, tingkat pendidikan, pekerjaan, umur kehamilan, jumlah kehamilan, jumlah anak hidup, dan rencana kehamilan terhadap kualitas hidup pada ibu hamil di pedesaan.

INTRODUCTION

The World Health Organization (WHO) stated that quality of life is people's assessment of their position in life in the context of the culture and value system in which they live, related to goals, a combination of aspects of physical, psychological (mental) health, level of self-confidence, social relationships, personal beliefs and their relationships to the environment (1). Quality of life (QOL) is the effort to reach the top quality of life (2). A study stated that quality of life is the degree to which a life meets life standards (3).

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Pregnancy and childbirth involves a biological and social process that carries health risk (4). However, pregnancy and childbirth involve chemical, biological, physiological, hormonal, and anatomical changes in the woman's body during pregnancy. Emotional and physical changes also occur during pregnancy. The changes might make them physically and mentally vulnerable, and they likely affect well-being of pregnant women (5). Pregnancy poses risks to women themselves and the baby they bear (6).

Quality of life measures are designed to enable patients' perspectives on the impact of health and healthcare interventions on their lives to be assessed and taken into account in clinical decision making and research (7). Assessing pregnancy quality of life is important in terms of timely preventive measures during pregnancy. It should lead to an increase in the quality of care for pregnant women and their well-being, emphasizing pregnant women's health (8). Management and healthcare teams need to understand the value of QOL assessments in promoting person-centered care and their responsibility in having these discussions with their patients (9).

The research shows no difference in self-perceived mental and physical health between pregnant women in urban and rural areas (6). Pregnant women in urban areas consider their health better than those in rural areas, except physical aspect, body pain, and social aspect. However, the only significant differences between the two groups were on role limitation due to physical problems, general health perceptions, and role limitation due to emotional problems (6). However, tested with the generic SF-36 assessment tool, pregnant women in rural areas showed better scores in health-related quality of life (HRQOL) than those in urban areas. Self-perceived mental and physical health is better in pregnant women in rural areas than those in urban areas (10).

Regarding the previous findings, this study further analyzed differences in the quality of life according to physical health, mental health, social and environmental health. Furthermore, it identified whether the characteristics of pregnant women influence the quality of life during pregnancy.

METHODS

This study employed a cross-sectional design and a survey for collecting data. The research population was pregnant women who participated in an antenatal care (ANC) program in three primary healthcare centers in urban areas and three primary healthcare centers in rural areas. The sample size was determined by the following equation (11):

$$n = \frac{Z^2_{1-\frac{\alpha}{2}} P(1-P)N}{d^2(N-1) + Z^2_{1-\frac{\alpha}{2}} P(1-P)}$$

The overall number of samples was 400 pregnant women in urban areas and 400 others in rural areas. Data were collected using the questionnaire on the quality of life, which consist of three factors, 16 aspects, and 46 items. The Pregnancy Quality of Life instrument is a new instrument to measure the quality of life of pregnant women, which was developed in Indonesia in 2019.

Interviews were conducted with pregnant women who participated in ANC at the primary healthcare centers. The data collection took one month. Data processing and analysis were done using cross-tabulation or *Chi-square* test.

The *Chi-square* test was used to determine differences in socio-demographic characteristics and quality of life during pregnancy between pregnant women in rural areas and those in urban areas. Meanwhile, ordinal regression test was used to find the effect of the characteristics on the quality of life between the groups. The research has been stated to meet the ethical requirement by the Research Ethics Commission in Faculty of Public Health, Universitas Airlangga, Indonesia with the letter no. 553/EA/KEPK/2018.

RESULTS

Socio-demographic Characteristics of Pregnant Women in Urban and Rural Areas

Most of the respondents in both areas had almost the same characteristics. They were 1) in the age of 20-35 years; 2) graduated from high school; 3) were unemployed; 4) had one live child; 5) had been pregnant twice; 6) were

in the 3rd trimester at the time of the study; 7) had planned the baby; 8) wanted the baby; and 9) lived in an extended family.

The mean age of pregnant women in urban areas was 28.83 years in which the youngest was 14 years and the oldest was 42 years. Meanwhile, those in rural areas had the mean age of 27.94, in which the youngest was 15 years and the oldest was 43 years.

The average schooling period of pregnant women in urban areas was 12.08 years, in which the shortest was five years and the longest was 19 years. Meanwhile, the average schooling period of pregnant women in rural areas was 10.54 years, in which the minimum period was two years and the maximum was 16 years.

The average number of living children from pregnant women in urban areas is 1.02, with a minimum number of biological children at zero and a maximum number of biological children at five. Meanwhile, the average number of living children from pregnant women in rural areas was 0.87, with a minimum number of biological children being zero and a maximum number of biological children being three.

The average number of pregnancies that pregnant women in urban areas had was 2.16, in which the minimum was one pregnancy and the maximum was eight pregnancies. Meanwhile, pregnant women in rural areas on average had 1.95 pregnancies, and they had minimally been pregnant once and maximally three times.

The *Chi-square* analysis results showed almost no difference in socio-demographic characteristics of pregnant women in rural and urban areas as indicated by p values which were mostly >0.05. Only education level had a p value of <0.05 (p=0.024). It means there was a difference in education level between pregnant women in urban and rural areas (Table 1).

Table 1. Socio-demographic Characteristics and Quality of Life in Pregnant Women in Rural and Urban Areas

Socio-demographic Characteristics	Urban	Rural	p (<0.05)
Age			0.230
<20 years	20 (5.0)	34 (8.5)	
20-35 years	313 (78.3)	319 (79.8)	
> 35 years	67 (16.8)	47 (11.8)	
Education level			0.024*
Not passed primary school	2 (0.5)	1 (0.3)	
Primary school	17 (4.3)	42 (10.5)	
Fist high school	74 (18.5)	154 (38.5)	
High school	207 (51.7)	172 (43.0)	
College	100 (25.0)	31 (7.8)	
Work status			0.814
Does not work	231 (57.8)	302 (75.5)	
Work	169 (42.3)	98 (24.5)	
The number of children alive (parity)			0.646
No child	122 (30.5)	139 (34.8)	
One child	181 (45.3)	190 (47.5)	
Two children	71 (17.8)	54 (13.5)	
> two children	26 (6.5)	17 (4.3)	
The number of pregnancies (gravidity)			0.794
One time	110 (27.5)	122 (30.5)	
Twice	174 (43.5)	176 (44.0)	
> twice	116 (29.0)	102 (25.5)	
Gestational age			0.909
1st trimester	80 (20.0)	55 (13.8)	
2nd trimester	140 (35.0)	147 (36.8)	
3rd trimester	180 (45.0)	198 (49.5)	

Socio-demographic Characteristics	Urban	Rural	p (<0.05)
Currently planned pregnancy			0.494
No	169 (42.3)	108 (27.0)	
Yes	231 (57.8)	292 (73.0)	
Desired pregnancy			1.000
No	3 (0.8)	5 (1.3)	
Yes	397 (99.3)	395 (98.8)	
Types of family			0.151
Nuclear family	190 (47.5)	154 (38.5)	
Extended family	210 (52.5)	246 (61.5)	

Note : * statistically significant

Table 2. Quality of Life of Pregnant Women in Urban and Rural Areas

Quality of Life of Pregnant Women	Urban n (%)	Rural n (%)	p (<0.05)
Physical health			0.509
Low	63 (15.8)	63 (15.8)	
Moderate	274 (68.5)	266 (66.5)	
High	63 (15.8)	71 (17.8)	
Mental health			0.182
Low	63 (15.8)	51 (12.8)	
Moderate	264 (66.0)	274 (68.5)	
High	73 (18.3)	75 (18.8)	
Social and environmental factors			0.445
Low	97 (24.3)	104 (26.0)	
Moderate	108 (27.0)	125 (31.3)	
High	195 (48.8)	171 (42.8)	

Quality of Life for Pregnant Women in Urban and Rural Areas

The *Chi-square* analysis of all factors of the quality of life of pregnant women shows no difference between the quality of life of pregnant women in urban and rural areas. However, there is a tendency for pregnant women in rural areas to have a slightly higher quality of life for physical health and function factors than pregnant women in urban areas. There is also a tendency for pregnant women in rural areas to have a slightly higher quality of life for Mental Health and Function Factors than pregnant women in urban areas. As for the Social and Environmental Function Factors, pregnant women in urban areas tend to have a slightly higher quality of life than those in rural areas (Table 2).

The Effect of Socio-demographic Characteristics on the Quality of Life in Pregnant Mothers in Urban Areas

The ordinal regression analysis results confirmed that pregnancy planning in relation to physical health affected the quality of life in pregnant women in urban areas (p=0.004). There was an effect on the number of pregnancies with the function and mental health factors, the quality of life for pregnant women in urban areas (p=0.039). Gestational age (trimester) in relation to mental health also had an effect on the quality of life during pregnancy (p=0.035). There was an effect of pregnancy planning with the functional factors and mental health quality of life for pregnant women in urban areas (p = 0.004).

Moreover, education level along with social and environmental factors affected the quality of life during pregnancy in pregnant women in urban areas (p=0.025). Gestational age (trimester) along with social and environmental factors also affected the quality of life during pregnancy in pregnant women in urban areas (p=0.014). The number of live children along with social and environmental factors affected the quality of life in pregnant women in urban areas (p=0.000; p=0.013; p=0.008, respectively). Additionally, pregnancy plan along with social and environmental factors had an effect on the quality of life during pregnancy in urban areas (p=0.005) (Table 3).

The Effect of Socio-demographic Characteristics on the Quality of Life in Pregnant Mothers in Rural Areas

The results of ordinal regression analysis confirmed that number of pregnancy had an effect on function and physical health factors of the quality of life in pregnant women in rural areas (p=0.003). Besides, the age of pregnant woman had an effect on function and mental health of the quality of life in pregnant women in rural areas (p=0.004). The number of children alive had an effect on functional and mental health factor of the quality of life during pregnancy (p=0.001).

Educational level affected function and mental health of quality of life in pregnant women in rural areas (p=0.013; p=0.011; p=0.012, respectively). Work status affected function and mental health factors of the quality of life during pregnancy in women in rural areas (p=0.027). Gestational age (trimester) along with mental health and function factors impacted on the quality of life (p = 0.018; p = 0.046). The number of pregnancies affected social and environmental factors on the quality of life during pregnancy in women in rural areas (p=0.00).

Employment along with social and environmental factors affected the quality of life during pregnancy (p=0.028). Gestational age (trimester) with social and environmental factors had an effect on the quality of life during pregnancy in pregnant women in rural areas (p=0.004). Pregnancy plans along with social and environmental factors affected the quality of life during pregnancy (p=0.00) (Table 4).

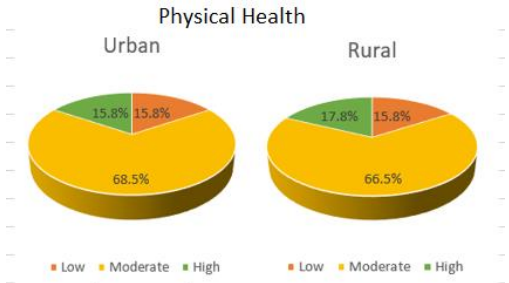

Figure 1. Physical Health Quality of Life of Pregnant Women

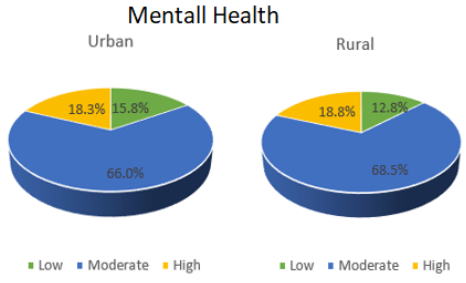

Figure 2. Mental Health Quality of Life of Pregnant Women

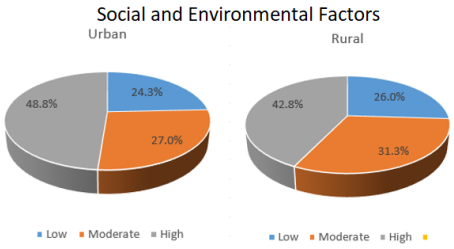

Figure 3. Social and Environmental Factors Quality of Life of Pregnant Women

Table 3. The Effects of Parameter Estimates on Quality of Life

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[A_category = 1]	-1,447	.157	85,406	1	.000*	-1,753	-1,140
	[A_category = 2]	1,974	.178	122,824	1	.000*	1,625	2,323
Location	[Pregnancy_plan = 0]	.632	.219	8,309	1	.004*	.202	1,062
	[Pregnancy_plan = 1]	0a	.	.	0	.	.	.
Threshold	[B_category = 1]	-1,549	.283	29,893	1	.000*	-2,105	-994
	[B_category = 2]	2,332	.315	54,943	1	.000*	1,716	2,949
Location	[Pregnant_count = 1]	2,442	.324	56,841	1	.000*	1,807	3,077
	[Pregnant_count = 2]	.553	.268	4,254	1	.039*	.027	1,078
	[Pregnant_count = 3]	0a	.	.	0	.	.	.
	[Trimester = 1]	-.608	.288	4,455	1	.035*	-1,173	-.043
	[Trimester = 2]	-126	.242	.270	1	.604	-.601	.349
	[Trimester = 3]	0a	.	.	0	.	.	.
	[Pregnancy_plan = 0]	-652	.223	8,521	1	.004*	-1,089	-214
	[Pregnancy_plan = 1]	0a	.	.	0	.	.	.
Threshold	[C_category = 1]	-,680	.457	2,220	1	.136	-1,575	.215
	[C_category = 2]	.634	.457	1,926	1	.165	-261	1,528
Location	[Education = 1]	-1,474	1,479	.993	1	.319	-4,372	1,424
	[Education_ degree = 2]	-712	.501	2,021	1	.155	-1,694	.270
	[Education_ degree = 3]	-,667	.297	5,055	1	.025*	-1,249	-.086
	[Education_ degree = 4]	.212	.238	.789	1	.374	-256	.679
	[Education_degree = 5]	0a	.	.	0	.	.	.
	[Trimester = 1]	-644	.263	6,011	1	.014*	-1,158	-129
	[Trimester = 2]	-316	.223	1,999	1	.157	-753	.122
	[Trimester = 3]	0a	.	.	0	.	.	.
	[Number of children = 0]	1,532	.435	12,390	1	.000*	.679	2,386
	[Number of children = 1]	.903	.420	4,633	1	.031*	.081	1,726
	[Number of children = 2]	1,196	.451	7,029	1	.008*	.312	2,080
	[Number of children = 3]	0a	.	.	0	.	.	.
	[Pregnancy_plan = 0]	-.574	.204	7,900	1	.005*	-0,975	-174
	[Pregnancy_plan = 1]	0a	.	.	0	.	.	.

Note : * statistically significant

Table 4. The Effect of Parameter Estimates on the Quality of Life during Pregnancy in Pregnant Women in Rural Areas

		Estimates	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[A_category = 1]	-1946	.236	68,153	1	.000*	-2,409	-1,484
	[A_category = 2]	1,390	.219	40,225	1	.000*	.960	1,820
Location	[Pregnant_count = 1]	-863	.286	9,100	1	.003*	-1,424	-302
	[Pregnant_count = 2]	.133	.261	.260	1	.610	-378	.644
	[Pregnant_count = 3]	0a	.	.	0	.	.	.
Threshold	[B_category = 1]	-1,715	.725	5,587	1	.018*	-3,136	-293
	[B_category = 2]	2,082	.727	8,213	1	.004*	.658	3,506
Location	[Mother's Age_1 = 1]	-1,606	.560	8,235	1	.004*	-2,702	-.509
	[Mother's Age_1 = 2]	-1,084	.371	8,520	1	.004*	-1,812	-356

		Estimates	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
	[Mother's Age_1 = 3]	0a	.	.	0	.	.	.
	[Number of children s = 0]	2,084	.608	11,728	1	.001*	.891	3,276
	[Number of children = 1]	.709	.563	1,583	1	.208	-395	1,813
	[Number of children = 2]	.117	.610	.037	1	.847	-1,078	1,313
	[Number of children = 3]	0a	.	.	0	.	.	.
	[Education_degree = 1]	2,215	2,318	.913	1	.339	-2,328	6,759
	[Education_ degree = 2]	1,385	.557	6,182	1	.013*	.293	2,476
	[Education_ degree = 3]	1,159	.456	6,452	1	.011*	.265	2,053
	[Education_ degree = 4]	1,106	.443	6,241	1	.012*	.238	1,973
	[Education_ degree = 5]	0a	.	.	0	.	.	.
	[Mother_Work = 0]	-.589	.266	4,905	1	.027*	-1,110	-.068
	[Mother_Work = 1]	0a	.	.	0	.	.	.
	[Pregnancy Trimester = 1]	-802	.340	5,568	1	.018*	-1,468	-136
	[Pregnancy Trimester = 2]	-.476	.238	3,986	1	.046*	-0,943	-009
	[Pregnancy Trimester = 3]	0a	.	.	0	.	.	.
Threshold	[C_category = 1]	-1,492	.287	27,004	1	.000*	-2,055	-0,929
	[C_category = 2]	-.029	.277	.011	1	.918	-.571	.514
Location	[Pregnant_count = 1]	1,040	.264	15,544	1	.000*	.523	1,558
	[Pregnant_count = 2]	.451	.240	3,517	1	.061	-.020	.922
	[Pregnant_count = 3]	0a	.	.	0	.	.	.
	[Mother_Work = 0]	-.503	.229	4,827	1	.028*	-952	-.054
	[Mother_Work = 1]	0a	.	.	0	.	.	.
	[Trimester = 1]	-854	.294	8,456	1	.004*	-1,430	-278
	[Trimester = 2]	-377	.208	3,277	1	.070	-786	.031
	[Trimester = 3]	0a	.	.	0	.	.	.
	[Pregnancy_plan = 0]	-857	.219	15,357	1	.000*	-1,286	-429
	[Pregnancy_plan = 1]	0a	.	.	0	.	.	.

Note : * statistically significant

DISCUSSION

There was a difference in socio-demographic characteristics among pregnant women in rural areas and urban areas. Research in India found variations in socio-demographic characteristics among pregnant women in rural and urban areas (12).

There was no difference in the quality of life between pregnant women in urban and rural areas. Research in Islamabad, Pakistan, showed no difference in all health parameters of quality of life between pregnant women in urban and rural areas. Pregnant women in urban areas had better health status than pregnant women in rural areas, except physical health, and social factor. However, differences were found in terms of limited role, physical health, general health perceptions, in correlation with emotional health (6). However, research in Pakistan showed pregnant women in rural areas exhibited higher health-related quality of life (HRQOL) than those in urban areas. Self-perceived physical or mental health was higher in pregnant women in rural areas than those in urban areas (10).

Quality of Life in Pregnant Women in Urban Areas

Pregnancy plans, number of pregnancies, gestational age, education level, number of living children, affect the quality of life of pregnant women in urban areas. Pregnant women who did not plan a baby had a lower quality of life than those who planned a baby. Pregnancy of less than three is likely to result in a higher quality of life than more than three in pregnant women in urban areas. The results of this study are in accordance with a research in Jordan which also found that parity

has a significant influence on the quality of life of pregnant women. Women with high parity have a lower quality of life than those with low parity (13).

The results of this study are also in accordance with research in the Northeast of Brazil which states that parity is a predictor that has a positive effect on the quality of life during pregnancy (14). A literature review stated that one of the main factors associated with a better quality of life during pregnancy is primiparity (15). The results of this study may be due to the fact that mothers who experience more pregnancies may have faced many complications during pregnancy. Mothers in their third trimester feel less worried about their pregnancy and themselves. They are more ready to accept and prepare for physical and mental changes, so they have a better quality of life. Mothers in urban areas are more likely to be prepared, and thus have a better quality of life. In addition, planned pregnancies are often eagerly awaited by all family members, so that mothers receive more support.

Pregnant women in urban areas with a younger gestational age will likely have a lower quality of life compared to pregnant women with a third trimester of pregnancy. Urban pregnant women who plan their pregnancies will are likely to have a higher quality of life compared to pregnant women who do not plan their pregnancies. Pregnant women in urban areas have a lower level of education than in college. Pregnant women in urban areas who raise less than three children have a better quality of life than those who have more than three children. Mothers who are not planning a baby will most likely not have a good quality of life.

The results of this study are in accordance with research in Iran which states that the number of pregnancies (gravidity), gestational age, pregnancy plans, and maternal education affects the quality of life during pregnancy (16). However, the results of this study are not in accordance with research in North Jordan which found different results where pregnancy planning, gestational age, and maternal education had no effect on the quality of life during pregnancy (13).

The results in this study may be due to mothers with low education tend to have less extensive social relationships, and thus they have a lower quality of life. They also have less access to information than mothers with higher education. It is likely that pregnant women with low education also receive low social support from their families and close people. The smaller number of living children provides a lighter burden for mothers to take care of them so that their quality of life is better. It also reduces household spending on food, clothing, education costs, and health costs.

Quality of Life in Pregnant Women in Rural Areas

The number of pregnancies, maternal age, number of living children, education level, employment status, gestational age, or pregnancy plans affects the quality of life of pregnant women in rural areas. Fewer than three pregnancies resulted in a higher quality of life compared to more than three pregnancies. Pregnant women aged less than 35 years have a lower quality of life compared to those aged >35 years.

The results of this study are in accordance with a research in Iran which found that the number of pregnancies (gravidity) and maternal age affect the quality of life during pregnancy (16). However, the results of this study are not in accordance with a research in North Jordan which showed different findings where maternal age did not affect the quality of life during pregnancy. However, parity affects the quality of life during pregnancy (13).

Pregnant women who have fewer pregnancies have a better quality of life. Pregnant women who are more than 35 years old tend to have more pregnancy experiences so they have a better quality of life. They already know what to prepare for and what to do during pregnancy. They are better prepared physically, mentally, and socially. Pregnant women in rural areas have a lighter burden of caring for less than three children so that they have a better quality of life. They can spend time resting and caring for the pregnancy. In addition, fewer children are covered, reducing household spending on food, clothing, education, and children's health needs. Family financial resources are used to finance the needs of pregnancy and childbirth.

Pregnant women with low education have a lower quality of life than those with higher education. Pregnant women who do not

have jobs have a lower quality of life compared to those who work. Furthermore, pregnant women whose gestational age is younger have a lower quality of life compared to pregnant women who are in the third trimester. The results of this study are in accordance with a research in Iran which found that education level, gestational age, and pregnancy plans affect the quality of life during pregnancy (16). However, the results of this study are not in accordance with the research in North Jordan which showed different findings in which the level of education, occupation, gestational age, and pregnancy plans did not affect the quality of life during pregnancy. However, parity affects the quality of life during pregnancy (13). Pregnant women in rural areas with higher levels of education have a greater chance of getting information about pregnancy, so they have a better quality of life. Pregnant women who work have more authority to use financial resources. Rural pregnant women who are pregnant until the third trimester tend to feel less worried about themselves and their pregnancy. Pregnant women in rural areas who have planned their babies have prepared for their pregnancy needs so that they have a better quality of life.

CONCLUSION AND SUGGESTION

Conclusion

This study concluded nearly no difference in parameters between pregnant women in urban and rural areas. There are only differences in the characteristics of education levels between pregnant women in urban and rural areas. Besides, physical health, mental health, social and environmental factors of pregnant women in rural areas were not different from those in urban areas. The number of live children (parity), education level, gestational age, the number of pregnancies (gravidity), and pregnancy plans have an effect on the quality of life in pregnant women in urban areas. Meanwhile, the number of pregnancies (gravidity), age, the number of live children (parity), education level, mother's occupation, gestational age, or pregnancy plans had an effect on the quality of life in pregnant women in rural areas.

Suggestion

Pregnant women in urban areas should pay more attention to the number of children, education level, gestational age, the number of pregnancies, and pregnancy plans to improve the quality of life. Meanwhile, those in rural areas need to consider the number of pregnancies (gravidity), age, the number of live children (parity), education level, mother's occupation, gestational age, and pregnancy plans.

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