

Relationship between Loneliness, Social Support and Readiness for Hygienic Care of the Newborn in Pregnant Women

Gebelerde Yalnızlık, Sosyal Destek ve Yenidoğanın Hijyenik Bakımına Hazır Oluşluk Arasındaki İlişkinin İncelenmesi

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ABSTRACT

Objective: In the study, we aim to examine the relationship between loneliness, social support, and readiness to hygienic care for newborns in pregnant women.

Materials and Methods: The descriptive, cross-sectional and correlational study was conducted on primigravida pregnant women (n=254). The data were collected by using Questionnaire Form, the UCLA Loneliness Scale (UCLA), the Multidimensional Scale of Perceived Social Support (MSPSS), and the Scale for Readiness of Pregnant Women to Hygienic Care of the Newborn (SRPWHCN) were evaluated with Pearson correlation analysis.

Results: Median NO2 levels for all countries decreased between 1-The mean age of the pregnant women was 25.75±4.64. A significant relationship was found between various descriptive characteristics of the pregnant women and the scales. It was determined that there was a significant negative relationship between MSPSS and some sub-dimensions and UCLA of the pregnant women (p<0.05). There was a negative relationship between the mean scores of the UCLA and SRPWHCN of the pregnant women and a positive relationship between the mean scores of the MSPSS and SRPWHCN.

Conclusions: It was observed that the risk of loneliness increased as social support decreased in pregnant women and their readiness for hygienic care of their newborns decreased as their level of loneliness increased.

Keywords: Hygienic care, loneliness, newborn, pregnancy, social support

ÖZ

Amaç: Bu çalışmada gebelerde yalnızlık, sosyal destek ve yenidoğanın hijyenik bakımına hazır oluşluğu arasındaki ilişkinin incelenmesi amaçlanmıştır.

Materyal ve Metot: Tanımlayıcı, kesitsel ve ilişki arayıcı desende tasarlanan çalışma, primigravida gebeler (n=254) ile yürütülmüştür. Soru Formu, UCLA Yalnızlık Ölçeği (UCLA), Çok Boyutlu Algılanan Sosyal Destek Ölçeği (ÇBASDÖ) ve Gebelerin Yenidoğanın Hijyenik Bakımına Hazır Oluş Ölçeği (YHBHÖ) kullanılarak toplanan veriler Pearson korelasyon analizi ile değerlendirilmiştir.

Bulgular: Çalışmaya katılan annelerin yaş ortalaması 25,75±4,64 idi. Araştırmaya katılan gebelerin çeşitli tanıtıcı özellikleri ile ölçekler arasında anlamlı ilişki olduğu saptanmıştır. Araştırmaya katılan gebelerin ÇBASDÖ ve aile, arkadaş alt boyutları ile UCLA arasında negatif yönde anlamlı bir ilişki olduğu belirlenmiştir (p<0,05). Araştırmaya katılan gebelerin UCLA ile YHBHÖ puan ortalamaları arasında negatif yönde ve ÇBASDÖ ile YHBHÖ puan ortalamaları arasında pozitif yönde anlamlı derecede bir ilişki bulunmaktadır.

Sonuç: Gebelerde sosyal destek azaldıkça yalnızlık riskinin arttığı, yalnızlık düzeyleri arttıkça doğacak bebeklerinin hijyenik bakımlarına hazır oluşluklarının azaldığı söylenebilir.

Anahtar Kelimeler: Gebelik, hijyenik bakım, sosyal destek, yalnızlık, yenidoğan

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INTRODUCTION

Loneliness is the social, physical, and emotional support that an individual perceives as inadequate.¹ In the studies on loneliness and social isolation examining the effects of loneliness in different dimensions throughout life, perceived insufficiency in personal networks (e.g., friends, family members, co-workers, etc.) was associated with wide-ranging physical and mental effects.^{2,3} According to age groups, increased risk of mortality compared to smoking up to 15 cigarettes per day,⁴ impaired sleep hygiene,⁵ and increased physiological deterioration can be listed among these morbidity factors.⁶ Therefore, the presence of an environment that meets the physiological, psychological, emotional, and spiritual needs of the fetus in the intrauterine period is a compulsory and primary requirement.⁷

A woman who receives sufficient social support can ask for help from those around her for a healthy pregnancy and can reduce pregnancy complications by increasing beneficial health practices and behaviors. In a study, it was observed that due to the social support that women get from their circle, they had a more positive pregnancy, adapted to the role of mother faster, and had fewer postpartum problems.⁸ The periods of quarantine may have resulted in negative consequences on pregnant women by affecting the continuity of psychological well-being and a common source of distress due to lack of social support. Therefore, it is important to understand how a possible decrease in perceived social support affects the psychological health and loneliness levels of women in the perinatal period during quarantine.⁷

While the process of pregnancy and birth is stressful, it also provides expectant mothers with an opportunity to prepare for the transition to parenthood. When the literature is reviewed, it is observed that especially women experiencing motherhood for the first time have anxiety about the care of their newborns, need professional and social support, and have anxiety about their self-efficacy.⁹ Insufficient perceived loneliness and social support of expectant mothers during pregnancy may affect the readiness to hygienic care for the newborn, and the lack of knowledge, experience, and skills of postpartum mothers and the feeling of inadequacy may affect their adaptation to the new role by decreasing their self-confidence.¹⁰

In line with all this information in the study, we aim to examine the relationship between loneliness, social support, and readiness for hygienic care of the newborn in pregnant women.

MATERIALS AND METHODS

Ethical Dimension of the Study: Ethics committee approval of the Sakarya University Faculty of Medi-

cine Ethics Committee (Date:02.03.2021, decision no: E-71522473-050.01.04-14801-81). The necessary permissions of the managers of the relevant training and research hospital were obtained before the study was conducted. Participants were informed about the study, where/how the data would be used, and the confidentiality of the answers; pregnant with written consent were included in the sample.

Study Design: The research is a descriptive, cross-sectional and correlational study.

Place and Time of the Study: The study was conducted with pregnant women who applied to a hospital in Sakarya in March-June 2021.

Population and Sample of the Study: While pregnant women who applied to the hospital constituted the population of the study, primigravida pregnant women who voluntarily agreed to participate in the study, were 19 years of age and older, had no previously diagnosed chronic or psychiatric disorders, and were in the third trimester of their pregnancy (n=254) constituted the sample.

Power analysis was conducted using the G*Power (3.1.9.2) program to determine the sample size. The sample size was determined as 215 pregnant women according to the effect size value of 0.19 and when Type 1 error probability (α) was accepted as 0.05 (at the 95% confidence level). Type 2 error probability (β) was accepted as 0.20 (at the 80% power level) for the determination of the relationship between the Multidimensional Scale of Perceived Social Support and the UCLA Loneliness Scale obtained from the publication titled "The Relationship of Loneliness with Social Support, Breastfeeding, and Maternal Attachment".¹¹ While calculating the sample size, it is stated that the sufficient sample size can be increased by 10-20% depending on the nature of the study, considering possible case losses.¹² 70 participants who filled out the questionnaire form incompletely were excluded from the study. The data from 254 pregnant women were included in the study.

Data Collection Tools: In the study, the data were collected using the Questionnaire Form prepared by the researchers, the UCLA LS3, the MSPSS, and the SRPWHCN. The data collection forms were given to the participants by the researchers, and they were asked to fill out them. The data collection lasted for approximately 15 minutes.

Questionnaire Form: This section involves 16 questions developed by the researchers on the literature, including the socio-demographic characteristics of pregnant women.^{7,10,11,13} These questions consisted of questions about age, educational background, employment status, economic level, and receiving support in infant care.

UCLA Loneliness Scale (Version 3) (UCLA LS3): It was developed by Russell et al. to determine the

level of loneliness perceived by the individual.¹⁴ The scale, validity and reliability study conducted by Durak and Senol-Durak, is a self-report scale consisting of 20 items.¹⁵ High scores on the scale indicate a high level of loneliness. The internal consistency coefficient (Cronbach Alpha) of the scale varies between .89 and .94 in different samples (university students, nurses, teachers, and elderly). In the elderly sample, the test-retest coefficient is known as .73 for one year. The Cronbach's alpha reliability coefficient of the scale for this study was 0.82.

Multidimensional Scale of Perceived Social Support (MSPSS): MSPSS is a 7-point Likert-type scale consisting of a total of 12 items. The validity and reliability of the form, which was developed by Zimet et al.¹⁶ and revised by Eker et al.,¹⁷ was performed. The scale has a total of three sub-dimensions including family, friends, and significant other. The lowest score and the highest score obtained from the sub-dimensions of the scale are 4 and 28, respectively. It is indicated that the higher the total score obtained from the scale is, the higher the perceived social support in that dimension is. The Cronbach's alpha reliability coefficient of the scale for this study was 0.84.

Scale for Readiness of Pregnant Women to Hygienic Care of the Newborn (SRPWHCN): SRPWHCN is a 7-point Likert-type scale consisting of 10 items. It was developed by Çaka and Çınar to evaluate pregnant women's readiness for hygienic newborn care.¹³ The lowest score and the highest score obtained from the scale are 10 and 70, respectively.

The scale is calculated over the total score, and the high scores indicate that the readiness of the pregnant woman is also high. The Cronbach's alpha reliability coefficient of the scale for this study was 0.93.

Statistical Analysis: In the study, the data of 254 participants were evaluated in the IBM SPSS Statistics 23 program in the computer environment. The descriptive characteristics of the participants were analyzed using frequency (n, %) for categorical variables and mean-standard deviation for continuous variables. Independent sample t-test and One-Way ANOVA test were used to examine the difference between groups. The Levene test was first performed to determine the homogeneity of variance, and then, Bonferonni or Tamhane's T2 test was performed to observe the difference. Pearson correlation analysis was used to investigate the relationship between the scales.

RESULTS

The mean age of the pregnant women was 25.75 ± 4.64 . The data on the descriptive characteristics of 254 pregnant women are presented in Table 1. Among the pregnant women who were included in the study, 46.5% were between 25-24 years of age, 35.0% were university graduates, 80.3% were housewives, 86.6% have a nuclear family, and 46.5% were married for 2 years and above. When obstetric and fetal characteristics of women were evaluated, it was determined that 76.0% of them had a planned pregnancy and 55.9% of the infants were expected to be male (Table 1).

Table 1. Demographic and clinical characteristics of pregnant women (N: 254).

Variables		n (%)
Age	19-24	121 (47.6)
	25-34	118(46.5)
	35 and above	15(5.9)
Education	Primary/ Secondary	76 (29.9)
	High school	89 (35.0)
	University	89 (35.0)
Perceived economic level	Income more than an expense	28 (11.0)
	Income equivalent to an expense	181 (71.3)
	Income less than an expense	45 (17.7)
Type of residence	Village	45 (17.7)
	Town	137 (53.9)
	City	72 (28.3)
Family type	Nuclear family	220 (86.6)
	Extended family	34 (13.4)
Leght of marriage	1 year and below	136 (53.5)
	2 years and above	118 (46.5)
Employment	Working	50 (19.7)
	Housewife	204 (80.3)
Pregnancy planning status	Planned	193 (76.0)
	Unplanned	61 (24.0)
Gender of newborn	Female	112 (44.1)
	Male	142 (55.9)

There was no significant difference between the age groups, economic levels, marriage duration, employment status, planned pregnancy, and the sex of the infant of the pregnant women who participated in the study, and the scales. While there was no significant difference between the educational level of the pregnant women and the MSPSS scale, there was a statistically significant difference between the UCLA and SRPWHCN ($p<0.05$). Accordingly, the mean scores of UCLA and SRPWHCN of those with primary school education were significantly higher than those with university education. When the relationship between the settlements of the pregnant women and the scales was examined, there was no significant relationship between MSPSS and SRPWHCN. However, there was a statistically significant difference between UCLA and the settlements of the pregnant women ($p<0.05$). Accordingly, it was determined that the participants who ex-

pressed their settlement as a village had higher mean scores of the UCLA compared to the province and district. While there was no significant relationship between the family types of the pregnant women and the MSPSS and SRPWHCN, there was a statistically significant difference between them and the UCLA ($p<0.05$). Accordingly, it was determined that the mean score of UCLA of pregnant women with nuclear family type was significantly lower than those with extended family. While there was no significant difference between the pregnant women's employment status and planned pregnancy and the MSPSS and SRPWHCN scales, there was a statistically significant difference between them and the UCLA ($p<0.05$). Accordingly, it was determined that those who were housewives and those with unplanned pregnancies had a significantly higher mean score at UCLA compared to the other group (Table 2).

Table 2. Comparison of the mean scores of the scales and some descriptive characteristics (N: 254).

Variables	UCLA Mean ± SD	MSPSS Mean ± SD	Family Mean ± SD	Friends Mean ± SD	Significant Other Mean ± SD	SRPWHCN Mean ± SD	
Age	19-24	38.32 ± 8.54	70.47 ± 15.63	24.83 ± 5.39	23.18± 6.04	22.45±6.75	62.17±8.84
	25-34	38.18 ± 8.82	71.92 ± 13.00	25.29 ± 4.36	23.75± 5.29	22.87±5.77	59.39±12.13
	35 and above	37.20 ± 9.51	70.33 ± 18.89	25.26 ± 5.36	24.20± 6.21	20.86±9.34	61.80±16.17
Education	F/p	0.110/0.896	0.316/0.729	0.273/0.761	0.416/0.660	0.661/0.517	1.966/0.142
	Primary/ Secondary (1)	40.21±8.15	68.25±15.48	24.43±5.25	22.52±6.55	21.28±7.31	63.25±9.45
	High school (2)	38.73±9.34	71.03±14.85	24.86±5.05	23.67±5.09	22.49±6.41	58.39±13.17
Perceived economic level	University(3)	35.93±8.05	73.70±13.32	25.83±4.43	24.17±5.46	23.69±5.63	61.29±9.40
	F/p	5.395/0.005 ^{*,a}	2.893/0.057	1.784/0.170	1.789/0.169	2.866/0.059	4.186/0.016 ^{*,a}
	Income more than an expense	37.28±8.96	75.85±10.67	26.42±2.76	24.75±6.07	24.67±4.09	63.57±10.95
Type of residence	Income equivalent to an expense	38.11±8.73	70.49±15.47	24.95±5.15	23.13±5.88	22.40±6.86	60.21±11.62
	Income less than an expense	39.06±8.53	70.77±12.92	24.71±4.97	24.22±4.59	21.84±6.00	61.77±8.07
	F/p	0.384/0.681	1.649/0.194	1.235/0.293	1.400/0.249	1.829/0.163	1.316/0.270
Family type	Village (1)	42.11±8.26	70.13±12.24	24.95±4.19	23.44±4.50	21.73±6.07	59.33±14.10
	Town (2)	37.01±8.45	70.59±15.25	24.81±5.24	23.24±6.12	22.53±6.57	61.49±10.02
	City (3)	37.98±8.84	72.79±14.87	25.63±4.74	24.04±5.58	23.11±6.61	60.61±10.71
Leght of marriage	F/p	6.070/0.003 ^{**,ab}	0.656/0.520	0.670/0.512	0.458/0.633	0.624/0.537	0.677/0.509
	Nuclear family	37.60±8.68	71.56±14.61	25.15±4.95	23.59±5.77	22.80±6.35	60.76±11.28
	Extended family	41.97±7.96	68.38±14.76	24.52±4.74	22.94±5.26	20.91±7.19	61.47±9.26
Employment	t/p	-2.755/0.006 ^{**}	1.180/0.239	0.693/0.489	0.621/0.535	21.591/0.113	-0.345/0.730
	1 year and below	38.73±8.66	70.55±14.90	24.86±5.25	23.29±5.98	22.38±6.64	60.62±11.13
	2 years and above	37.56±8.74	71.81±14.37	25.31±4.53	23.75±5.381	22.74±6.33	61.13±10.92
Pregnancy planning status	t/p	1.067/0.287	-0.684/0.494	-0.719/0.473	-0.640/0.523	-0.435/0.664	-0.368/0.714
	Working	38.26±8.44	72.76±12.15	25.70±3.50	23.70±4.82	23.36±5.56	59.60±12.90
	Housewife	38.17±8.78	70.74±15.19	24.92±5.21	23.46±5.91	22.35±6.69	61.17±10.52
Gender of newborn	t/p	-2.581/0.011 [*]	1.500/0.136	.976/0.330	1.145/0.254	1.500/0.136	-.169/0.866
	Planned	38.259±8.88	70.94±14.87	25.07±4.94	23.42±5.60	22.44±6.52	61.16±10.32
	Unplanned	37.98±8.17	71.75±13.97	25.08±4.90	23.77±6.05	22.90±6.41	59.90±13.04
Gender of newborn	t/p	0.215/0.830	-0.376/0.707	-0.013/0.990	-0.412/0.681	-0.478/0.633	-0.780/0.436
	Female	38.42±8.83	72.34±12.97	25.59±4.03	23.91±5.30	22.83±6.32	62.12±9.80
	Male	38.00±8.62	70.18±15.81	24.66±5.50	23.18±6.00	22.33±6.63	59.86±11.83
	t/p	0.383/0.702	1.171/0.243	1.508/0.133	1.021/0.308	0.599/0.549	1.627/0.105

UCLA: UCLA Loneliness Scale; MSPSS: Multidimensional Scale of Perceived Social Support; SRPWHCN: Scale for Readiness of Pregnant Women to Hygienic Care of the Newborn; F: One-way ANOVA test; t: Independent sample t-test; a: 1-3; b: 1-2; *: $p<0.05$; **: $p<0.001$.

It was determined that there was a significant negative relationship between the MSPSS and family and friend sub-dimensions and the UCLA of the pregnant women ($p<0.05$). Accordingly, the risk of loneliness increased as social support decreased. There was a significant negative relationship between the mean scores of the UCLA and SRPWCHN of the pregnant women ($p<0.05$). Accordingly, it can be

said that pregnant women's readiness for hygienic care of their newborns decreased as their level of loneliness increased. There was a significant positive relationship between the MSPSS, its sub-dimensions, and the SRPWCHN ($p<0.05$). Considering this result, it can be said that pregnant women's readiness for hygienic care of their newborns increased as social support increased (Table 3).

Table 3. Relationship Between Scales and Sub-Dimensions.

		UCLA	MSPSS	Family	Friends	Significant Other	SRPWCHN
UCLA	r	1	-0.146	-0.182	-0.126	-0.081	-0.158
	p		0.020*	0.004**	0.045*	0.197	0.011*
MSPSS	r		1	0.844	0.840	0.876	0.209
	p			0.000**	0.000**	0.000**	0.000**
Family	r			1	0.589	0.628	0.235
	p				0.000**	0.000**	0.000**
Friends	r				1	0.569	0.196
	p					0.000**	0.002**
Significant Other	r					1	0.122
	p						0.052
SRPWCHN	r						1
	p						

UCLA: UCLA Loneliness Scale; MSPSS: Multidimensional Scale of Perceived Social Support; SRPWCHN: Scale for Readiness of Pregnant Women to Hygienic Care of the Newborn; r: Pearson correlation analysis; *: $p<0.05$; **: $p<0.001$.

DISCUSSION AND CONCLUSION

In recent years, attention has been drawn to the importance of social support during pregnancy. It has been emphasized that supporting pregnant women during this period will positively affect postpartum outcomes.¹⁸ Women who do not receive adequate social support during this period may feel lonely. According to the results obtained, it was determined that pregnant had a moderate level of loneliness, that the risk of loneliness increased as social support decreased, and that their readiness for hygienic care of their newborns decreased.

Although some studies focused on perinatal loneliness, some evidence indicates that these relationships also exist in the antenatal and postnatal periods.^{19,20} Those with lower levels of perceived social support may have an increased level of loneliness, leading to negative social and cognitive biases and reinforcing or supporting negative emotions and behaviors associated with depression and anxiety.⁶ However, as far as we know, there is no data on the extent to which women experienced loneliness during the perinatal period during the pandemic and whether their loneliness levels mediated their levels of perceived social support during this period. It may be related to the fact that pregnant women experience loneliness by negatively affecting their social relationships outside their own family due to the restrictions imposed to control the pandemic in this study group. This result reinforces the qualitative evidence that family and peer support are the most

valuable form of social support among women with perinatal loneliness.⁸ In this study, it was observed that the mean scores of UCLA of those who had primary school education, lived in rural areas, had an extended family, were housewives and those with unplanned pregnancies were significantly higher compared to the other groups. Similar to our study, it was observed in a study that the mean score of loneliness was higher among those who lived in rural areas and had an extended family.²¹ In this study, the relationship between family support, one of the MSPSS sub-dimensions, and loneliness were found to be significantly high probably because it was the most accessible form of support available during the pandemic. Nevertheless, the exclusion of husbands from prenatal screenings or appointments may have had a negative effect on their perception of support. From another perspective, the husbands' stay at home the pandemic may have increased social support. Since studies have revealed that husband's support is significantly associated with the mother's prenatal and postnatal mental health.²²

The pregnancy is one period during which women mostly need care for themselves and their babies. As it is seen in the studies, primiparous mothers without sufficient knowledge and skills in the care of their newborns inevitably have high levels of anxiety and worry.^{23,24} In the study, it was observed that pregnant women's readiness for hygienic care of their newborns decreased as their loneliness level increased and social support decreased. Social support

positively affects the process of adaptation of women to the role of motherhood in the pregnancy and postpartum period and increases her sensitivity toward her baby.⁸ Mothers make efforts to adapt to the changes and to meet their care and needs of their babies in the postpartum period. In fact, providing mothers with adequate social support during the pregnancy period will positively affect their physical and mental health by reducing their sense of loneliness.²⁵ Furthermore, the woman's readiness for the changes in the postpartum period from the pregnancy period is important for accelerating the role of motherhood and skill development. When the literature was reviewed, no study was found on the effects of social support and loneliness on the readiness to hygienic care for newborns. This study will contribute to the relevant literature.

In this study, it was found that the mean scores of SRPWHCN of those with a primary school education were significantly higher compared to those with a university education (Table 2). There are many studies examining the relationship between perinatal, neonatal, and/or infant mortality and maternal education level.²⁶⁻²⁹ In these studies, it was observed that there was lower neonatal mortality if the mother had a higher education level. In our study, the reason why the mean scale scores of pregnant women with primary/secondary school education were found to be higher compared to university graduates can be associated with the fact that previous childcare experiences of pregnant women were not investigated, although they had no children, which is a limitation of this study. Although there are many studies on newborn care for mothers, there are limited studies examining the readiness to care for the newborn during pregnancy. There is a need for other large randomized controlled studies in which the factors affecting the readiness to care for newborn are evaluated.

In conclusion, it is inevitable for mothers to experience anxiety and stress while adapting to new roles and responsibilities in the postpartum period. Health professionals need to determine the loneliness and social support factors that may increase anxiety and stress in the mother's proper care of her baby in the postpartum period. Therefore, it should be kept in mind that mothers may need help, and they should be followed up from the pregnancy period to provide family support or professional support when needed.

Ethics Committee Approval: This study was approved by the Sakarya University Faculty of Medicine Ethics Committee (Date: 02.03.2021, decision no: E-71522473-050.01.04-14801-81).

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