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Factors Affecting Colleague Solidarity and Job Satisfaction in Midwifery

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ABSTRACT

Objective: This study was conducted to determine the factors affecting colleague solidarity and job satisfaction in midwives working in public hospitals in Türkiye. **Materials and Methods:** This cross-sectional descriptive study was conducted between 02.12.2020 and 02.06.2021 by applying an online survey to midwives. Data were collected with a personal information form, Colleague Solidarity Among Nurses Scale, and the Minnesota Satisfaction Scale. The study included 411 midwives. **Results:** It was found that 56.4% of the midwives participating in the study scored higher than the mean score (100.23±8.0) on the Colleague Solidarity Among Nurses Scale, suggesting that there was colleague solidarity among them. It was determined that intrinsic satisfaction (3.47±0.7) and general job satisfaction (3.24±0.7) of the participants were high, while their extrinsic job satisfaction score (2.90±0.7) was at a low level. Age and the average number of patients given daily care affected the total colleague solidarity score, while age, marital status, midwifery experience period, reason for choosing the unit, choosing the profession willingly, and workload levels were the factors affecting job satisfaction. **Conclusion:** The study found that there was high colleague solidarity among midwives, and a significant positive relationship between colleague solidarity and work solidarity. Midwives received the highest score in the emotional solidarity dimension. Improving the working conditions of midwives, who have an important role in the development of women's and community health, strengthening their relations with managers and colleagues, and developing strategies to increase job satisfaction can increase the quality of midwifery services and the welfare level of community well being.

Keywords: Midwife, Midwifery, Job satisfaction, Colleague solidarity.

Ebelikte Meslektaş Dayanışması ve İş Doyumunu Etkileyen Faktörler

ÖZ

Amaç: Bu araştırma, Türkiye'deki kamu hastanelerinde çalışan ebelerde meslektaş dayanışması ve iş doyumunu etkileyen faktörlerin belirlenmesi amacı ile yapılmıştır. **Gereç ve Yöntem:** Tanımlayıcı, kesitsel tipte olan bu çalışma, 02.12.2020 ile 02.06.2021 tarihleri arasında, ebelere online anket uygulanarak gerçekleştirilmiştir. Veriler kişisel bilgi formu, Hemşirelerde Meslektaş Dayanışması Ölçeği ve Minnesota İş Doyumu Ölçeği kullanılarak toplanmıştır. Araştırmaya 411 ebe dahil edilmiştir. **Bulgular:** Araştırmaya katılan ebelerin %56.4'ü Hemşirelerde Meslektaş Dayanışması Ölçeği'nden (100.23±8.0) yüksek puan almıştır ve bu durum aralarında meslektaş dayanışmasının olduğunu göstermektedir. Katılımcıların içsel doyum (3.47±0.7) ve genel iş doyumunun (3.24±0.7) yüksek olduğu, dışsal iş doyum puanının (2.90±0.7) ise düşük olduğu belirlenmiştir. Yaş ve günlük bakım verilen ortalama hasta sayısı toplam meslektaş dayanışması puanını etkilerken, yaş, medeni durum, ebeler deneyim süresi, birimi seçme nedeni, mesleği isteyerek seçme ve iş yükü düzeyleri iş doyumunu etkileyen faktörler olmuştur. **Sonuç:** Çalışmada, ebeler arasında yüksek meslektaş dayanışması olduğu ve meslektaş dayanışması ile iş dayanışması arasında anlamlı pozitif bir ilişki olduğu belirlenmiştir. Ebeler, duygusal dayanışma boyutunda en yüksek puanı almıştır. Kadın ve toplum sağlığının gelişmesinde önemli rolü olan ebelerin çalışma koşullarının iyileştirilmesi, yönetici ve meslektaşları ile ilişkilerinin güçlendirilmesi ve iş doyumunun artırılmasına yönelik stratejiler geliştirilmesi, ebeler hizmetlerinin kalitesini ve toplumun refah düzeyini artırabilir.

Anahtar Kelimeler: Ebe, Ebeler, İş doyum, Meslektaş dayanışması.

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INTRODUCTION

Midwifery, a profession as old as human history, is a discipline that combines science and art and provides high-quality health care to mothers and newborns (Sönmez et al., 2023). In establishing the standards of the occupation and providing quality care, continuous cooperation of colleagues and workplace employees, and their being in solidarity and communication are highly important (Rezaee et al., 2023).

In the ethics codes recognized universally, an emphasis is based on the statement, "Midwives support each other in their professional roles and maintain this, and they actively nurture their own and others' self-value emotions"(International Confederation of Midwives, 2019). Harmony and colleague solidarity among employees in the workplace is important in terms of solving problems and increasing work efficiency (Kristoffersen et al., 2021).

Feeling that it is valued and supported by colleagues and managers can increase the job satisfaction of midwives (Evans et al., 2020). Determining workload problems, patient safety, and care quality and developing colleague relations can also increase employees' job satisfaction (Karlsson et al., 2019).

Although there has been an increase in the number of studies conducted on the job satisfaction of physicians and nurses among health professionals, very few studies on the job satisfaction of midwives have been encountered in the literature (Hampton & Peterson, 2012). High job satisfaction among midwives can ensure that in addition to the women they provide services for, pregnant women, puerperal, and neonates receive quality care (Yalnız & Saydam, 2015). In this research, we assumed a positive and significant relationship between colleague solidarity and job satisfaction in midwives, and we conducted to determine the factors affecting colleague solidarity and job satisfaction in midwives.

MATERIALS AND METHODS

Research type

This study was designed as a cross-sectional descriptive study. The survey design adhered to the Checklist for Reporting Results of Internet E-Surveys (CHERRIES) (Eysenbach, 2004).

Research sample

The research sample consisted of 411 midwives working in inpatient healthcare institutions across Türkiye. The study was carried out in 75 public hospitals (state hospitals, university hospitals, training and research hospitals) located in 50 provinces representing all seven geographical regions of Türkiye. To ensure regional representation, hospitals were selected from the Marmara, Aegean, Mediterranean, Central Anatolia, Black Sea, Eastern Anatolia, and Southeastern Anatolia regions. The sampling was designed to reflect a broad geographical distribution across the country.

We conducted this research with a simple random sampling method. The Turkish Statistical Institute (TUIK) reported that the number of midwives in Türkiye was 55,972, according to the 2021 data (TUIK,2021). The sample size was calculated as a minimum of 382 with 95% confidence interval and 5% error using Open Epi software Version 3 Instruments (Dean et al. 2013). Considering data loss, 478 midwives were reached. Due to inconsistent data submission, 67 participants were excluded and the study was completed with 411 midwives.

Inclusion criteria

Midwives were included in the study if they met all of the following conditions:

- Had at least one year of professional experience (to support the development of colleague solidarity and job satisfaction),
- Were between the ages of 18 and 60,
- Were actively working in inpatient healthcare institutions,
- Provided electronic informed consent to participate in the study.

Exclusion criteria

The following individuals were excluded from the study:

- Midwives who were not actively working during the data collection period (e.g., on leave, medical leave, or assigned to administrative duties),
- Those working in private hospitals or primary healthcare centers,
- Those who declined to provide informed consent,
- Those who submitted incomplete or inconsistent data.

Data collection

Research data were collected between December 2, 2020, and June 2, 2021, through an online survey administered via Google Forms. The survey link was distributed via email to midwives registered with professional midwifery associations.

Data tools

Data were collected with a personal information form, Colleague Solidarity Scale among Nurses (CSNS), and Minnesota Satisfaction Scale (MSQ).

Colleague Solidarity Among Nurses Scale

The scale developed by Uslusoy and Alpar in (2013a) to measure solidarity among nurses has 23 items and a 5-point Likert type. The scale has three subscales: "emotional solidarity", "academic solidarity" and "negative views on solidarity " (Uslusoy & Alpar, 2013a). Expert opinion was obtained that the scale could be used on midwives. The Cronbach's alpha reliability coefficients for the CSNS in this study were found to be: CSNS-Emotional Solidarity 0.78, CSNS-Academic Solidarity 0.76, CSNS-Negative Opinions About Solidarity 0.73, and CSNS-General Solidarity 0.82.

Minnesota Satisfaction Questionnaire

The scale developed by Weiss et al. (1967) (Weiss et al., 1967) was adapted into Turkish by Baycan (1985) by conducting validity and reliability studies (Baycan,

1985). MSQ is a 20-item scale that determines intrinsic, extrinsic and general satisfaction levels. Scores range from 1.0 to 5.0. The Cronbach's alpha reliability coefficients for the MSQ in this study were found to be: MSQ-Intrinsic Satisfaction 0.88, MSQ-Extrinsic Satisfaction 0.84, and MSQ-General Satisfaction 0.92.

Data analysis

All statistical analyses were conducted using SPSS 25.0. Descriptive statistics (mean, standard deviation, median, quartiles, frequency, percentage, min, max) were used for data analysis. Cronbach's alpha assessed internal consistency. Normality was tested with the Shapiro-Wilk test and graphical methods. For normally distributed data, independent t-tests were used for two-group comparisons and ANOVA with Bonferroni-adjusted pairwise comparisons for more than two groups. For non-normally distributed data, Kruskal-Wallis and Dunn-Bonferroni tests were applied.

Pearson correlation analysis was used to assess relationships between quantitative variables. Multivariable linear regression analyses were performed to identify the factors influencing the total scores of the MSQ and the CSNS. The statistical significance level was set as $p < 0.05$.

Ethical approval

Ethics committee approval was received for this study from the ethics committee of Kocaeli University (Date: November 30, 2020, Number: 2020/20.16 2020/333). We conducted this research in accordance with the guidelines in the Declaration of Helsinki. We obtained permission from the authors to use the scales. Electronic informed consent was obtained from the participants in the study.

RESULTS

The mean age of the midwives was found to be 30.4 ± 7.81 with a range of 18-58 years, and the other descriptive characteristics are given in Table 1.

A statistically significant negative relationship was found between participants' age and the CSNS Negative opinions subscale scores, with a correlation of -0.289 ($r = -0.289$, $p < 0.001$).

CSNS negative opinions scores of the midwives with high school and associate degree were lower compared to those of the midwives with bachelor's degrees and graduate degrees ($p = 0.001$) (Table 2).

The academic solidarity scores of those with midwifery experience of 21 years or more ($p = 0.010$) and the CSNS negative opinion scores of those with 1-5 years of seniority were higher than the other groups ($p = 0.001$). The negative opinion scores of midwives caring for 1-4 patients per day were lower than the other groups ($p = 0.01$), and the total CSNS scores were higher than the other groups ($p = 0.049$).

The participants had an average of MSQ intrinsic (3.47 ± 0.7), extrinsic (2.90 ± 0.7), and general job satisfaction score (3.24 ± 0.7). We found that CSNS emotional solidarity score (40.29 ± 3.3), academic

solidarity score (39.51 ± 3.8), negative thoughts score (20.43 ± 3.3), and total scores (100.23 ± 8.0) (Table 3).

A statistically significant negative relationship was found between participants' age and the MSQ subscale scores, with a correlation of -0.118 for intrinsic satisfaction ($r = -0.118$, $p = 0.017$), -0.156 for extrinsic satisfaction ($r = -0.156$, $p = 0.002$), and -0.142 for general satisfaction ($r = -0.142$, $p = 0.004$).

Table 1. Socio-demographic Characteristics of the Midwives (n=411).

	Min-Max (Median)	Mean \pm SD
Age	18-58 (27)	30.04 \pm 7.81
	n=411	%
Marital status		
Married	201	48.9
Single	210	51.1
Education level		
High school/Associate degree	22	5.3
Bachelor's degree	333	81.0
Graduate degree	56	13.6
Midwifery experience period (year)		
1-5	246	59.8
6-10	59	14.3
11-15	32	7.7
16-20	15	3.6
21 year and above	59	14.3
Average number of patients given daily care		
1-4	66	16.1
5-10	128	31.1
11-20	115	28.0
21-40	102	24.8
Choice of unit		
Due to assignment	184	44.8
Own choice	199	48.4
Various reason	28	6.8
Choosing the profession willingly		
Yes	341	83.0
No	70	17.0
Workload levels		
Light workload	6	1.5
Balanced workload	128	31.1
Heavy workload	277	67.4

MSQ intrinsic, extrinsic, and general satisfaction scores of the single midwives were higher than the scores of those who were married ($p = 0.001$, $p = 0.001$, $p = 0.001$). MSQ intrinsic ($p = 0.001$), MSQ extrinsic ($p = 0.008$), and MSQ general satisfaction ($p = 0.001$) scores of the midwives with 1-5 years of experience were higher than the the other groups. Midwives working in the unit due to the assignment had a higher average of MSQ intrinsic ($p = 0.001$), extrinsic

($p=0.007$) and general satisfaction ($p=0.001$) scores (Table 4).

MSQ intrinsic, extrinsic, and general satisfaction scores of the midwives who chose their profession willingly were higher ($p=0.001$, $p=0.001$, $p=0.001$). The intrinsic satisfaction score averages of midwives

with a light workload were higher than those of midwives with a balanced and heavy workload ($p=0.001$). The MSQ extrinsic and general satisfaction scores were higher in the participants with a balanced workload than those with a light and heavy workload ($p=0.001$, $p=0.001$).

Table 2. Comparison of the Nurses' Colleague Solidarity Scale mean scores according to some sociodemographic characteristics of midwives.

CSNS	n	Emotional Solidarity Mean \pm SD	Academic Solidarity Mean \pm SD	Negative opinions on Solidarity Mean \pm SD	Total Mean \pm SD
Age	r	0.017	0.095	-0.289	-0.081
	p	0.725	0.054	0.001*	0.100
Marital Status					
Married	201	40.06 \pm 3.41	39.57 \pm 3.87	20.09 \pm 4.02	99.72 \pm 8.3
Single	210	40.51 \pm 3.34	39.45 \pm 3.81	20.76 \pm 3.43	100.71 \pm 7.8
^a p		0.178	0.743	0.070	0.212
Educational Level					
High school/Associate degree	22	41.32 \pm 3.11	39.55 \pm 4.82	16.77 \pm 5.2	97.64 \pm 8.64
Bachelor's degree	333	40.2 \pm 3.43	39.3 \pm 3.9	20.57 \pm 3.55	100.07 \pm 8.13
Graduate degree	56	40.41 \pm 3.16	40.75 \pm 2.73	21.04 \pm 3.41	102.2 \pm 7.05
^b p		0.269	0.057	0.001*	0.051
Midwifery experience period (year)					
1-5	246	40.37 \pm 3.34	39.38 \pm 3.84	21.21 \pm 2.90	100.96 \pm 7.64
6-10	59	39.51 \pm 3.48	39.24 \pm 3.51	20.27 \pm 3.65	99.02 \pm 8.20
11-15	32	40.38 \pm 3.38	39.25 \pm 4.48	18.5 \pm 4.43	98.13 \pm 9.66
16-20	15	39.80 \pm 2.60	38.00 \pm 3.02	19.67 \pm 3.98	97.47 \pm 6.61
≥ 21	59	40.80 \pm 3.57	40.85 \pm 3.73	18.58 \pm 5.24	100.22 \pm 8.72
^b p		0.197	0.010*	0.001**	0.131
Average number of patients given daily care					
1-4	66	39.7 \pm 4.1	38.7 \pm 4.4	19.5 \pm 4	98 \pm 9.9
5-10	128	40.2 \pm 3.1	39.6 \pm 3.7	19.9 \pm 4.2	99.8 \pm 7.2
11-20	115	40.5 \pm 2.9	39.4 \pm 3.8	21.1 \pm 3.1	101.1 \pm 7.3
21-40	102	40.4 \pm 3.6	39.9 \pm 3.5	20.7 \pm 3.3	101.1 \pm 8.3
^c p		0.518	0.299	0.010*	0.049*
Reason for choosing the unit					
Due to assignment	184	40.7 \pm 3.14	39.66 \pm 3.81	20.72 \pm 3.69	101.08 \pm 7.32
Own choice	199	40.03 \pm 3.39	39.3 \pm 3.87	20.33 \pm 3.77	99.65 \pm 8.43
Various reason	28	39.46 \pm 4.45	40 \pm 3.83	19.29 \pm 3.69	98.75 \pm 9.57
^c p		0.060	0.519	0.145	0.136
Choosing the profession willingly					
No	70	39.63 \pm 3.18	38.91 \pm 3.91	20.29 \pm 3.49	98.83 \pm 7.89
Yes	341	40.43 \pm 3.41	39.63 \pm 3.82	20.46 \pm 3.79	100.52 \pm 8.07
^a p		0.072	0.155	0.722	0.110
Workload levels					
Light workload	6	39 (38, 40)	39.5 (36, 42)	20 (19, 24)	99 (96, 100)
Balanced workload	128	41 (39, 43)	40 (36.5, 43)	21 (18, 23)	101 (93.5, 107)
Heavy workload	277	41 (38, 43)	40 (37, 43)	22 (19, 23)	102 (95, 107)
^b p		0.178	0.986	0.172	0.536

r= Pearson correlation coefficient a: Independent samples t test, b:Kruskal-Wallis test, c: One-way analysis of variance, * $p<0.05$ Workload levels results presented as median.

We identified a positive and significant relationship between the midwives' MSQ intrinsic satisfaction and CSNS emotional solidarity scores ($r=0.35$, $p<0.001$), and between MSQ intrinsic satisfaction and CSNS academic solidarity scores ($r=0.20$, $p<0.001$). There was a positive and significant relationship between the participants' MSQ intrinsic satisfaction and CSNS negative opinions scores ($r=0.11$, $p=0.026$) and between their MSQ intrinsic satisfaction and CSNS total mean scores ($r=0.29$, $p<0.001$), (Table 5). We determined a positive and significant relationship between the participants' MSQ general satisfaction

and CSNS emotional solidarity scores ($r=0.35$, $p=0.001$), between extrinsic satisfaction and CSNS academic solidarity scores ($r=0.15$, $p=0.001$), and between MSQ extrinsic satisfaction and CSNS total scores ($r=0.25$, $p=0.001$). There was a positive and significant relationship between the participants' MSQ general satisfaction and CSNS emotional solidarity scores ($r=0.37$, $p=0.001$), between MSQ general satisfaction and CSNS academic satisfaction scores ($r=0.19$, $p=0.001$), and between MSQ general satisfaction and CSNS total scores ($r=0.29$, $p=0.001$).

Table 3. Distribution of sub-dimensions and total scores of the Minnesota Job Satisfaction and Colleague Solidarity Nurses' Scales in midwives (n=411).

	Number of items	Min-Max (Median)	Mean \pm SD	Internal consistency
MSQ-Intrinsic Satisfaction	12	1-4.92 (3.58)	3.47 \pm 0.7	0.88
MSQ-Extrinsic Satisfaction	8	1-4.75(3)	2.90 \pm 0.7	0.84
MSQ-General Satisfaction	20	1-4.8(3.3)	3.24 \pm 0.7	0.92
CSNS-Emotional Solidarity	9	23-45(41)	40.29 \pm 3.3	0.78
CSNS-Academic Solidarity	9	26-45(40)	39.51 \pm 3.8	0.76
CSNS- Negative Opinions About Solidarity	5	5-25(21)	20.43 \pm 3.7	0.73
CSNS-General Solidarity	23	65-115(101)	100.23 \pm 8.0	0.82

Regression analysis for CSNS total score

In order to determine the factors effective on CSNS total score, linear regression analysis was performed. Age, educational status, midwifery experience period, average number of patients given daily care, reason for choosing the unit, choosing the profession willingly, which were observed to have a significant and close to significant effect ($p<0.200$) on general satisfaction score in the univariate analyses, were included in the multivariate analysis as independent variables. Dummy variables were created for the subcategories of the categorical variables. Due to the high Variance Inflation Factor (VIF) value of educational level obtained as a result of the primary evaluation, this variable was excluded from the analysis.

As a result of the analysis, the model was found to be statistically significant, with an adjusted R^2 value of 0.028 ($F=2.16$, $p<0.019$, $R^2_{adj}=0.028$).

This indicates that the model accounted for approximately 2.8% of the total variance in CSNS scores. Although the proportion of explained variance was relatively low, the model still provides valuable insight into the predictors of CSNS.

It was determined that the midwives providing care to an average number of 11 to 20 patients per day led to an increase by 2.874 points in CSNS total score [Beta (%95 CI) = 2.87 (0.5, 5.3), $p=0.020$]. The midwives' providing care to an average number of 21 to 40 patients per day was determined to lead to an increase

by 2.8 points in CSNS total score [Beta (%95 CI) = 2.8 (0.28, 5.32), $p=0.020$].

Regression analysis for MSQ general satisfaction score

A linear regression analysis was conducted to identify the factors influencing the overall satisfaction score on the MSQ. In the univariate analyses, variables that showed significant or near-significant associations with overall satisfaction ($p<0.200$), including age, marital status, midwifery experience period, reason for choosing the unit, choosing the profession willingly, and workload levels, were included as independent variables in the multivariate analysis. Dummy variables were created for the subcategories of categorical variables. Based on the initial evaluation, age and workload levels were excluded from the analysis due to high VIF values. The regression model was found to be statistically significant, with an adjusted R^2 of 0.090 ($F = 5.042$, $p < 0.001$, $R^2_{adj} = 0.090$).

It was determined that being single led to an increase by 0.362 point in MSQ general satisfaction score [Beta (%95 CI) = 0.36 (0.18, 0.54), $p<0.001$]. Working in the current unit due to other causes was determined to cause a decrease by 0.47 in MSQ general satisfaction score [Beta (%95 CI) = -0.47 (-0.74, -0.20), $p=0.001$]. Having chosen the profession willingly was found to lead to an increase by 0.34 point in MSQ general satisfaction score [Beta (%95 CI) = 0.34 (0.17, 0.52), $p<0.001$].

The model was found to be statistically significant and explained approximately 9% of the variance in the overall MSQ satisfaction score (Adjusted $R^2 = 0.090$). This indicates that the independent variables included

in the model collectively account for about 9% of the variation in the general satisfaction levels reported by participants.

Table 4. Comparison of Minnesota Job Satisfaction Scale Scores and Some Variables in Midwives (n=411).

MSQ	n	Intrinsic Satisfaction Mean \pm SD	Extrinsic Satisfaction Mean \pm SD	General Satisfaction Mean \pm SD
Age				
	r	-0.118	-0.156	-0.142
	p	0.017*	0.002*	0.004*
Marital Status				
Married	201	3.34 \pm 0.6	2.73 \pm 0.7	3.09 \pm 0.7
Single	210	3.6 \pm 0.6	3.07 \pm 0.7	3.39 \pm 0.67
^a p		0.001*	0.001*	0.001*
Educational Level				
High school/Associate degree	22	3.42 \pm 0.58	2.82 \pm 0.76	3.18 \pm 0.59
Bachelor's degree	333	3.48 \pm 0.71	2.92 \pm 0.81	3.25 \pm 0.71
Graduate degree	56	3.46 \pm 0.67	2.84 \pm 0.71	3.21 \pm 0.64
^b p		0.724	0.597	0.575
Midwifery experience period (year)				
1-5	246	3.56 \pm 0.72	3.01 \pm 0.81	3.34 \pm 0.72
6-10	59	3.24 \pm 0.62	2.67 \pm 0.73	3.01 \pm 0.62
11-15	32	3.29 \pm 0.73	2.84 \pm 0.74	3.11 \pm 0.71
16-20	15	3.48 \pm 0.48	2.78 \pm 0.49	3.2 \pm 0.41
≥ 21	59	3.42 \pm 0.62	2.76 \pm 0.79	3.15 \pm 0.66
^b p		0.001*	0.008*	0.001*
Average number of patients given daily care				
1-4	66	3.44 \pm 0.7	2.96 \pm 0.7	3.25 \pm 0.7
5-10	128	3.52 \pm 0.6	2.91 \pm 0.7	3.28 \pm 0.6
11-20	115	3.44 \pm 0.6	2.88 \pm 0.7	3.22 \pm 0.6
21-40	102	3.47 \pm 0.7	2.88 \pm 0.8	3.23 \pm 0.7
^c p		0.790	0.899	0.914
Reason for choosing the unit				
Due to assignment	184	3.58 \pm 0.6	2.96 \pm 0.7	3.33 \pm 0.6
Own choice	199	3.43 \pm 0.6	2.91 \pm 0.7	3.22 \pm 0.6
Various reason	28	3.06 \pm 0.9	2.46 \pm 0.8	2.82 \pm 0.8
^c p		0.001*	0.007*	0.001*
Choosing the profession willingly				
No	70	3.2 \pm 0.7	2.57 \pm 0.8	2.95 \pm 0.7
Yes	341	3.53 \pm 0.6	2.97 \pm 0.7	3.3 \pm 0.6
^a p		0.001*	0.001*	0.001*
Workload levels				
Light workload	6	3.83 (3.4, 4.2)	2.69 (2.3, 3.2)	3.4 (3, 3.9)
Balanced workload	128	3.75 (3.4, 4)	3.25 (2.7, 3.7)	3.6 (3.2, 3.9)
Heavy workload	277	3.42 (3, 3.8)	2.75 (2.1, 3.3)	3.15 (2.7, 3.6)
^b p		0.001*	0.001	0.001*

r: Pearson correlation coefficient, a: Independent samples t test, b: Kruskal-Wallis test, c: One-way analysis of variance, *p<0.05 Workload levels results are presented as median.

Table 5. Relationship levels between Colleague Solidarity Nurses' Scale and Minnesota Job Satisfaction Scale scores in midwives (n=411).

MSQ		Intrinsic Satisfaction	Extrinsic Satisfaction	General Satisfaction
CSNS Emotional Solidarity	r	0.35	0.35	0.37
	p	0.001*	0.001*	0.001*
CSNS Academic Solidarity	r	0.20	0.15	0.19
	p	0.001*	0.001*	0.001*
CSNS Negative Opinions About Solidarity	r	0.11	0.05	0.09
	p	0.026*	0.277	0.067
CSNS Total Solidarity	r	0.29	0.25	0.29
	p	0.001*	0.001*	0.001*

r: Pearson correlation coefficient, *p<0.05

DISCUSSION

This study is, to the best of our knowledge, the first to use the CSNS which measures solidarity among nurses in Türkiye on midwives. The same scale was previously used in 2021 on pharmacists in Türkiye (Şahne et al. 2021).

In our study, 56.4% of the 411 midwives scored above the total mean score of the CSNS, while 43.6% scored below it. Similarly, in the study conducted by Uslusoy and Alpar (2013b), 53.6% of the 300 nurses scored above the mean score, 40% scored below the mean score, and 6.4% scored equal to the mean score (Uslusoy & Alpar, 2013b). This finding is similar to our study, and it is seen that a significant portion of the participants in both studies exhibited different levels of colleague solidarity. This situation shows that collegiality among health professionals is not always homogeneous, that this solidarity is shaped by individual and group dynamics, and that it has a significant effect on job satisfaction. In addition, it was observed in both studies that groups with high collegiality had higher levels of job satisfaction. This finding reveals that collegiality is not only a "support" element, but also an important factor that increases job satisfaction and general happiness levels in the workplace.

In the present study, a negative relationship was found between the participants' ages and their CSNS negative opinion scores. Based on the research findings, it can be stated that older midwives held fewer negative opinions about their profession.

Our study results indicate that midwives with a high school/associate degree scored lower on the CSNS negative opinions subscale related to solidarity compared to those with a bachelor's or graduate degree. Similarly, Uslusoy and Alpar (2013b) also reported lower scores on this subscale among high school graduates compared to other educational groups (Uslusoy & Alpar, 2013b).

According to the results of the study, midwives with 21 years or more of experience had higher CSNS academic solidarity scores, while those with 1-5 years of seniority had higher CSNS negative opinion scores compared to the other groups. This finding indicates

that as the duration of experience increases, academic solidarity strengthens and negative professional opinions decrease. Experienced midwives may be less affected by negative opinions because they have more confidence in their profession. Additionally, extensive experience may enhance their ability to cope with professional challenges, allowing them to build more positive relationships with colleagues and increase solidarity.

In the present study, it was determined that midwives who provided care to an average of 1-4 patients per day had lower CSNS negative opinion scores and total solidarity scores compared to those who cared for more patients daily. This may suggest that the midwives with less workload had fewer negative opinions.

It was revealed in the study that the intrinsic satisfaction scores and general job satisfaction scores of the midwives were high, and their extrinsic satisfaction scores were low. The components of the extrinsic satisfaction dimension are made up of various elements related to work environments such as business policy and management, managers, relations with colleagues and subordinates, working conditions, and salary. The dissatisfaction of the midwives in this dimension may have resulted from factors such as heavy working conditions, a decrease in resting periods, and fear of infection experienced during the pandemic period. Khavayet et al. (2018) found that the job satisfaction levels of midwives working in hospitals are low (Khavayet et al., 2018). Ertekin-Pinar et al. (2017) reported that the extrinsic and general satisfaction of nurses and midwives was moderate (Ertekin-Pinar et al., 2017).

The similarities and differences between the studies carried out on the national and international scale can be thought to have resulted from the countries' healthcare systems, the features of the study samples, and conditions specific to the pandemic.

When the job satisfaction scores of the participants were analyzed in terms of some descriptive variables, significant differences were observed. Participants with 1-5 years of professional experience reported the

highest intrinsic, extrinsic, and overall job satisfaction scores compared to other experience groups.

The findings suggest that the relationship between job satisfaction and professional experience may follow a non-linear trajectory. Participants with lower levels of experience reported higher job satisfaction, possibly due to reduced exposure to burnout and work-related fatigue. In contrast, Jarosova et al. (2016) found that midwives with 26–30 years of experience had higher job satisfaction compared to other groups, which may reflect increased professional stability, role clarity, and adaptation over time. (Jarosova et al., 2016). In our study, single participants were determined to have higher job satisfaction scores compared to married ones. Jung and Kim (2020) reported comparable results in their study (Jung & Kim, 2020). Higher job satisfaction among single participants may be due to fewer family responsibilities and reduced work-life conflict compared to their married counterparts.

In our study, the job satisfaction scores of the midwives who chose the unit they worked on due to assignment and who chose the profession willingly were found to be higher. Similarly, in Şahan's study (2021), the job satisfaction scores of the midwives who chose their profession willingly were determined to be significantly high (Şahan, 2021). The individual's conscious and willing choice of their profession is an important factor that increases job satisfaction (Evans et al., 2020). In our study, the extrinsic and general satisfaction scores of the midwives who had a balanced workload and the intrinsic satisfaction scores of those who had a light workload were found to be high. Working at organizations that have heavy workload will diminish the midwives' ability to provide quality care or to reflect their philosophy of care. Therefore, appropriate planning of the midwives' working hours, shift systems, and cases and workload is important in terms of the efficient provision of midwifery services (Matthews et al., 2022).

The study found that there was high colleague solidarity among midwives, and a significant positive relationship between colleague solidarity and work solidarity. Midwives received the highest score in the emotional solidarity dimension. This result supported our hypothesis that "there is a positive and significant relationship between colleague solidarity and job satisfaction in midwives." In all studies reviewed, it has been emphasized that midwives who feel supported well by their colleagues have an increased level of job satisfaction (Rezace et al., 2023; Sheehy et al., 2021; Bloxsome et al., 2019; Jasiński & Derbis, 2023).

Limitations of the Study

This research was limited to midwives working in public hospitals in Türkiye; therefore, the findings cannot be generalized to midwives working in private hospitals or different healthcare institutions. The use of the online survey method for data collection may have limited the participation of individuals without

internet access or those with low motivation to complete the survey. Additionally, since the study has a cross-sectional design, it is not possible to establish cause-and-effect relationships.

CONCLUSION

It was revealed that approximately 56.4% of the participants scored above the average on the CSNS, indicating a notable level of colleague solidarity among them. In general, it was determined that the participants' intrinsic job satisfaction and general job satisfaction levels were high, but their extrinsic job satisfaction scores were low. Age and the average number of patients given daily care affected the total colleague solidarity score, while age, marital status, midwifery experience period, reason for choosing the unit, choosing the profession willingly, and workload levels were the factors affecting job satisfaction. There was a positive and significant relationship between job satisfaction and colleague solidarity, and emotional solidarity ranked first in providing job satisfaction. According to the results of the study, it would be useful to improve the working conditions of midwives, strengthen their relationships with managers and colleagues, and develop strategies to increase job satisfaction.

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Conflict of Interest

The authors have no conflicts of interest to declare.

Author Contributions

Plan, design: ŞÇ, AE, BB; **Material, methods and data collection:** ŞÇ, AE; **Data analysis and comments:** ŞÇ, AE **Writing and corrections:** ŞÇ, AE, BB.

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Ethical Approval

Institution: Ethics committee approval was received for this study from the Ethics Committee of Kocaeli University

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We conducted this research in accordance with the guidelines in the Declaration of Helsinki.

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