

Selected paper of 6th International Congress of Nursing (ICON-2022) 12 – 15 October 2022 Antalya, Turkey
(ONLINE CONFERENCE)

Factors affecting the level of loneliness of nurses in clinical environments

Kübra Aydın, Ondokuz Mayıs University, Institute of Graduate Education Department of Emergency Nursing Master's Program, Samsun 55200, Turkey, <https://orcid.org/0000-0003-4973-9108>

Esra Danacı*, Bulent Ecevit University, Ahmet Erdogan Vocational School of Health Services, Zonguldak 67000, Turkey, <https://orcid.org/0000-0003-1453-6255>

Zeliha Koç, Ondokuz Mayıs University, Faculty of Health Sciences, Samsun 55200, Turkey, <https://orcid.org/0000-0002-8702-5360>,

Suggested Citation:

Aydın, K., Danacı, E. & Koç, Z. (2022). Factors affecting the level of loneliness of nurses in clinical environments. *New Trends and Issues Proceedings on Advances in Pure and Applied Sciences*. 2022(1), 65-74. <https://doi.org/10.18844/gjpaas.v2022i1.8774>

Received from October 27, 2022; revised from November 09, 2022; accepted from December 29, 2022.

Selection and peer review under the responsibility of Prof. Dr. Nilgun Sarp, International Final University, Faculty of Health Sciences, Kyrenia, North Cyprus

©2022 by the authors. Licensee Birlesik Dunya Yenilik Arastirma ve Yayıncılık Merkezi, North Nicosia, Cyprus.

This article is an open-access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Abstract

This research was conducted as a descriptive study to determine the factors affecting the level of loneliness of nurses in the clinical environment. The research was carried out between 02/15/2019 and 04/15/2019 with the participation of 171 nurses among a total of 459 nurses working in a university hospital. The data were collected using a 22-question information form, which determines the sociodemographic and work-life characteristics of nurses and was prepared by the researcher in line with the literature, and the Loneliness at Work Scale. The data were analyzed using a statistical package program. In this study, it was determined that the scores of the nurses on the Loneliness at Work Scale differed statistically according to some sociodemographic and work-life characteristics. In line with this study, it is recommended to allow nurses to choose the unit they work in, determine strategies that will increase the quality of their work life, increase their job satisfaction, and accordingly, reduce the clinical loneliness of nurses.

Keywords: Clinical environment; nurse; loneliness; work environment.

* * ADDRESS FOR CORRESPONDENCE: Esra Danacı, Lecturer, Bulent Ecevit University, Ahmet Erdogan Vocational School of Health Services, Zonguldak 67000, Turkey.

E-mail address: esradnc89@gmail.com

1. Introduction

Loneliness is a disruptive universal life experience that arises due to the inability of the individual to reach the desired level of social relationship during his life [1-3]. Broadly, loneliness is defined as "a psychological state that results from deprivation and inadequacy in social relations, which does not satisfy the individual". The economic status of individuals, the people they live with, their social environment, gender, family structure, upbringing, education level, and socioeconomic status affect the level of loneliness [4,5]. Moreover, loneliness is not only limited to the social life of individuals but can also be seen in their work life [6]. While the individual does not experience loneliness in his social environment, he can feel lonely in his work life [1].

On the other hand, Wright [7] defines loneliness in work life as "an unpleasant subjective situation that arises because of the difference between the desired and the existing relationships and the powerlessness to overcome this difference". Accordingly, the loneliness experienced in the workplace has two dimensions: social and emotional loneliness. The reason for social loneliness is the lack of social relationships. There is no community where people who feel social loneliness feel like they belong. Also, people who experience emotional loneliness have trouble building close relationships with others. Furthermore, emotional loneliness occurs when the individual's feelings and thoughts are not understood by his teammates [8,9]. It has been reported that loneliness at work may be associated with environmental factors such as the culture in which the individual is raised, family structure, and social support networks; characteristics of working life such as communication with colleagues and managers, workload, organizational climate, and support of managers and teammates; individual factors such as self-confidence, anxiety, bitterness and shyness [7].

However, the services offered in healthcare settings are individual, complex, dynamic, and urgent. Healthcare professionals are an occupational group that works with different technological devices outside of working hours and days, whose duties, authorities, and responsibilities carry vital risks, who work against time, and who are under intense stress. The nurses, who provide care services to healthy/sick individuals 24 hours a day, seven days a week, constitute the largest workforce in this group. In this respect, nurses need a qualified clinical environment to support professional practices for working effectively and efficiently [10,11]. For this to happen, nurses need to have effective communication within the team, be aware of their own emotions, and develop positive coping strategies [12]. Furthermore, effective communication between healthcare professionals creates a healthy clinical environment also strengthens working relationships among team members. Apart from that, building healthy and strong connections between individuals is a crucial part of work life, and it also strengthens the bond between team members. . Lastly, when satisfactory and healthy relationships cannot be built within the team, individuals may feel loneliness and social exclusion [13].

The nurses experience various problems such as heavy workload in the clinical environment, providing care to patients in need of intensive care, working in shifts, not being valued and appreciated by their managers, not being able to participate in the decision-making process, not being satisfied with their work and not being supported by their colleagues, this situation causes work-related stress and tension in nurses, reduces their job satisfaction and complicates their working conditions [14-16]. According to the literature, individuals who experience intense stress in their work life and have low job satisfaction levels have high levels of loneliness [1,17]. In line with the results to be obtained from this study, factors affecting the loneliness levels of nurses will be determined and appropriate strategies will be developed.

1.1. Purpose of the study

This study aimed to determine the factors affecting the loneliness levels of nurses. The study sought answers to the following questions were sought.

- What are the socio-demographic and work-life characteristics of nurses?
- What are the factors affecting the loneliness levels of nurses in the clinical field?

2. Material and methods

2.1. Participants

This descriptive study was carried out with the participation of 171 nurses who were working in a university hospital between 15.02.2019 and 15.04.2019 and agreed to participate in the study. While determining the sample number of the study, the following formula was used to determine the number of individuals in cases where the universe is known [18]: The study sample was calculated as 165 with a 90% confidence limit and 5% error among 459 nurses who are working in the university hospital where the study was conducted. Considering that there may be data loss, the data collection process was completed when 171 nurses were reached. Only volunteer nurses who agreed to participate in the study were included.

2.2. Data collection tools

In this study, data were collected using the "Nurse Information Form" and "The Loneliness at Work Scale". The Nurse Information Form consists of 22 questions that determine the socio-demographic and work-life characteristics of nurses. The questionnaire was tested with a preliminary application in a group of 10 people and the nurses who participated in the pilot study were not included in the sample.

2.2.1. Loneliness at Work Scale

The Loneliness at Work Scale is a five-point Likert-type scale and was developed by Wright [19] and adapted to Turkish by Doğan et al. [20]. It consists of 16 items and two sub-scales: Emotional Deprivation and Social Companionship. The scale was created as a seven-point Likert scale, yet it was arranged as a five-point Likert scale, considering that it is hard to distinguish options such as *sometimes, occasionally, rarely, and very little* during the adaptation to Turkish.

While the Emotional Deprivation sub-dimension of the scale measures the quality of the employees' relationships with their colleagues at work; The Social Companionship sub-dimension measures the perception of the number of relationships at work. Also, this is an easy-to-use and short self-report tool that subjectively evaluates loneliness at work. Accordingly, the level of loneliness in work life increases as the total score that can be obtained from the scale increases. The scale's Cronbach's alpha reliability coefficient was determined as 0.90 in total, 0.87 for the Emotional Deprivation sub-dimension, and 0.83 for the Social Companionship sub-dimension. While in this study, Cronbach's reliability coefficient of the Loneliness at Work Scale was determined as 0.91; Cronbach's reliability coefficients of the Emotional Deprivation and Social Companionship subscales were found to be 0.87 and 0.86, respectively.

2.2.2. Ethical consideration

The ethics committee approval was obtained from the Human Research Ethics Committee before the study. After the nurses who are participating in the study were informed about the study and their informed consent was obtained, the data were started to be collected by the researchers.

2.3. Data collection procedure

It was explained to the nurses that the decision about whether to participate in the study was entirely their own and that the data to be collected from this study would only be used within the study. To collect data, the ethics committee approval was obtained from the institution, and informed consent from the nurses. Data collection took approximately 15-20 minutes.

2.5. Data analysis

The data obtained in this study were analyzed using the IBM SPSS 22 package program, and the normality test of the quantitative data was analyzed by Shapiro-Wilk and Kolmogorov Smirnov tests. The Kruskal Wallis and Mann-Whitney U tests were used for data analysis. Also, the reliability of the scales was analyzed with Cronbach's Alpha. While the quantitative data were presented as median (minimum-maximum), the qualitative data were presented as frequency (percentage). The significance level was taken as $p < 0.05$.

3. Results

Of the nurses participating in the study, 77.8% were female, 22.2% were male; 64.9% were married; %35.1 were single; 66.7% had a bachelor's degree; 90.6% had a nuclear family; 47.4% were employed in internal diseases units; 44.4% were employed in surgical units; 8.2% were employed in intensive care units; 94.2% had been working as unit nurses; 35.7% had been working for 6-10 years; 80.1% had been working in shifts; 67.8% had chosen the profession willingly; 63.2% loved their job; %58.5 are satisfied with the service they work; 60.2% voluntarily chose their department; 52.0% gave care to 6-10 patients; 58.5% evaluated their work life quality as good; 37.4% evaluated their level of job satisfaction as moderate. The mean age of the nurses was 30.7±5.5 years (Table I).

TABLE I
THE DISTRIBUTION OF NURSES' SOCIO-DEMOGRAPHIC AND WORK-LIFE CHARACTERISTICS

Characteristics	n	%	
Age groups (30.7±5.5)	17-26 years	45	26.3
	27-36 years	102	59.6
	37 and above	24	14.1
Gender	Female	133	77.8
	Male	38	22.2
Marital status	Married	111	64.9
	Single	60	35.1
Educational status	Vocational school of health	31	18.1
	Associate degree	13	7.6
	Bachelor's level	114	66.7
	Postgraduate	13	7.6
Family structure	Extended family	16	9.4
	Nuclear family	155	90.6
	Internal units	81	47.4
Service in charge	Surgical units	76	44.4
	Intensive care unit	14	8.2
Duty in service	Unit nurse	161	94.2
	Nurse in charge	10	5.8
Years of employment	1-5 years	55	32.2
	6-10 years	61	35.7
	11-15 years	34	19.9
	16-20 years	21	12.2
Employment status in the hospital	Permanent	114	66.7
	Contracted	57	33.3
Work style	Daytime	34	19.9
	In shifts	137	80.1
Choosing the profession willingly	Yes	116	67.8
	No	55	32.2
Attitude toward the profession	Like	108	63.2
	Dislike	16	9.4
	Undecided	47	27.4
Satisfaction with workplace	Satisfied	100	58.5
	Partly satisfied	65	38.0
	Unsatisfied	6	3.5
Choosing the department willingly	Yes	68	39.8
	No	103	60.2
Number of patients receiving care	1-5 patients	15	8.8
	6-10 patients	89	52.0
	11-15 patients	27	15.8
	16-20 patients	19	11.1
	21 and above	21	12.3
Quality of work life	Excellent	4	2.3

Level of job satisfaction	Very good	12	7.0
	Good	100	58.5
	Bad	51	29.8
	Very bad	4	2.4
	Excellent	7	4.1
	Good	49	28.7
	Moderate	64	37.4
	Partly bad	27	15.8
	Bad	24	14.0

The mean score of the Nurses' Loneliness at Work Scale was 32.2 ± 10.4 , and the median score was 31. On the other hand, the mean scores of the Emotional Deprivation and Social Companionship subscales of the Loneliness at Work Scale were determined as 16.9 ± 6.1 and 15.3 ± 5.2 , respectively. The median scores of the Emotional Deprivation and Social Companionship subscales of the Loneliness at Work Scale were found to be 17 and 14, respectively (Table II).

TABLE II
THE MEAN SCORES AND THE MEDIANS OF THE LONELINESS AT WORK SCALE AND ITS SUBSCALES

Loneliness at Work Scale	Average \pm S.D	Median (Min-Max)
Emotional Deprivation	16.9 ± 6.1	17 (9 - 37)
Social Companionship	15.3 ± 5.2	14 (7 - 31)
Total	32.2 ± 10.4	31 (16 - 67)

Min.: Minimum. Max.: Maximum. S.D: Standard Deviation

Accordingly, the total median score of the Loneliness at Work Scale differed according to the service where the nurses worked ($p=0.021$), satisfaction with the service they worked ($p<0.001$), number of patients that took care ($p=0.021$), and job satisfaction levels ($p<0.001$). Also, the total median score of the Loneliness at Work Scale was higher in nurses who worked in the intensive care unit, was dissatisfied and partially satisfied with the service they worked, gave care to 1-5 patients daily, and defined their job satisfaction level as partly bad.

According to the results, the median score of the Loneliness at Work Scale did not differ by the nurses' age, gender, marital status, educational status, family structure, duty in the service, years of employment, employment status in the hospital, work style, willingly choosing the profession, attitude towards the profession, and choosing the department willingly ($p>0.05$) (Table III).

TABLE III
THE COMPARISON OF NURSES' SOCIO-DEMOGRAPHIC AND WORK-LIFE CHARACTERISTICS AND THE TOTAL SCORE OF THE LONELINESS AT WORK SCALE

Characteristics	Median (Min-Max)	Test value p
Age groups	17-26 years	30 (16 - 67)
	27-36 years	31 (16 - 58)
	37 and above	34 (16 - 67)
Gender	Female	U=2484.500
	Male	30 (16 - 67) p=0.874
Marital status	Married	U=3062.500
	Single	32 (16 - 67) p=0.386

	Vocational school of health	29 (16 - 67)	
Educational status	Associate degree	25 (16 - 47)	$\chi^2=3.590$ $p=0.390$
	Bachelor's level	31 (16 - 58)	
	Postgraduate	35 (16 - 45)	
	Extended family	37.5 (16 - 50)	
Family structure	Nuclear family	31 (16 - 67)	U=943.500 $p=0.115$
	Internal units	31 (16 - 67)AB	
Service in charge	Surgical units	30 (16 - 58)A	$\chi^2=7.750$ $p=0.021$
	Intensive care unit	39 (24 - 67)B	
Duty in service	Unit nurse	31 (16 - 67)	U=754.500 $p=0.739$
	Nurse in charge	31 (16 - 44)	
	1-5 years	32 (16 - 67)	
Years of employment	6-10 years	31 (16 - 48)	$\chi^2=4.439$ $p=0.218$
	11-15 years	30.5 (16 - 58)	
	16-20 years	36 (16 - 67)	
	Permanent	31 (16 - 58)	
Employment status in the hospital	Contracted	33 (16 - 67)	U=2741.500 $p=0.096$
	Daytime	31 (16 - 48)	
Work style	In shifts	31 (16 - 67)	U=2274.500 $p=0.833$
	Yes	31 (16 - 67)	
Choosing the profession willingly	No	30 (16 - 67)	U=2884.500 $p=0.312$
	Like	31 (16 - 58)	
Attitude toward the profession	Dislike	30 (24 - 58)	$\chi^2=1.561$ $p=0.458$
	Undecided	32 (16 - 67)	
	Satisfied	30 (16 - 58)A	
Satisfaction with workplace	Partly satisfied	34 (16 - 67)B	$\chi^2=21.322$ $p<0.001$
	Unsatisfied	39.5 (29 - 50)B	
Choosing the department willingly	Yes	30 (16 - 58)	U=3041.000 $p=0.145$
	No	32 (16 - 67)	
Number of patients receiving care	1-5 patients	44 (25 - 67)A	$\chi^2=11.601$ $p=0.021$

	6-10 patients	30 (16 - 58)B	
	11-15 patients	33 (16 - 67)AB	
	16-20 patients	32 (19 - 48)AB	
	21 patients and above	32 (16 - 51)AB	
	Excellent	16 (16 - 50)A	
	Good	30 (16 - 58)A	
Level of job satisfaction	Moderate	32 (16 - 45)A	$\chi^2=23.534$ $p<0.001$
	Partly bad	39 (16 - 67)B	
	Bad	31.5 (16 - 67)AB	

χ^2 : Kruskal-Wallis H Test Statistics, U: Mann-Whitney U Test Statistics, A-B: There is no difference between groups with the same letter.

4. Discussion

The results of this study, which was conducted to determine the factors affecting the loneliness levels of nurses working in a university hospital located in the Western Black Sea Region in the north of Turkey, were discussed in line with the relevant literature.

The mean score of the Nurses' Loneliness at Work Scale was 32.2 ± 10.4 . On the other hand, the mean scores of the Emotional Deprivation and Social Companionship subscales of the Loneliness at Work Scale were determined as 16.9 ± 6.1 and 15.3 ± 5.2 , respectively. When the mean scores of the Nurses' Loneliness at Work Scale are evaluated, it can be said that their loneliness level is low. In a study conducted by Güngörmüş [12], which supports our study results, the mean score of the nurses' Loneliness at Work Scale was 31.8 ± 10.8 ; Plus, in the study of Ürkmez [21], it was found to be 34.14 ± 10.19 .

In another study by Kaynak et al. [22], in which they examined the loneliness levels of nurses, the loneliness level of nurses was low. Despite the study results, Gencer [23] reported that while the mean score of the nurses' Loneliness at Work Life scale was determined as 42.80 ± 0.08 , the loneliness level of nurses in work life was slightly above the average. According to the relevant literature, when effective interpersonal relationships cannot be built, individuals' loneliness levels increase; the Reasoning and decision-making abilities of individuals who experience loneliness in work life decrease; Their work performance decreases; Their intention to leave their job increases, and their job satisfaction and organizational commitment decrease [13, 24]. In this respect, the increase in the loneliness levels of nurses in the clinical environment may cause a decrease in team communication, an increase in medical errors, a decrease in the quality of nursing care, and a worsening in patient care outcomes.

Accordingly, the total mean score of the Loneliness at Work Scale differed by the nurses' service in charge, satisfaction with the service they worked, the number of patients they cared for, and their job satisfaction levels. The median score of the Loneliness at Work Scale was higher for the nurses who worked in the intensive care unit, was dissatisfied or partly satisfied with the service they worked for, gave care to 1-5 patients daily, and evaluated their job satisfaction level as partly bad. In the studies conducted by Güngörmüş [12] and Gencer [23], which support our study results, there is a statistically significant relationship between the unit where the nurses work and the total score of the Loneliness at Work Scale. Despite the study results, in another study by Ürkmez [21] in which the loneliness levels of nurses were examined, there was no significant relationship between the unit where the nurses work and the total score of the Loneliness at Work Scale.

According to the literature, a learning-oriented clinical environment, teamwork, constructive and understanding management, and the time spent with patients increase the nurses' perception of meaningfulness in the work environment; Also, when nurses achieve harmony between their work and their sense of value, identity, and purpose, their job satisfaction increases [8, 25,26] . This situation is related to the nurses' feelings and attitudes toward their profession; Therefore, nurses who love their work have better team communication and less loneliness in the clinical environment.

In line with the results, the median score of the Loneliness at Work Scale did not differ by the nurses' age, gender, marital status, educational status, family structure, duty in the service, years of employment, employment status in the hospital, work style, choosing the profession willingly, attitude towards the profession, and choosing the department willingly. In some studies conducted on this subject and supporting our study results, no statistically significant relationship was found between age , gender, marital status, educational status, years of employment, work style [21,23], and the total score of the nurses' Loneliness at Work Scale.

5. Conclusion

This research was conducted as a descriptive study to determine the factors affecting the level of loneliness of nurses in the clinical environment. The research was carried out between 02/15/2019 and 04/15/2019 with the participation of 171 nurses among a total of 459 nurses working in a university hospital. Using a 22-question questionnaire, which was prepared by the researcher according to the literature, and the Loneliness at Work Scale, the researcher collected data on nurses' sociodemographics and work-life characteristics. The total mean score of the Loneliness at Work Scale was found to be 32.2±10.4.

According to this study, the scores of the Loneliness in Work Life Scale differed statistically according to some sociodemographic and work-life characteristics of the nurses. As stated in the study results, the levels of loneliness in the clinical area were higher in nurses who are working in the intensive care unit, are dissatisfied / partly satisfied with the service they worked, are providing care to 1-5 patients, and described their job satisfaction level as partly bad. As a result of the findings, it is recommended to provide nurses with the opportunity to choose the service they work for, to increase their job satisfaction by determining strategies that will increase their work-life quality, and reduce the clinical loneliness of nurses accordingly.

Conflict of Interest

We have no conflicts of interest to disclose.

References

- [1] B. Demirbaş, G.Haşit, "Loneliness at Workplace and Its Effect on the Intention to Leave: An Application on the Academicians", *Anadolu University Journal of Social Sciences*, vol. 16(1), pp. 137-158, 2016.
- [2] F.F. Zhao, "The association of loneliness, mindfulness, and optimism with self-directed learning among nursing students in China: A cross-sectional study", *Journal of Professional Nursing*, Vol. 38, pp.65-73. 2022. <https://doi.org/10.1016/j.profnurs.2021.11.009>
- [3] R. Fontanini, E. Visintini, G. Rossettini, D. Caruzzo, J. Longhini, and A. Palese, "Italian Nurses' experiences during the COVID-19 pandemic: a qualitative analysis of internet posts", *International Nursing Review*, vol. 68, no. 2, pp.238-247, 2021. <https://doi.org/10.1111/inr.12669>
- [4] Z. Koç, and Z. Sağlam, "Loneliness in A Group University Nursing Students", *Journal of Social Policy Studies*, vol. 16, no. 16, pp2-73, 2009.
- [5] A. Hajek, and H.H. König, "Do loneliness and perceived social isolation reduce expected longevity and increase the frequency of dealing with death and dying? Longitudinal findings based on a nationally representative sample", *Journal of the American Medical Directors Association*, vol. 22, no. 8, pp.1720-1725, 2021.<https://doi.org/10.1016/j.jamda.2021.04.004>

- Aydın, K., Danacı, E. & Koç, Z. (2022). Factors affecting the level of loneliness of nurses in clinical environments. *New Trends and Issues Proceedings on Advances in Pure and Applied Sciences*. 2022(1), 65-74. <https://doi.org/10.18844/gipaas.v2022i1.8774>
- [6] K.M. Kealeboga, E. I. Ntsayagae, and O. Tsimba, "Psychological impact of COVID-19 on nurses caring for patients during COVID-19 pandemic in Gaborone," *Nursing Open*, 2022. <https://doi.org/10.1002/nop2.1557>
- [7] S. L. Wright, "Loneliness in the Workplace." Unpublished Doctoral Dissertation, Christchurch (New Zealand), University of Canterbury, 2005. <http://ir.canterbury.ac.nz/handle/10092/1368>
- [8] M. Amarat, M. Akbolat, Ö. Ünal, B.G. Karakaya, "The mediating role of work alienation in the effect of workplace loneliness on nurses' performance," *Journal of Nursing Management*, vol. 27, no.3, 553-559, 2019. <https://onlinelibrary.wiley.com/doi/abs/10.1111/jonm.12710>
- [9] J. Sørensen, D.S. Nielsen, and G.T. Pihl, "It's a hard process—Nursing students' lived experiences leading to dropping out of their education; a qualitative study," *Nurse Education Today*, pp.105724, 2023. <https://doi.org/10.1016/j.nedt.2023.105724>
- [10] T. Çatak, and N. Bahçecik, Determination of nurses' quality of work life and influencing factors. *Clinical and Experimental Health Sciences*, vol. 5, no. 2, pp. 85-95, 2015. <https://search.proquest.com/openview/c21d72e2ba3c2933c140342db4c817e8/1?pq-origsite=gscholar&cbl=2026633>
- [11] A. Arslan, S. Yener, and J. A. Schermer, "Predicting workplace loneliness in the nursing profession," *Journal of nursing management*, vol.28, no. 3, pp.710-717, 2020. <https://doi.org/10.1111/jonm.12987>
- [12] K. Güngörmüş, "Determining the relationship between the loneliness nurses experience in their careers with their emotional intelligence," Atatürk University-Graduate School of Health Sciences, Erzurum, Postgraduate Thesis, 2011.
- [13] F. A. Ay, "The relationships between abusive management, workplace loneliness, and organizational cynicism: A study for health professionals," *The Journal of International Social Research*, vol. 8, no.41, pp. 1116-26, 2015.
- [14] H. Alan, and A. Yıldırım, "The Quality of Work Life of Nurses and Influential Factors," *Journal of Health and Nursing Management*, vol. 3, no. 2, pp. 86-98. 2016.
- [15] E. Danacı, and Z. Koç, The association of job satisfaction and burnout with individualized care perceptions in nurses. *Nursing ethics*, vol. 27, no. 1, pp. 301-315, 2020. <https://journals.sagepub.com/doi/pdf/10.1177/0969733019836151>
- [16] R.E. Wood, R.E. Brown, and P.A. Kinser, "The connection between loneliness and burnout in nurses: An integrative review," *Applied Nursing Research*, vol.66, pp.151609, 2022. <https://doi.org/10.1016/j.apnr.2022.151609>
- [17] A. Keser, "The Correlation Between Loneliness at Work-Life and Organizational Citizenship and a Research on Teachers," *Hak İş International Journal of Labour and Society*, vol. 3, no.7, pp. 178-197. 2014.
- [18] Y. Öztürk, "Evaluation of Awareness and Reasons About Pap Smear Test of Female patients Who Are Not Tested of Pap Smear," Eskişehir Osmangazi University-Graduate School of Health Sciences, Eskişehir, Postgraduate Thesis, 2017.
- [19] S.L. Wright, C.D. Burt, and K.T. Strongman, Loneliness in the workplace: Construct definition and scale development. *New Zealand Journal of Psychology*, vol. 35, no.2, pp. 59-68, 2006. <http://ir.canterbury.ac.nz/handle/10092/2751>
- [20] T. Doğan, B. Çetin, and M. Z. Sungur, "Reliability and validity of the Turkish version of Loneliness at Work Scale", *Anatolian Journal of Psychiatry*, vol. 10, no. 6, pp 271-277, 2009. <https://acikerisim.sakarya.edu.tr/handle/20.500.12619/44337>
- [21] M. Ürkmez, "Relationship Between The Level of Loneliness at the Workplace of Nurses and Their Life Satisfaction and Organizational Trust," Istanbul University- Cerrahpasa Institute of Graduate Studies, Istanbul, Postgraduate Thesis, 2018.
- [22] S. Kaynak, S. Duran, A. Karadaş, "Determination of the Relationship Between Internet Addiction and the Level of Loneliness Among Nurses," *Journal of Health and Nursing Management*, vol. 1, no.5, pp. 27-35, 2018. <https://shydergisi.org/en/jvi.aspx?pdire=shyd&plng=eng&un=SHYD-93064&look4=>

- [23] M. Gencer, "Social media addiction and loneliness at work: A research among the nurses", Istanbul University-Cerrahpasa Institute of Graduate Studies, Istanbul, Postgraduate Thesis, 2020.
- [24] E. Bilgener, and M.Çankaya, "The Effects of Business Life Loneliness on Assessing the Working Environment: A Research on Nurse Occupational Groups," *Journal of the Human & Social Science Researches*, vol. 8, no.4, 2485-2500, 2019). <https://dergipark.org.tr/en/pub/itobiad/article/590211>
- [25] L. Galuska, J. Hahn, E.C. Polifroni, G. Crow, "A narrative analysis of nurses experience with meaning and joy in nursing practice," *Nursing Administration Quarterly*, vol. 42, no. 2, 154-163, 2018. <https://www.ingentaconnect.com/content/wk/naq/2018/00000042/00000002/art00012>
- [26] C. L. Pavlish, and R. J. Hunt, "An Exploratory study about meaningful work in acute care nursing," *Nursing Forum*, vol. 47, no. 2,113-122, 2012. <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1744-6198.2012.00261.x>