ORIGINAL ARTICLE

WILEY

Factors affecting nurses' professional commitment during the COVID-19 pandemic: A cross-sectional study

Secil Duran PhD Candidate, RN, Lecturer[1] (iD) |
Isa Celik PhD Candidate, RN, Research Assistant[2] | Bekir Ertugrul MSc, RN, Lecturer[3] |
Serife Ok MSc, RN, Nurse[4] | Sevil Albayrak PhD, RN, Associate Professor[5]

[1]Health Services Vocational School, Gumushane University, Gumushane, Turkey

[2]Dokuz Eylul University Faculty of Nursing, Inciraltı, Turkey

[3]Health Services Vocational School, Baskent University, Ankara, Turkey

[4]Yozgat Bozok University Hospital, Yozgat, Turkey

[5]Faculty of Health Sciences, Kırıkkale University, Kırıkkale, Turkey

Correspondence
Secil Duran, Gumushane University Health Services Vocational School, Gumushane, Turkey.
Email: secilduran.91@gmail.com

Abstract

Aim: This study aims to investigate the factors affecting nurses' professional commitment during the COVID-19 pandemic.

Background: Commitment to a profession requires doing the best for that profession. In the case of the nursing profession, professional commitment gains greater importance in times of crisis, like the COVID-19 pandemic.

Methods: This cross-sectional study was conducted with 389 nurses in the Turkish state hospital. Institutional permissions, ethical approval and written consents from the participants were obtained before carrying out the study.

Results: The participants' mean Perceived Organizational Obstruction Scale score was 20.07 ± 8.06 (min = 5.0, max = 35.0), and their mean Nursing Professional Commitment Scale score was 71.20 ± 11.94 (min = 30.0, max = 103.0). Socio-demographic variables and perception of organisational obstruction predicted 36.7% of the variance in the professional commitment ($p < .001$).

Conclusion: A road map based on the study results was developed for hospitals and nurse managers to maintain and increase nurses' professional commitment.

Implications for Nursing Management: The results of this study may help institutions and nurse managers understand the factors affecting professional commitment during the pandemic as a whole, as well as determine primary strategies based on the importance of these factors.

KEYWORDS
COVID-19, nursing, professional commitment

1 | INTRODUCTION

COVID-19 was first diagnosed in Wuhan, a city in the province of Hubei, China, in December 2019 and started to quickly spread around the world. The World Health Organization (WHO) declared the COVID-19 virus a pandemic on 11 March 2020 (Huang et al., 2020; WHO, 2020). On 21 November 2020, there were 57 million COVID-19 cases and 1 million 400 thousand deaths due to

COVID-19 in the world. In Turkey, as of 21 November 2020, there were 440 thousand COVID-19 cases and 12 thousand deaths due to COVID-19. Globally, the number of cases and deaths is increasing rapidly (Republic of Turkey Ministry, 2020; WHO, 2020a).

All health care professionals, especially nurses, have been seriously affected by the pandemic. During this period, health care professionals have encountered heavier workloads, longer working hours, a more stressful working environment, and insufficient

medical and protective materials (de Pablo et al., 2020; Jun et al., 2020). Health care professions working in hospitals where individuals infected with COVID-19 are admitted and providing care to those individuals increase their risk of infection (Moazzami et al., 2020).

Health care professionals have continued to try and fulfil both their work-related and family-related responsibilities during the pandemic. However, fear of infecting family members negatively affects health care professionals' family relationships which causes them to self-isolate (Ehrilch et al., 2020; Goldfarb et al., 2021). These negative circumstances encountered both in their work and in social life have increased the incidence rate of depression, anxiety and sleep disorder symptoms in health care professionals (Lai et al., 2020; Pappa et al., 2020). Various physiological and psychological negative situations experienced by health care professionals due to the COVID-19 pandemic have been shown to increase their perception of organisational obstruction and decrease their professional commitment, which can in turn accelerate the turnover process of health care professionals (Juan et al., 2020; Labrague & De los Santos, 2020).

Professional commitment is defined as the harmony between an individual's beliefs and professional objectives; greater harmony leads to greater personal effort. Professional commitment is composed of three factors: belief in values of the chosen profession, effort to understand these values and determination to maintain membership in the profession (Chang et al., 2015; Meyer et al., 1993). There are numerous factors affecting professional commitment, such as working conditions, work–family conflict, socio-demographic characteristics (age, gender, marital status, etc.) and organisational obstruction (Benligiray & Sönmez, 2011; Meyer et al., 1993). During the pandemic, there have been significant changes in working conditions and work–family relationships (de Pablo et al., 2020; Ehrilch et al., 2020; Goldfarb et al., 2021; Jun et al., 2020). Organisational obstruction refers to the measures instituted by an organisation that prevent employees from reaching their goals and harming their well-being. The pandemic has caused a significant decrease in health care professionals' levels of well-being (de Pablo et al., 2020; Jun et al., 2020). In cases when organisational obstruction increases, the professional commitment of employees decreases, which leads to higher rates of employee turnover (Gibney et al., 2009; Hoş & Oksay, 2015).

Nursing is a profession that requires a high level of professional commitment, as well as commitment to lifelong learning. The future of nursing will be determined by nurses who are committed to the profession. Nurses must demonstrate strong professional commitment in order to defend patients' rights and to perform their job in the best way (Gauthier, 2011). The qualitative study by Kalateh Sadati et al., (2021) on the experience of nurses during the COVID-19 pandemic included the comments of nurses who fulfilled their duty despite the heavy working conditions and many risks. One of the nurses commented, 'Look, if I don't want to come, who will come? Who will care for people? These are our citizens. We have a

professional commitment and responsibility'; showing that professional commitment is one of the main factors affecting nurses' jobs during the pandemic (Kalateh Sadati et al., 2021).

Nurses with higher professional commitment will continue their job, fulfil their duty and save the lives of millions of people during this difficult period. Therefore, it is critically important to examine the factors affecting nurses' professional commitment during the pandemic.

1.1 | Research aim

This study was designed to investigate the factors affecting nurses' professional commitment during the pandemic. The results of this study may help institutions and nurse managers to understand the factors affecting nurses' professional commitment and take effective measures to increase professional commitment.

2 | METHODS

2.1 | Research design and samples

The study used a descriptive, cross-sectional research design. The study population included 600 nurses working in three state hospitals located in different cities of Turkey. These hospitals were chosen from the different cities to increase sample diversity. All of these hospitals included an emergency service, clinical service, intensive care unit and surgery rooms. COVID-19 patients receive treatment in all of these hospitals. At least 10 participants per predicting variable are appropriate for regression equations involving six or more predictors. It is also reported that when circumstances allow, having approximately 30 participants per variable better enables detection of a small effect size (VanVoorhis & Morgan, 2007). Therefore, it was determined that the sample size should be 400 participants for the regression analysis, based on the inclusion of 35 participants per variable and on the possibility of data loss (35×10 (number of variables) + 50 (possibility of data loss) = 400). The nurses who worked in any of the three state hospitals and agreed to participate in the study were included. The number of nurses required from each hospital was determined using the stratified sampling method, and the convenience sampling method was applied to select the participants from the pool created from stratified sampling (Polit & Back, 2017). At the end of the data collection process, 389 nurses voluntarily participated in the study and completely filled out the data collection forms.

2.2 | Instrumentation

The data were collected using a socio-demographic form, the Perceived Organizational Obstruction Scale and the Nursing Professional Commitment Scale.

2.2.1 | Socio-demographic form

This form was developed by the researchers of this study and included 9 questions about age, gender, education status, number of years working as a nurse, family support, choice of profession, professional association membership, job satisfaction and intention to leave the job.

2.2.2 | The perceived organizational obstruction scale

This scale was developed by Gibney et al. in 2009 to determine employee perception of organisational obstruction. Its Turkish validity and reliability study were carried out by Koçak in 2019. The scale consists of 5 items with a single dimension and no subscales (Table 1). The items measured with 7-point Likert-type scale (1 Strongly disagree–7 Strongly agree). In the original version, Cronbach's alpha value was 0.86, while in the Turkish validity and reliability study, the value was 0.89. The scale is a 7-point Likert-type scale (1 Strongly disagree–7 Strongly agree) and there are no negative reverse-scored items. The total score on this scale ranges from 5 to 35 points, and it has no cut-off point. Higher scale scores indicate higher perception of organisational obstruction (Gibney et al., 2009; Koçak, 2019).

2.2.3 | Nursing professional commitment scale

This scale was developed by Lu, Chiou, and Chang in 2000 to determine nurses' level of professional commitment. Its Turkish validity and reliability study was carried out by Çetinkaya, Özmen, and Bayık Temel in 2015. The scale consists of 26 items and 3 subscales: willingness to make an effort (items 1–13), maintaining professional membership (items 14–21) and belief in the goals and values (items 22–26) (Table 1). In the original version, Cronbach's alpha value was 0.94, while in the Turkish validity and reliability study, the value was

0.90. The scale is a 4-point Likert-type scale (1 Strongly disagree–4 Strongly agree), and it has 9 reverse-scored items (items 14, 15, 16, 17, 18, 19, 20, 21 25). The total score on this scale ranges from 26 to 104 points, with higher scores indicating higher professional commitment. The scale has no cut-off point (Çetinkaya et al., 2015; Lu et al., 2000).

2.3 | Data collection

The data were collected by the researchers between 15 June 2020 and 15 August 2020 from three hospitals located in three cities in Turkey. Before the data collection process, permissions to use the scales were received from their respective authors, ethical approval was granted to conduct the study, and authorizations to perform the study were obtained from the respective hospitals. To conduct the data collection process, researchers personally visited the hospitals, informed the participants about the study and obtained written consents from those who agreed to participate. Face masks, social distancing and hygiene rules were strictly followed during the data collection due to COVID-19. The data were collected based on self-reports, and it took approximately 15 min for the participants to complete the data collection tools.

2.4 | Data analysis

Data were analysed with the SPSS 22.0 program (SPSS Inc.). The general characteristics of the participants were evaluated and presented as frequencies and percentages. The Shapiro–Wilk test was used to test for normality ($p > .05$). Linear regression analysis (enter method) was applied to investigate the prediction level of independent variables (such as age, education status, job satisfaction and perception of organisational obstruction) for nurses' professional commitment. Before conducting the multiple linear regression analysis, multicollinearity and data normality were checked. Significance level was accepted as $p < .05$.

TABLE 1 Study measurement tools

Scales	Subscales	Item example
Nursing Professional Commitment Scale	Willingness to make an effort	*I will influence the development of nursing through my efforts and participation
	Maintaining professional membership	*If the opportunity allowed, I would change my profession
	Belief in the goals and values	*I think nursing provides important contributions to society
Perceived Organizational Obstruction Scale	No subscales	*My institution prevents me from achieving my professional goals
		*My institution negatively affects my well-being
		*My institution prevents me from achieving my personal goals

3 | RESULTS

Table 2 shows the participants' socio-demographic characteristics distribution and their mean scores on the Perceived Organizational Obstruction Scale and the Nursing Professional Commitment Scale. Of the 389 nurses included in the study, 83.5% were female ($n = 325$), their mean age was 29.47 ± 5.88, and the mean number of years they had been working as a nurse was 6.85 ± 5.83. Moreover, 71.5% ($n = 278$) had an undergraduate degree, and 9.8% ($n = 38$) had a postgraduate degree. The participants' mean Perceived Organizational Obstruction Scale score was 20.07 ± 8.06 (min = 5.0, max = 35.0), their mean Nursing Professional Commitment Scale score 71.20 ± 11.94 (min = 30.0, max = 103.0), their mean willingness to make an effort subscale score 34.33 ± 6.53 (min = 13, max = 52), their mean maintaining professional membership subscale score 21.87 ± 4.95 (min = 8, max = 32) and their mean belief in the goals and values subscale score 15.00 ± 2.22 (min = 5, max = 20).

After completion of the study, Cronbach's alpha values were calculated for the reliability analyses of the scales used. Cronbach's alpha value of the Perceived Organizational Obstruction Scale was 0.91 and that of the Nursing Professional Commitment Scale was 0.90. The literature recommends that Cronbach's alpha value be above 0.80 to consider a measurement tool reliable (Şencan, 2005).

The results from this study meet the required criteria presented in the literature. The normal distribution of the professional commitment scale score was examined by applying the Shapiro–Wilk test, and the result was $p = .25$, indicating that the scale scores were normally distributed (George & Mallery, 2019).

The predictive value of the nurses' socio-demographic variables and their perception of organisational obstruction on their professional commitment was investigated using multiple linear regression analysis. The model created from the results of the analysis explained 36.7%, a statistically significant value, of the variance in professional commitment ($F = 21.92$, $p < .001$). Based on order of importance, the variables of intention to leave the profession ($\beta = -0.337$; $p < .001$), choice of profession ($\beta = -0.211$; $p < .001$), family support ($\beta = 0.153$; $p < .001$), perception of organisational obstruction ($\beta = -0.127$; $p = .005$), job satisfaction ($\beta = 0.126$; $p = .007$) and education status ($\beta = 0.086$; $p = .049$) predicted professional commitment at a statistically significant level (Table 3). A single unit increase in the perception of organisational obstruction score was correlated with a 0.188 point decrease in the professional commitment score. While increase in the family support was correlated with the increase in professional commitment score, not choosing the profession willingly was correlated with a decrease in the professional commitment score.

TABLE 2 Characteristics of the participants and mean scale scores ($n = 389$)

Characteristics	Mean	SD
Age	29.47	5.886
Number of Years in Nursing Profession	6.85	5.838
Perceived Organizational Obstruction Scale score	20.0746	8.06079
Nursing Professional Commitment Scale score	71.2057	11.94376

	Categories	N	%
Gender	Female	325	83.5
	Male	64	16.5
Education	High School	40	10.3
	Associate degree	33	8.5
	Undergraduate degree	278	71.5
	Postgraduate	38	9.8
Job satisfaction	Low	84	21.6
	Moderate	249	64.0
	High	56	14.4
Family support	Low	166	42.7
	Moderate	193	49.6
	High	30	7.7
Intention to leave the job	Yes	116	29.8
	No	273	70.2
Choice of profession	Willingly	258	66.3
	Not willingly	131	33.7
Professional association membership	Yes	99	25.4
	No	290	74.6

TABLE 3 The effect of socio-demographic variables and perception of organizational obstruction on professional commitment

Independent variables	Unstandardized coefficients		Standardized coefficients	t	p	95.0% CI
	B	SE	β			
(Constant)	68.616	5.253		13.062	<0.001*	58.287 to 78.945
Gender (*R*: Female)						
Male	0.633	1.385	0.020	0.458	0.648	−2.089 to 3.356
Age	−0.148	0.171	−0.073	−0.865	0.387	−0.485 to 0.189
Education	1.378	0.697	0.086	1.977	0.049*	0.007 to 2.749
Total number of years working as a nurse	0.025	0.173	0.012	0.143	0.886	−0.316 to 0.365
Job satisfaction	2.528	0.939	0.126	2.694	0.007*	0.683 to 4.374
Family support	2.960	0.818	0.153	3.617	<0.001*	1.351 to 4.569
Intention to leave the job (*R*: No)						
Yes	−8.781	1.199	−0.337	−7.322	<0.001*	−11.139 to −6.423
Choice of profession (*R*: Willingly)						
Not willingly	−5.322	1.080	−0.211	−4.926	<0.001*	−7.446 to −3.198
Professional association membership (*R*: Yes)						
No	−1.589	1.141	−0.058	−1.392	0.165	−3.833 to 0.656
Perceived organisational obstruction level	−0.188	0.066	−0.127	−2.837	0.005*	−0.319 to −0.058

Notes: Durbin–Watson = 2.070; F = 21.92, p < .001; R = 0.606; R^2 = 0.367; Adjusted R^2 = 35.0%.

Abbreviations: CI, confidence interval; SE, standard error; β, standardized regression coefficient.

*Significance level was accepted as p < .05.

4 | DISCUSSION

This study investigates the factors affecting nurses' professional commitment during the COVID-19 pandemic. Study results may contribute to institutions and nurse managers to increase nurses' professional commitment during the COVID-19 pandemic and similar crises.

The level of professional commitment is one of the most important factors affecting nurses' turnover rate (Haydari et al., 2016). Previous studies have reported that as nurses' level of professional commitment increases, their intention to leave the profession decreases accordingly (Chiang et al., 2016; Gellatly et al., 2014). In this study, the mean Nursing Professional Commitment Scale score was 71.20 ± 11.94 (Table 2), which indicates that nurses' professional commitment level was above average. However, the pandemic affects numerous events in our lives and puts professional commitment into a more fragile position (Juan et al., 2020; Labrague & De los Santos, 2020). Increased workload, longer working hours, a more stressful working environment, insufficient medical and protective materials and disrupted social relationships can negatively affect professional commitment (de Pablo et al., 2020; Ehrilch et al., 2020; Goldfarb et al., 2021; Jun et al., 2020). Nurses' professional commitment may decrease even more in the long term if factors affecting the professional commitment are not determined and necessary measures are not taken by institutions and nurse managers.

An increase in the perception of organisational obstruction has been shown to increase turnover rate (Koçak, 2019). In this study, the mean Perceived Organizational Obstruction Scale score was 20.07 ± 8.06 (Table 2), which indicates that nurses' perception of organisational obstruction was above average. It is a risk for institutions if the perception of organisational obstruction is above the average. Increased perception of organisational obstruction in employees can accelerate the turnover process (Juan et al., 2020; Labrague & De los Santos, 2020). The pandemic may increase the perception of organisational obstruction by causing heavier workloads, longer working hours and a riskier and more stressful working environment (de Pablo et al., 2020; Jun et al., 2020; Moazzami et al., 2020). Therefore, institutions and nurse managers can prioritize developing strategies to reduce the perception of organisational obstruction.

In this study, socio-demographic variables and perception of organisational obstruction predicted 36.7% of the variance in the Professional Commitment Scale score (Table 3). According to this result, a significant portion of the professional commitment score, which is affected by numerous factors, was explained by 10 variables. In the regression analysis, examination of the variables that were found to provide a statistically significant prediction of the Professional Commitment Scale score showed that the variable of 'intention to leave the profession' was first in order of importance. The Professional Commitment Scale scores of the nurses who intended to leave the profession were lower than those of the nurses

who did not intend to leave. There is a constant active relationship between intention to leave the profession and professional commitment level (Arslan Yürümez & Kocaman, 2016; Sabancıoğulları & Doğan, 2015).

The second variable in order of importance was 'choice of profession'. Nurses who chose the profession willingly had higher professional commitment than those who did not choose the profession willingly (Table 3). As is the case throughout the world, there is an insufficient number of nurses in Turkey (WHO, 2020b). Therefore, countries employ nurses regularly to make up for the deficiency. This guarantees employment for nursing graduates. Studies have found that more than half of nursing students do not choose the nursing department willingly, but rather, choose it on account of the high possibility of employment (Alkaya et al., 2018; Natan & Becker, 2010; Özdelikara et al., 2016). When employment opportunities are more important than internal motivation in choosing a profession, this negatively affects professional commitment.

In examining the variables determined in the regression analysis to provide a statistically significant prediction of the Professional Commitment Scale score, it was found that the third variable in order of importance was 'family support'; that is, as the nurses' family support increased, so did their professional commitment level (Table 3). Family support is defined as the social and psychological support provided by the family members of nurses who work under difficult conditions. One of the most important obstacles to family support is work–family conflict, which is defined as 'a kind of inter-role conflict wherein role pressures arising from work and family spheres are mutually incompatible in some respects' (Greenhaus & Beutell, 1985). There are numerous factors affecting work–family conflict, including age, marriage, number of children, workload and working shifts. Work–family conflict is a significant problem in nursing because of the demanding work conditions, such as the exhausting shifts and the physical and emotional toll of the workload. As work–family conflict increases, there is an increased risk of burnout and the psychological health of nurses is negatively affected. Moreover, higher burnout levels have negative effects on the quality of practice and patient health (Galletta et al., 2019; Wang & Tsai, 2014). When nurses attribute the family stress caused by burnout and psychological problems to their work, this can negatively affect their professional commitment and strengthen their intention to leave the profession.

The fourth variable, in order of importance, determined to be statistically significant in predicting Professional Commitment Scale score according to the regression analysis was 'perception of organizational obstruction'. As the nurses' perception of organisational obstruction increased, their professional commitment decreased accordingly (Table 3). Organisational obstruction is defined as the measures instituted by an organisation that keep employees from reaching their goals and harm their well-being (Gibney at al., 2009). Factors such as a stressful work environment, obstruction of career goals, lack of support from colleagues and problems with managers increase the perception of organisational obstruction, the results of which increase nurses' intentions to leave the profession and

decreases their professional commitment. A supportive work environment is one of the most important factors in reducing the perception of organisational obstruction (Lu et al., 2005; Liu et al., 2018; Chang et al., 2019; Ten Hoeve et al., 2020).

The fifth variable, in order of importance, determined to be statistically significant in predicting the Professional Commitment Scale score according to the regression analysis, was 'job satisfaction'. Nurses with high job satisfaction had higher professional commitment levels than those with low job satisfaction (Table 3). Job satisfaction is defined as the opportunities a profession provides to achieve or facilitate one's work values (Li et al., 2019). Job satisfaction is an important factor in maintaining a sufficient nursing labour force and in providing high-quality health care. Previous studies have shown that job satisfaction has a negative relationship with intention to leave the job and a positive relationship with professional commitment. In other words, when nurses' job satisfaction decreases, their intention to leave the job increases, and their professional commitment decreases. Job satisfaction is affected by numerous factors, including gender, age, education status, working conditions, safe work environment and organisational obstruction (De Simone et al., 2018; Lu et al., 2007, 2012, 2019). Among these factors, a safe work environment is key to preventing violence at the workplace, which is a global issue affecting all health care professionals. The WHO defines workplace violence as any situation related to job or professional activities where a person is subjected to harassment, threats or assaults or where their safety and health are endangered (WHO, 2002). Exposure to violence negatively affects the job satisfaction of employees, increases their intentions to leave the job and decreases their professional commitment (Cheung et al., 2018; Li et al., 2019; Liu et al., 2019).

The sixth variable, in order of importance, determined to be statistically significant in predicting the Professional Commitment Scale score according to the regression analysis, was 'educational status'. When the nurses' education level increased, their professional commitment increased (Table 3). Education has an important role in professional commitment. Previous studies have shown that as the education level increases, belief in the aim and values of the profession and professional commitment are positively affected (Benligiray & Sönmez, 2011; Demirel et al., 2014; Mersin et al., 2020; Nogueras, 2006).

4.1 | Study limitations

As this study was carried out in three state hospitals located in different cities of Turkey, the study results may lack external validity. Moreover, this study used a cross-sectional design, which means the study results are limited to reflecting only those conditions experienced during the data collection process. The results of this study may have been affected by factors such as working environment, personnel insufficiency, the leadership style of the hospital management and number of patients in the three hospitals where the samples were selected. To minimize the effect of these factors, future
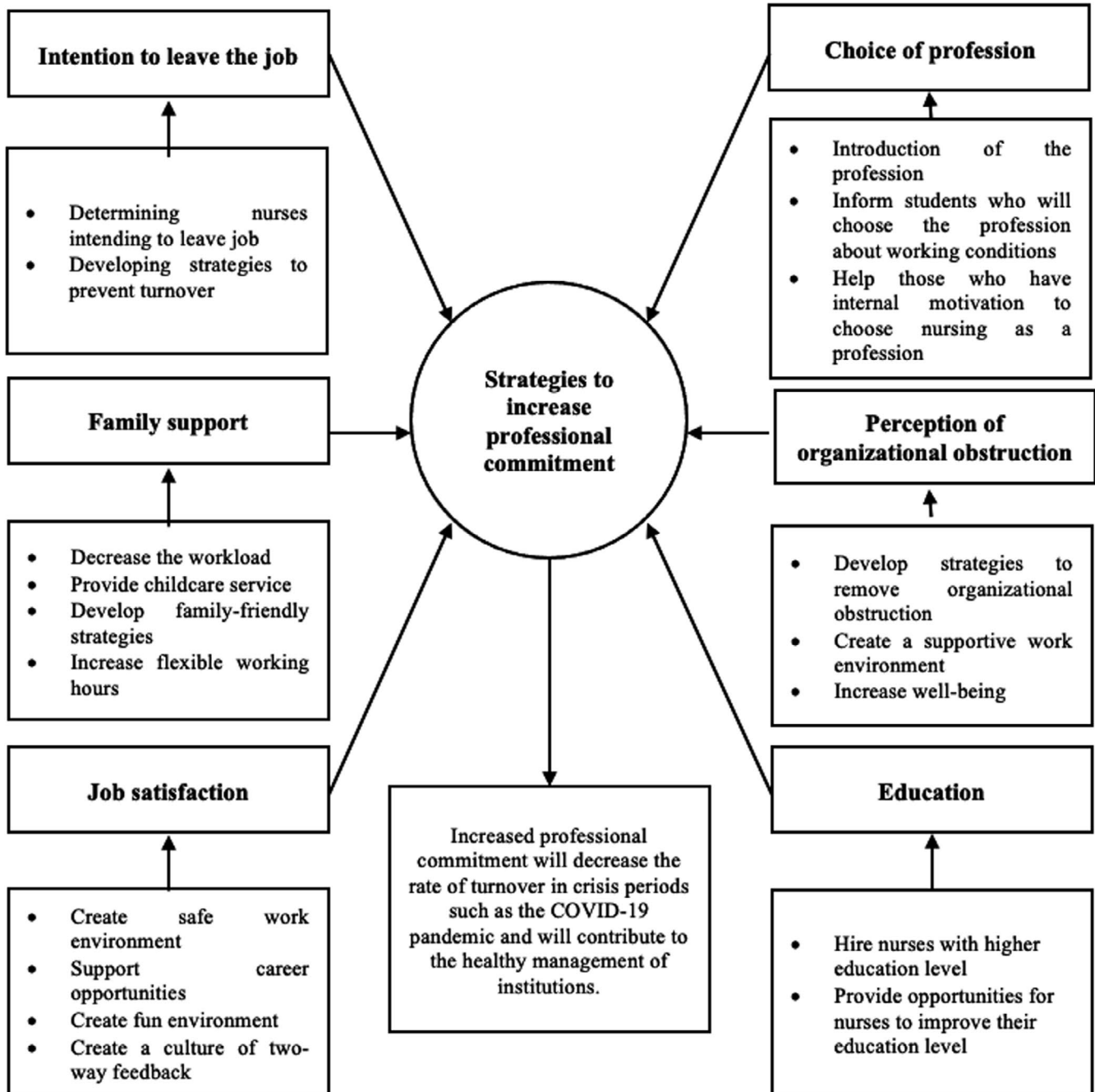
FIGURE 1 Road map for hospitals and nurse managers

studies should be carried out in various hospitals and broader sample groups.

4.2 | Implications for nursing management

In crises like the COVID-19 pandemic, it is crucial to maintain and increase nurses' professional commitment. Hospitals and nurse managers have important roles and responsibilities in this context. The study results provide a road map for hospitals and nurse managers to strengthen nurses' professional commitment (Figure 1). The following six items provide a summary of this road map:

1. Nurses who have the intention of leaving their profession had lower professional commitment. Therefore, it is necessary to identify the nurses who have the intention of leaving the profession, listen to their demands and find solutions to them.

2. Nurses who chose the profession willingly had higher professional commitment. Therefore, to increase the number of students who willingly choose to enrol in nursing schools, students should be introduced to nursing in high school, and those who show an interest in choosing nursing should be invited to hospitals to get an up-close look at the working conditions.

3. Nurses with strong family support had higher professional commitment. Therefore, an organisational culture that helps nurses

to balance work and family responsibilities should be developed. This culture should also include strategies that will positively contribute to establishing a healthy work–family balance, such as flexible working hours, increased number of staff, decreased workload, childcare services, family-friendly policies and recreational activities. In times of crises, like the COVID-19 pandemic, where the workloads and risks increase, there is heightened potential that nurses will experience work–family conflict. In these cases, the families of nurses can be informed by the administration of the institutions about the great effort and sacrifices for human health that nurses make as a way to encourage them. In these briefings, it can be emphasized that nurses especially need family support and understanding in these crisis periods.

4. Nurses with a high perception of organisational obstruction had lower professional commitment. Therefore, hospitals and nurse managers should support nurses' career development and develop strategies to increase their well-being in order to minimize organisational obstruction and provide a supportive work environment.

5. Nurses with higher job satisfaction had higher professional commitment. Therefore, hospitals and nurse managers should carry out numerous interventions to increase job satisfaction, including providing safe work environment, reducing workload, supporting career development opportunities, creating a fun working environment for employees, nurturing a culture of two-way feedback and preventing work–family conflict. In crisis periods like the COVID-19 pandemic, it is crucial that job satisfaction be increased to strengthen professional commitment and quality of care.

6. Nurses with a higher education level had higher professional commitment. Therefore, hospitals and nurse managers should hire nurses who have a higher education level to meet employment needs, provide them with opportunities and motivate those already employed in the institutions to increase their higher education levels (MSc, PhD).

5 | CONCLUSION

This study determined that the factors affecting nurses' professional commitment were intention to leave the job, choice of profession, family support, perception of organisational obstruction, job satisfaction and educational status, in respective order of importance. A road map based on the study results was developed for hospitals and nurse managers to maintain and increase nurses' professional commitment. This road map includes strategies that can be used to address the common problems experienced in crisis periods, such as the COVID-19 pandemic. The results of this study may help institutions and nurse managers to better understand the factors affecting professional commitment during the pandemic as a whole and to determine primary strategies based on their importance.

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest and the content has not been published or submitted for publication elsewhere.

AUTHORS' CONTRIBUTIONS

S.D., B.E and I.C. contributed to the conception and design of this study. S.D., S.O. and B.E. carried out the data collection process. I.C. and S.D. performed the statistical analysis and drafted the manuscript. S.A critically reviewed the manuscript and supervised the whole study process. All authors read and approved the final manuscript.

ETHICAL APPROVAL

Before starting the data collection process, ethical approval was obtained from the Scientific Research and Publication Ethics Committee of University. After receiving ethical approval, institutional permissions were obtained from the hospitals in which the study was conducted. Permissions to use the scales in the study were obtained from the respective scale developers via email. The participants were informed about the study, and those who voluntarily agreed to participate after being informed provided their written consents.

COMPLIANCE WITH ETHICAL STANDARDS

Before starting the data collection process, ethical approval was obtained from the University of Gümüşhane Scientific Research and Publication Ethics Committee **(ethical approval number: 95674917-108.99-E.7081, date: 18 February 2020)**. After receiving ethical approval, institutional permissions were obtained from the hospitals in which the study was conducted. Permissions to use the scales in the study were obtained from the respective scale developers (D. Koçak and A. Çetinkaya) via email. The participants were informed about the study and those who voluntarily agreed to participate after being informed provided their written consents.

ORCID

Secil Duran https://orcid.org/0000-0003-1135-0762

REFERENCES

Alkaya, S. A., Yaman, Ş., & Simones, J. (2018). Professional values and career choice of nursing students. *Nursing Ethics*, *25*(2), 243–252. https://doi.org/10.1177/0969733017707007

Arslan Yurumezoglu, H., & Kocaman, G. (2016). Predictors of nurses' intentions to leave the organization and the profession in Turkey. *Journal of Nursing Management*, *24*(2), 235–243. https://doi.org/10.1111/jonm.12305

Benligiray, S., & Sönmez, H. (2011). Relationships of nurses' professional commitment with other commitment forms: Organizational commitment, work commitment and family commitment. *The Nursing Journal of Hacettepe University Faculty of Health Sciences*, *18*(1), 28–40.

Çetinkaya, A., Özmen, D., & Temel, A. B. (2015). Validity and reliability study of the Nursing Professional Commitment Scale. *Dokuz Eylul University Faculty of Nursing Electronic Journal*, *8*(2), 54–60.

Chang, H. Y., Chu, T. L., Liao, Y. N., Chang, Y. T., & Teng, C. I. (2019). How do career barriers and supports impact nurse professional commitment and professional turnover intention? *Journal of Nursing Management*, *27*(2), 347–356. https://doi.org/10.1111/jonm.12674

Chang, H. Y., Shyu, Y. I. L., Wong, M. K., Friesner, D., Chu, T. L., & Teng, C. I. (2015). Which aspects of professional commitment can effectively retain nurses in the nursing profession? *Journal of Nursing Scholarship*, *47*(5), 468–476. https://doi.org/10.1111/jnu.12152

Cheung, T., Lee, P. H., & Yip, P. S. (2018). The association between workplace violence and physicians' and nurses' job satisfaction in Macau. *PLoS ONE*, *13*(12), e0207577. https://doi.org/10.1371/journal.pone.0207577

Chiang, Y. C., Lee, H. C., Chu, T. L., Han, C. Y., & Hsiao, Y. C. (2016). The impact of nurses' spiritual health on their attitudes toward spiritual care, professional commitment and caring. *Nursing Outlook*, *64*(3), 215–224. https://doi.org/10.1016/j.outlook.2015.11.012

de Pablo, G. S., Serrano, J. V., Catalan, A., Arango, C., Moreno, C., Ferre, F., Shin, J. I., Sullivan, S., Brondino, N., Solmi, M., & Fusar-Poli, P. (2020). Impact of coronavirus syndromes on physical and mental health of health care workers: Systematic review and meta-analysis. *Journal of Affective Disorders*, *275*, 48–57. https://doi.org/10.1016/j.jad.2020.06.022

De Simone, S., Planta, A., & Cicotto, G. (2018). The role of job satisfaction, work engagement, self-efficacy and agentic capacities on nurses' turnover intention and patient satisfaction. *Applied Nursing Research*, *39*, 130–140. https://doi.org/10.1016/j.apnr.2017.11.004

Demirel, Y., Öz, B. F., & Yıldırım, G. (2014). Evaluation of the commitment of nurses working in a university hospital to their institution. *Van Medical Journal*, *21*(2), 92–100.

Ehrlich, H., McKenney, M., & Elkbuli, A. (2020). Protecting our healthcare workers during the COVID-19 pandemic. *The American Journal of Emergency Medicine*, *38*(7), 1527–1528. https://doi.org/10.1016/j.ajem.2020.04.024

Galletta, M., Portoghese, I., Melis, P., Gonzalez, C. I. A., Finco, G., D'Aloja, E., Contu, P., & Campagna, M. (2019). The role of collective affective commitment in the relationship between work–family conflict and emotional exhaustion among nurses: A multilevel modeling approach. *BioMed Central Nursing*, *18*(1), 1–9. https://doi.org/10.1186/s12912-019-0329-z

Gauthier, P. (2011). Professional commitment. *Gastroenterology Nursing*, *34*(2), 88–90. https://doi.org/10.1097/SGA.0b013e318214034a

Gellatly, I. R., Cowden, T. L., & Cummings, G. G. (2014). Staff nurse commitment, work relationships, and turnover intentions: A latent profile analysis. *Nursing Research*, *63*(3), 170–181. https://doi.org/10.1097/NNR.0000000000000035

George, D., & Mallery, P. (2019). *IBM SPSS statistics 26 step by step: A simple guide and reference* (15th ed.). Routledge.

Gibney, R., Zagenczyk, T. J., & Masters, M. F. (2009). The negative aspects of social exchange: An introduction to perceived organizational obstruction. *Group and Organization Management*, *34*(6), 665–697. https://doi.org/10.1177/1059601109350987

Goldfarb, N., Grinstein-Cohen, O., Shamian, J., Schwartz, D., Zilber, R., Hazan-Hazoref, R., Goldberg, S., & Cohen, O. (2021). Nurses' perceptions of the role of health organisations in building professional commitment: Insights from an Israeli cross-sectional study during the COVID-19 pandemic. *Journal of Nursing Management*, 1–9. https://doi.org/10.1111/jonm.13248

Greenhaus, J. H., & Beutell, N. (1985). Sources of conflict between work and family roles. *Academy of Management Review*, *10*(1), 76–88. https://doi.org/10.5465/amr.1985.4277352

Haydari, S. M., Kocaman, G., & Tokat, M. A. (2016). Examining the nurses' organizational and professional commitments in different generations of employment and profession intentions. *Journal of Health and Nursing Management*, *3*(3), 119–131. https://doi.org/10.5222/SHYD.2016.119

Hoş, C., & Oksay, A. (2015). The relationship between organizational commitment and job satisfaction in nurses. *Suleyman Demirel University the Journal of Faculty of Economics and Administrative Sciences*, *20*(4), 1–24.

Huang, C., Wang, Y., Li, X., Ren, L., Zhao, J., Hu, Y. I., Zhang, L. I., Fan, G., Xu, J., Gu, X., Cheng, Z., Yu, T., Xia, J., Wei, Y., Wu, W., Xie, X., Yin, W., Li, H., Liu, M., … Cao, B. (2020). Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *The Lancet*, *395*(10223), 497–506. https://doi.org/10.1016/S0140-6736(20)30183-5

Juan, Y., Yuanyuan, C., Qiuxiang, Y., Cong, L., Xiaofeng, L., Yundong, Z., Jing, C., Peifeng, Q., Yan, L., Xiaojiao, X., & Yujie, L. (2020). Psychological distress surveillance and related impact analysis of hospital staff during the COVID-19 epidemic in Chongqing, China. *Comprehensive Psychiatry*, *103*(152198), 1–7. https://doi.org/10.1016/j.comppsych.2020.152198

Jun, J., Tucker, S., & Melnyk, B. M. (2020). Clinician mental health and well-being during global healthcare crises: Evidence learned from prior epidemics for covid-19 pandemic. *Worldviews on Evidence-Based Nursing*, *17*(3), 182–184. https://doi.org/10.1111/wvn.12439

Kalateh Sadati, A., Zarei, L., Shahabi, S., Heydari, S. T., Taheri, V., Jiriaei, R., Ebrahimzade, N., & Lankarani, K. B. (2021). Nursing experiences of COVID-19 outbreak in Iran: A qualitative study. *Nursing Open*, *8*(1), 72–79. https://doi.org/10.1002/nop2.604

Koçak, D. (2019). Turkish adaptation of the perceived organizational disability scale and its effect on the intention to stay. *Business and Management Studies: An International Journal*, *7*(1), 58–77. https://doi.org/10.15295/bmij.v7i1.1043

Labrague, L. J., & De los Santos, J. (2020). Fear of Covid-19, psychological distress, work satisfaction and turnover intention among frontline nurses. *Journal of Nursing Management*, 1–9. https://doi.org/10.1111/jonm.13168

Lai, J., Ma, S., Wang, Y., Cai, Z., Hu, J., Wei, N., Wu, H., Du, H., Chen, T., Li, R., Tan, H., Kang, L., Yao, L., Huang, M., Wang, H., Wang, G., Liu, Z., & Hu, S. (2020). Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. *JAMA Network Open*, *3*(3), e203976. https://doi.org/10.1001/jamanetworkopen.2020.3976

Li, N., Zhang, L., Xiao, G., Chen, J., & Lu, Q. (2019). The relationship between workplace violence, job satisfaction and turnover intention in emergency nurses. *International Emergency Nursing*, *45*, 50–55. https://doi.org/10.1016/j.ienj.2019.02.001

Liu, J., Zheng, J., Liu, K., Liu, X., Wu, Y., Wang, J., & You, L. (2019). Workplace violence against nurses, job satisfaction, burnout, and patient safety in Chinese hospitals. *Nursing Outlook*, *67*(5), 558–566. https://doi.org/10.1016/j.outlook.2019.04.006

Liu, W., Zhao, S., Shi, L., Zhang, Z., Liu, X., Li, L., Duan, X., Li, G., Lou, F., Jia, X., Fan, L., Sun, T., & Ni, X. (2018). Workplace violence, job satisfaction, burnout, perceived organizational support and their effects on turnover intention among Chinese nurses in tertiary hospitals: A cross-sectional study. *British Medical Journal Open*, *8*(6). https://doi.org/10.1136/bmjopen-2017-019525

Lu, H., Barriball, K. L., Zhang, X., & While, A. E. (2012). Job satisfaction among hospital nurses revisited: A systematic review. *International Journal of Nursing Studies*, *49*(8), 1017–1038. https://doi.org/10.1016/j.ijnurstu.2011.11.009

Lu, H., While, A. E., & Barriball, K. L. (2005). Job satisfaction among nurses: A literature review. *International Journal of Nursing Studies*, *42*(2), 211–227. https://doi.org/10.1016/j.ijnurstu.2004.09.003

Lu, H., While, A. E., & Barriball, K. L. (2007). A model of job satisfaction of nurses: A reflection of nurses' working lives in Mainland China. *Journal of Advanced Nursing*, *58*(5), 468–479. https://doi.org/10.1111/j.1365-2648.2007.04233.x

Lu, H., Zhao, Y., & While, A. (2019). Job satisfaction among hospital nurses: A literature review. *International Journal of Nursing Studies*, *94*, 21–31. https://doi.org/10.1016/j.ijnurstu.2019.01.011

Lu, K. Y., Chiou, S. L., & Chang, Y. Y. (2000). A study of the professional commitment changes from nursing students to registered nurses. *The Kaohsiung Journal of Medical Sciences*, *16*(1), 39–46.PMID: 10741015.

Mersin, S., İbrahimoğlu, Ö., Çağlar, M., & Akyol, E. (2020). Compassionate love, burnout and professional commitment in nurses. *Journal of Nursing Management*, *28*(1), 72–81. https://doi.org/10.1111/jonm.12892

Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology*, *78*(4), 538–551. https://doi.org/10.1037/0021-9010.78.4.538

Moazzami, B., Razavi-Khorasani, N., Moghadam, A. D., Farokhi, E., & Rezaei, N. (2020). COVID-19 and telemedicine: Immediate action required for maintaining healthcare providers well-being. *Journal of Clinical Virology*, *126*, 104345. https://doi.org/10.1016/j.jcv.2020.104345

Natan, M. B., & Becker, F. (2010). Israelis' perceived motivation for choosing a nursing career. *Nurse Education Today*, *30*(4), 308–313. https://doi.org/10.1016/j.nedt.2009.08.006

Nogueras, D. J. (2006). Occupational commitment, education, and experience as a predictor of intent to leave the nursing profession. *Nursing Economics*, *24*(2), 86.

Özdelikara, A., Ağaçdiken, S., & Aydın, E. (2016). Nursing students' choice of profession and influencing factors. *Acıbadem University Journal of Health Sciences*, *2*, 83–88.

Pappa, S., Ntella, V., Giannakas, T., Giannakoulis, V. G., Papoutsi, E., & Katsaounou, P. (2020). Prevalence of depression, anxiety, and insomnia among healthcare workers during the COVID-19 pandemic: A systematic review and meta-analysis. *Brain, Behavior, and Immunity*, *88*, 901–907. https://doi.org/10.1016/j.bbi.2020.05.026

Polit, D., & Beck, C. (2017). *Nursing research: Generating and assessing evidence for nursing practice* (10th ed.). Lippincott Williams & Wilkins.

Republic of Turkey Ministry. (2020). *Covid-19 Information Page*. Retrieved from https://covid19.saglik.gov.tr/?_Dil=2

Sabanciogullari, S., & Dogan, S. (2015). Relationship between job satisfaction, professional identity and intention to leave the profession among nurses in Turkey. *Journal of Nursing Management*, *23*(8), 1076–1085. https://doi.org/10.1111/jonm.12256

Şencan, H. (2005). *Reliability and validity in social and behavioral measures* (1st ed.). Seçkin Publishing Industry and Trade Inc.

Ten Hoeve, Y., Brouwer, J., & Kunnen, S. (2020). Turnover prevention: The direct and indirect association between organizational job stressors, negative emotions and professional commitment in novice nurses. *Journal of Advanced Nursing*, *76*(3), 836–845. https://doi.org/10.1111/jan.14281

VanVoorhis, C. W., & Morgan, B. L. (2007). Understanding power and rules of thumb for determining sample sizes. *Tutorials in Quantitative Methods for Psychology*, *3*(2), 43–50, https://doi.org/10.20982/tqmp.03.2.p043

Wang, M. L., & Tsai, L. J. (2014). Work-Family conflict and job performance in nurses: The moderating effects of social support. *Journal of Nursing Research*, *22*(3), 200–207. https://doi.org/10.1097/jnr.0000000000000040

World Health Organization. (2002). *New research shows workplace violence threatens health services [EB/OL]*. Retrieved from http://www.who.int/mediacentre/news/releases/release37/en/

World Health Organization. (2020). *WHO Director-General's opening remarks at the media briefing on COVID-19*. Retrieved from https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020

World Health Organization. (2020). *WHO coronavirus disease (COVID-19) dashboard*. Retrieved from https://covid19.who.int/

World Health Organization. (2020). *WHO and partners call for urgent investment in nurses*. Retrieved from https://www.who.int/news/item/07-04-2020-who-and-partners-call-for-urgent-investment-in-nurses