How do family supportive supervisors affect nurses' thriving: A research before and during COVID-19 pandemic

Safiye Şahin [a,*], Waliu Mulero Adegbite [b], Hanife Tiryaki Şen [c]

[a] *Istanbul Medeniyet University, Faculty of Health Sciences, Department of Healthcare Management, İstanbul, Turkey*
[b] *University of Johannesburg, Department of Industrial Psychology and People Management, South Africa*
[c] *Istanbul Health Directorate, Istanbul, Turkey*

ARTICLE INFO

ABSTRACT

Nurses need psychological resources (supervisor support), as well as formal support from their organizations, which help them combat the demands from work and home and be more thrive at work. Family supportive supervisor behaviors have been demonstrated above and beyond general levels of supervisor support in reducing work–family conflict and improving well-being. In line with this, first aim is to examine the effects of Covid-19 pandemic on nurses' perceived family supportive supervisor behaviors, work-to-family conflict, psychological well-being, and thriving. Second aim is to test the effects of nurses' perceived family supportive supervisor behaviors on their thriving through work-to-family conflict and psychological well-being. This study was designed as cross-sectional and analytical. A total of 511 nurses from Nigeria and Turkey participated in the study. Parametric tests and Structural Equation Analysis were employed to analyze the data. During Covid-19 pandemic, the scores of nurses' perceived family supportive supervisor behaviors and thriving decreased while the scores of their work-to-family conflict increased significantly. Results confirmed the negative effects of Covid-19 pandemic on nurses. Furthermore, results showed that family supportive supervisor behaviors had positive effect on thriving by decreasing work-to-family conflict and increasing psychological well-being. This study is one of the very first study examining the effects of family supportive supervisor behaviors on nurses' work-to-family conflict, psychological well-being and thriving. Results of this study indicate that nurses need family supportive supervisors to be more thrive at work. Therefore, formal family friendly policies and implications improving family supportive supervisor behaviors are recommended in organizations.

Introduction

Organizations are perceived as more supportive on families when they offer family friendly benefits, and employees are more likely to perceive a family friendly workplace as favorable, if family supportive supervisors are in place (Aryee, Walumbwa, Gachunga, & Hartnell, 2016). A family-supportive supervisor is the one who empathizes with an employee's desire to seek balance between work and family responsibilities (Hammer, Kossek, Bodner, & Crain, 2013) and exhibits family supportive behaviors.

Family supportive supervisor behaviors are conceptualized as behaviors exhibited by supervisors in support of family roles by providing emotional, instrumental, role modeling as well as creative work-family management supports (Hammer et al., 2013). As clarified by Hammer, Kossek, Yragui, Bodner, and Hanson (2009), the emotional support consists of listening and showing care for employees' work–family demands by the supervisors. When supervisors respond to an employee's work and family needs in the form of day-to-day activities, it is a form of instrumental support. The role-modeling behaviors of a supervisors is to synthesize work and family through modeling behaviors on the job while the creative work–family management support is when the supervisor initiate actions to restructure work to facilitate employee effectiveness on and off the job. Scholars in the family-work domain have argued that a supportive environment creates resources such as time, flexibility as well as psychological well-being (DePasquale, 2020; Peng, Xu, Matthews, & Ma, 2020). Previous literature has also confirmed that family supportive supervisor behavior is a distinct construct, which has a significant effect to reduce employees' work-to-

family conflict, compared to general supervisor support (Kossek, Pichler, & Hammer, 2011).

Work-to-family conflict occurs when work demands restrain individuals from fulfilling responsibilities and roles related to family (Netemeyer, Boles, & McMurrian, 1996). However, one of the primary risk groups for work-to-family conflict are nurses, there are surprisingly very limited studies on the effects of family supportive supervisor behaviors on work-to-family conflict in nursing sample. All over the world, lack of the number of nurses and over workload of nurses are acknowledged (e.g. Rosa et al., 2020; Sasso et al., 2019). Meanwhile, Covid-19 pandemic has led to an increase in the burden of nurses, in terms of increasing working hours, caring responsibilities at home and work (e.g. García-Martín et al., 2020; Maben & Bridges, 2020). As a result of this pandemic, the working conditions for nurses have got worse and nurses have been exposed to the negative effects of work-to-family conflict, which may have adverse effects on nurses' psychological well-being and positive job outcomes, as thriving.

In this study, psychological well-being emphasizes "important aspects of human functioning, ranging from positive relationships, to feelings of competence, to having meaning and purpose in life" (Diener et al., 2010). Work-to-family conflict and its negative effects on nurses' psychological well-being have been studied intensively before the Covid-19 pandemic (e.g., Neto et al., 2016; Yu, Song, Shi, & Wang, 2020; Zhang, Rasheed, & Luqman, 2019). Although, with Covid-19 outbreaks, nursing associations and health authorities have published many reports about negative effects of pandemic on nurses (American Medical Association -AMA, 2020; International Council of Nursing -ICN, 2020; United Nations International Children's Emergency Fund -UNICEF, 2020; World Health Organization, 2020a), it is urgently needed empirical evidence to prove these effects.

One of the negative effects of Covid-19 pandemic on nurses is decreasing the level of thriving at work. Thriving is described as the psychological state in which individuals experience both a sense of vitality and learning (Porath, Spreitzer, Gibson, & Garnett, 2012). Thus, it does not only have the potential to enhance a variety of crucial outcomes for individuals in terms of career development initiative and general health, but also can benefit the organization through increased performance and lower health care costs (Russo, Buonocore, Carmeli, & Guo, 2018). Regardless of Covid-19 pandemic, thriving has been a prominent variable for nurses' personal growth, job performance, and positive outcomes at work (e.g., Şahin, Arıcı-Ozcan, & Arslan-Babal, 2020; Walumbwa, Muchiri, Misati, Wu, & Meiliani, 2018). Despite its importance, thriving has been given little attention on nursing sample, as family supportive supervisor behaviors. Formal and informal implications reducing work-to-family conflict and increasing psychological well-being are inevitable to promote nurses' thriving (Fiksenbaum, 2014; Kaltenbrunner, Bengtsson, Mathiassen, Högberg, & Engström, 2019). This is because nurses need psychological resources (supervisor support, co-workers support, etc.), as well as formal support from their organizations, which help them combat the demands from work and home (Bakker & de Vries, 2021). In this point, family supportive supervisor behaviors are emerging as effective informal implications in health organizations.

In line with these views, first aim of this study was to examine the effects of Covid-19 pandemic on nurses' perceived family supportive supervisor behaviors, work-to-family conflict, psychological well-being, and thriving. Second aim was to test the research's model Fig. 1, demonstrating the effect of family supportive supervisor behaviors on thriving at work via work-to-family conflict and psychological well-being. It was expected to contribute to the relevant literature on
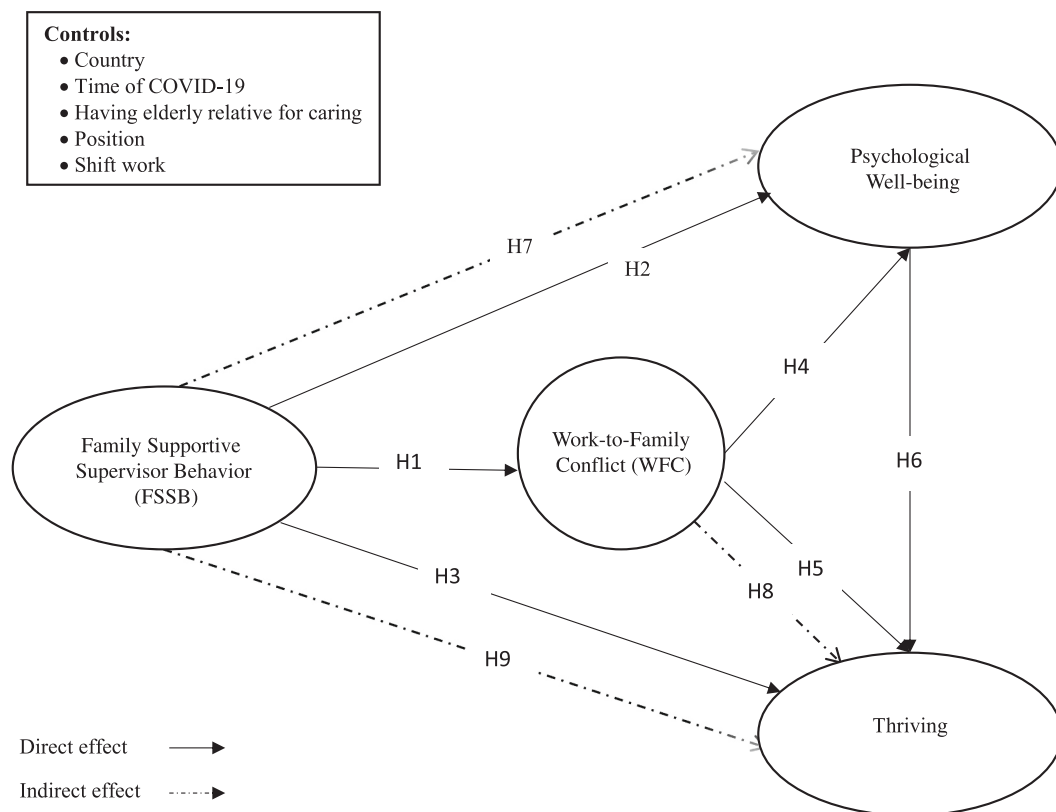
Fig. 1. Proposed Research's Model. Note: H1, H2 and H3 state that FSSB has a significant direct effect on WFC, psychological well-being, and thriving, respectively. H4 indicates that WFC has a significant direct effect on psychological well-being while H5 and H6 indicate that WFC and psychological well-being have significant direct effects on thriving. H7 states the indirect effect of FSSB on psychological well-being through WFC while H8 represents the indirect effect of WFC on thriving through psychological well-being. H9 states the indirect effect of FSSB on thriving through WFC and psychological well-being.

nursing management practices and human resources with this comprehensive study about family supportive supervisor behaviors and its effect on the organizational outcomes.

Methods

Study design, sample, and procedure

This study was designed as a cross-sectional and an analytical study. Nurses working at hospitals in Turkey and Nigeria constituted the population of the study. The sample consisted of nurses who voluntarily agreed to participate in online survey. Snowball sampling method was used to reach the sample. Nurses who answered the online questionnaire link were asked to share the online questionnaire with other nurses they knew. The sample consisted of 511 nurses working at hospitals in Turkey and Nigeria. The data were collected between November 2019 to June 2020. Ethical approval for this study was obtained on November 8th 2019.

To determine the ideal sample size, number of nurses in sample was aimed to be 10–20 times the total number of scales' items used in the study (Kline, 2015). The ideal sample size determined for a total of 33 scale items was 330–660. Therefore, it was concluded that the 511-sample size for this research was in the ideal sample size range.

Data collection tool

The data collection tool was prepared in two different languages, both Turkish and English (English for Nigeria). At the entry of the questionnaire form, participants were informed about the research and guaranteed that their data would be kept confidential. The scales of the research were as below:

Family supportive supervisor behavior

A new unidimensional family supportive supervisor behaviors scale, targeting nurses was adapted by examining the scales of Clark (2001), Hammer et al. (2009), and Thompson, Beauvais, and Lyness (1999). The scale developed by Thompson et al. (1999) has 11 items and consists of emotional and instrumental support for family from organization and supervisor. The scale of Clark (2001) has only 3 items which measure emotional supportive supervisor behaviors for family. Hammer et al. (2009) developed a 14-item scale of family supportive supervisor behaviors and they categorized family supportive supervisor behaviors based on four sub-dimensions, namely emotional support, role modeling, instrumental support, and creative work-family management. These three scales were validated and had internal consistency ($\alpha >$ 0.70) (Clark, 2001; Hammer et al., 2009; Thompson et al., 1999). We used 2 items from Clark (2001), 3 items from Hammer et al. (2009), and 7 items from Thompson et al. (1999). The new preliminary unidimensional family supportive supervisor behavior scale included items representing four sub-dimensions namely emotional support, role modeling, instrumental support, and creative work-family management.

For adapting the new family supportive supervisor behaviors scale into Turkish language, it was followed "The WHO Translation Protocol" (World Health Organization, 2020b). According to this protocol, the items of scale translated into Turkish by three English translators who were familiar with organizational behavior area. Then, researchers of this study and a lecturer from Turkish language and literacy department discussed and formed last version of the scale. The scale translated into Turkish sent another English translator to back translate into English. It was observed that there was little difference between the original scale and the scale obtained by the Turkish translation method. After this process, a pilot study was conducted with 55 nurses in Turkey and it was determined that all items in the scale were understandable. For Nigerian sample, this scale was used in English language. A pilot study was also conducted in Nigeria with 20 nurses and all participants reported that the items in scale were all understandable.

As a result of explanatory and confirmatory factor analyses, two items were deleted due to low factor loadings. Therefore, the new family supportive supervisor behavior scale consists of 10 items and a one-dimensional structure. Participants rated their response by choosing in a 5-point Likert-type options, as 1 for "Strongly disagree" to 5 for "Strongly agree". In the current study, 10-item unidimensional family supportive supervisor behavior scale had good internal consistency with $\alpha = 0.91$ in Turkish sample and $\alpha = 0.81$ in Nigerian sample.

Work-to-family conflict

The scale, developed by Netemeyer et al. (1996), was used to measure the work-to-family conflict. This 6-point Likert type scale includes 5 items. One of the sample items is "*The demands of my work interfere with my home and family life*". All the items are negative, and the high scores indicate that nurses experience work-to-family conflict in higher levels. The Cronbach's alpha of work-to-family conflict was reported as 0.88 (Netemeyer et al., 1996). Aycan and Eskin (2005) adapted this scale into Turkish. The Cronbach's alpha of this scale was reported as 0.90 in their study (Aycan & Eskin, 2005). In the current study, the Cronbach's was determined as $\alpha = 0.95$ for Turkish sample and $\alpha = 0.82$ for Nigerian sample.

Psychological well-being

The psychological well-being scale developed by Diener et al. (2010) was used. It was a 5-point Likert scale (1 = strongly disagree and 5 = strongly agree). This scale has 8 items with unidimensional structure. A sample item was "*I lead a purposeful and meaningful life*". Diener et al. (2010) reported that this scale had internal consistency with $\alpha = 0.87$. This scale was adapted into Turkish by Telef (2013) and Telef (2013) also reported the scale's Cronbach's alphas as $\alpha = 0.86$. In the current study, this scale had good internal consistency with $\alpha = 0.92$ in Turkish sample and $\alpha = 0.86$ in Nigerian sample.

Thriving

The scale, developed by Porath et al. (2012) and adapted into Turkish by Koçak (2016), was used to measure thriving at work. This scale has two sub-dimensions, namely vitality and learning. Each sub-dimension has 5 items in the original scale while each sub-dimension has 4 items in the adapted scale (Koçak, 2016). "I feel alive and vital" is one of the sample items for vitality, and "*I find myself learning often*" is one of the sample items for learning. Porath et al. (2012) reported that the scale's overall internal consistency was above 0.70. Koçak (2016) also reported that composite of reliability of the scale was above 0.70. In the current study, Cronbach's alpha was 0.91 in Turkish sample and $\alpha = 0.94$ in Nigerian sample.

Data analysis

First, to determine the appropriate method to be used in data analysis, the suitability of the data to normal distribution was examined. For this, kurtosis and skewness values of research variables were evaluated. The kurtosis and skewness values of the variables between $+2$ and -2 have been shown as one of the criteria for normal distribution in the current literature (e.g. Gissane, 2016). Kurtosis values were determined to be between -0.171 and 1.620, and skewness values were between 0.807 and 1.248. Based on this, it was assumed that the data were suitable for normal distribution. Afterwards, SPSS 23 program was used for descriptive statistics of the data and explanatory factor analysis (EFA). AMOS 22 program was used to test the confirmatory factor analyses (CFA) and proposed research model. To evaluate test results in Structural Equation Analysis, chi-square value/degree of freedom ($X^2/$ df), Standardized Root Mean Square Residual (SRMR), Tucker Lewis Index (TLI), Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA) fit indices were reported. SRMR and RMSEA values being below 0.08 and other fit indices above 0.90 indicate acceptable fit (Kline, 2015). In the indirect effect analysis, Bootstrapping

method was applied by selecting 5000 sample size and 95% confidence interval to test whether the indirect effect was significant (Preacher & Hayes, 2008).

Results

Socio-demographic characteristic of sample

Descriptive data of the sample were shown in Table 1. Nigerian nurses constituted 11.7% ($n = 60$) of the sample while Turkish nurses constituted 88.3% ($n = 451$). The average age of the sample was 34.42 + 8.48. When the educational status was examined, 37.8% of the 511 participants were bachelor graduates and 24.9% were college graduates. 84% of the participants were women, 62% were married and 53.6% had children. While 371 of the 511 participants (72.6%) reported that they did not have an elderly relative for whom they were responsible, 140 of them (27.4%) reported that they were. 34.1% of the participants had a managerial role, 50% worked in shifts and 59.7% also worked on weekends.

Validity and reliability of the family supportive supervisor behaviors and other scales

First, internal consistency of the scales was tested. Cronbach's alpha values for all scales were above 0.70 (see in Table 2 showed in brace-lets). Then, factor structure of family supportive supervisor behaviors scale was tested by EFA. As a result of EFA, it was determined that the data were suitable for factor analysis (KMO Measure of Sampling Adequacy: 0.932 and significance for Bartlett's Test of Sphericity: 0.0001).

Table 1
Socio-demographic features of sample.

Variables	($n = 511$)	
	Min.-Max.	M + SD
Age	18–60	34.42 + 8.48
	n	%
Country		
Turkey	451	88.3
Nigeria	60	11.7
Education		
High school	63	12.3
College	127	24.9
Bachelor degree	193	37.8
Master or Ph.D.	128	25.0
Gender		
Male	81	15.9
Female	430	84.1
Marital status		
Single	194	38.0
Married	317	62.0
Having kids		
No	237	46.4
Yes	274	53.6
Having an elderly relative for caring		
No	371	72.6
Yes	140	27.4
Managerial position		
Non-manager	337	65.9
Manager	174	34.1
Manner of work		
Shifts	258	50.5
Daytime	253	49.5
Working at the weekends		
No	206	40.3
Yes	305	59.7

Table 2
Mean, standard deviation, correlation coefficients, and cronbach alpha coefficients of variables (N = 511).

Variables	M	SS	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Time of COVID-19 (1 = During COVID-19)	0.72	0.45														
2. Country (1 = Turkey)	0.88	0.32	0.579**													
3. Age (Years)	34.57	8.16	0.054	-0.052												
4. Gender (1 = Female)	0.84	0.37	0.119**	0.008	0.219**											
5. Marital status (1 = Married)	0.62	0.49	-0.01	-0.198**	0.454**	0.113*										
6. Having kid (1 = Yes)	0.54	0.50	0.00	-0.217**	0.542**	0.101*	0.728**									
7. Having elderly relative for caring (1 = Yes)	0.27	0.45	-0.227**	-0.430**	0.124**	0.038	0.056	0.087*								
8. Position (1 = Managerial)	0.34	0.47	0.04	0.006	0.216**	0.063	0.103*	0.097*	0.040							
9. Shift work (1 = Yes)	0.50	0.50	0.06	-0.271**	-0.293**	-0.074	-0.129**	-0.139**	0.094*	-0.232**						
10. Working at the weekends (1 = Yes)	0.60	0.49	-0.07	-0.287**	-0.242**	-0.062	-0.076	-0.068	0.120**	-0.150**	0.742**					
11. FSSB	3.03	0.98	-0.166**	-0.148**	-0.027	-0.010	0.041	0.049	-0.017	0.082	-0.003	0.024	(0.945)			
12. WFC	2.96	1.25	0.096*	-0.032	-0.045	0.034	-0.008	-0.001	0.084	-0.128**	0.269**	0.275**	-0.362**	(0.94)		
13. Psychological well-being	3.85	0.81	-0.136**	-0.258**	0.073	0.099	0.069	0.088	0.103*	0.172**	0.007	-0.008	0.355**	-0.145**	(0.925)	
14. Thriving	3.82	1.12	-0.349**	-0.432**	-0.063	0.021	0.000	0.000	0.266**	0.121**	0.056	0.082	0.376**	-0.168**	0.495**	(0.948)

Coefficients alphas are along the diagonal in the parenthesis.
M: Mean, SD: Standard Deviation.
* $p < 0.05$.
** $p < 0.01$.

The factor loadings of the scale items were examined and only one item was excluded from the analysis because of low factor loading. When the EFA analysis was performed again, the scale of family supportive supervisor behaviors was unidimensional and explained 67% of the total variance.

All the research's scales (including family supportive supervisor behaviors) were tested with CFA. First, factor loadings of items were examined. An item in family supportive supervisor behaviors scale was found to be low factor loading. After deleting it, CFA was rerun. The final model consisting of 10-item family supportive supervisor behaviors, 5-item work-to-family conflict, 8-item psychological well-being, and 8-item thriving scale with two sub-dimensions (vitality and learning) fit the data well ($\chi2/\mathrm{df} = 2.675$, TLI = 0.949, CFI = 0.954, RMSEA = 0.057, SRMR = 0.054).

In summary, a unidimensional 10-item family supportive supervisor behaviors scale was confirmed with EFA and CFA. It was determined that this scale had high internal consistency ($\alpha = 0.945$) and has been validated.

Results of descriptive statistics and relationship among variables

Table 2 presented descriptive statistics, correlation coefficients, and Cronbach's alphas of variables. The average family supportive supervisor behaviors and work-to-family conflict perceived by the nurses participating in the study was moderate while the averages of thriving and psychological well-being were slightly above the average. The relationship among family supportive supervisor behaviors, work-to-family conflict, psychological well-being was found to be significant ($p < 0.01$). Family supportive supervisor behaviors were related to work-to-family conflict negatively ($r = -0.362, p < 0.01$), it was related to psychological well-being ($r = 0.376, p < 0.01$) and thriving ($r = 0.335, p < 0.01$) positively.

When the relationship between control variables and study scales were examined, family supportive supervisor behaviors was related to time of Covid-19 and country ($p < 0.01$). Work-to-family conflict was related to time of Covid-19, managerial position, shift work, and working at the weekends ($p < 0.01$). Psychological well-being and thriving were related to time of Covid-19, country, having elderly relative for caring, and managerial position ($p < 0.01$). According to these results, Nigerian nurses rated significantly higher scores on the scales of family supportive supervisor behaviors, psychological well-being, and thriving than Turkish nurses.

Comparison of variables according to "before Covid-19" and "during Covid-19" in Turkey

Table 3 showed the results about whether study variables differed significantly according to before Covid-19 and during Covid-19 pandemic. Nigerian data excluded in this analysis because the data could not be obtained during Covid-19 pandemic. Except psychological well-being, there were significant differences in scores of family

Table 3
Comparison of Variables according to "before COVID-19" and "during COVID-19" in Turkey.

Variables	Before COVID-19 ($n = 85$)		During COVID-19 ($n = 366$)		Test value (t)	p
	M	SD	M	SD		
FSSB	3.19	1.07	2.93	0.99	2.15	<0.01
WFC	2.56	1.20	3.04	1.30	−3.08	<0.01
Psychological Well-being	3.74	0.87	3.78	0.79	−0.37	>0.05
Thriving	3.95	1.20	3.58	0.98	2.63	<0.01

Abbreviations: FSSB: Family Supportive Supervisor Behavior, WFC: Work-to-Family Conflict, M: Mean, SD: Standard Deviation, p: significance of tests.

supportive supervisor behaviors, work-to-family conflict, and thriving according to time of Covid-19 pandemic ($p < 0.01$). While the scores of family supportive supervisor behaviors and thriving decreased, the scores of work-to-family conflict increased during Covid-19 pandemic.

Results of hypotheses test

Proposed research's model was tested by using AMOS 22. Tested model showed an acceptable fit to the data ($\chi2/\mathrm{df} = 2.586$, TLI = 0.938, CFI = 0.945, RMSEA = 0.056, SRMR = 0.054). When the effects of control variables on study scales were examined, work-to-family conflict was only predicted by shift work ($\beta = 0.253, p < 0.01$). Psychological well-being was predicted by country ($\beta = -0.263, p < 0.01$) and managerial position ($\beta = 0.149, p < 0.01$). Thriving was predicted by time of Covid-19 ($\beta = -0.143, p < 0,01$), country ($\beta = -0.237, p < 0.01$) and having elderly relative for caring ($\beta = 0.109, p < 0.01$).

In Fig. 2, only supported hypothesis of path analysis was demonstrated. The effects of control variables also were not shown in Fig. 2 due to avoiding complexity. As a result of path analyses, Hypothesis 3, Hypothesis 4, and Hypothesis 7 were not supported ($p > 0.05$). Fig. 2 demonstrated that Hypothesis 1, Hypothesis 2 and Hypothesis 3 were supported indicating that family supportive supervisor behaviors had a significant direct effect on work-to-family conflict negatively ($\beta = -0.37, p < 0.01$), psychological well-being positively ($\beta = 0.32, p < 0.01$), and thriving positively ($\beta = 0.345, p < 0.01$). Hypothesis 5 and 6 were also supported indicating that work-to-family conflict ($\beta = -0.11, p < 0.01$) and psychological well-being ($\beta = 0.40, p < 0.01$) had a significant direct effect on thriving. Finally, Hypothesis 9 was supported. As a result of bootstrapping analysis, family supportive supervisor behaviors had a significant indirect effect on thriving ($\beta = 0.171$, 95% CI = [0.108 and 0.243]). Total effect of family supportive supervisor behaviors on thriving was found to be $\beta = 0.345$ (95% CI = [0.248 and 0.439]).

Discussion

In this study, the effect of Covid-19 pandemic on nurses' perceived family supportive supervisor behaviors, work-to-family conflict, psychological well-being, and thriving and (2) the effect of nurses' perceived family supportive supervisor behaviors on thriving through work-to-family conflict and psychological well-being were examined.

First, nurses' perceived family supportive supervisor behaviors was found to be lower during Covid-19 pandemic than before this pandemic. In line with this finding, it was also found that nurses experienced higher work-to-family conflict during Covid-19 pandemic compared to before this pandemic. During Covid-19 pandemic, nurses have been on the front line to struggle with this pandemic (Mo et al., 2020; Sun et al., 2020). Not only demand for hospital care has increased with Covid-19 pandemic but also dramatic changes in social and economic life have occurred (Nicola et al., 2020). Like many other countries affected by the pandemic, schools and kindergartens were closed in Turkey, which caused arising in parental demands and childcare concerns (UNICEF, 2020). In this case, one of the spouses in families with a double career had to stay at home with children by using paid or unpaid leave options. To facilitate childcare in families with a dual career, policies specific to the pandemic period have been developed in Turkey. These policies aim to make it easier for employees to use paid or unpaid leave options due to their childcare responsibilities. Despite the existence of these formal family-friendly policies, the decrease in family supportive supervisor behaviors perceptions of nurses indicates that this policy cannot be applied effectively in the health sector. Permission requests for childcare may have not been approved by the managers, especially if both spouses were healthcare professionals. In this process, it can be inferred that supervisors are not able to exhibit adequate family supportive behaviors due to increased workload and reduced health personnel (sick leave because of positive Covid-19). Consequently, most of the nurses had to
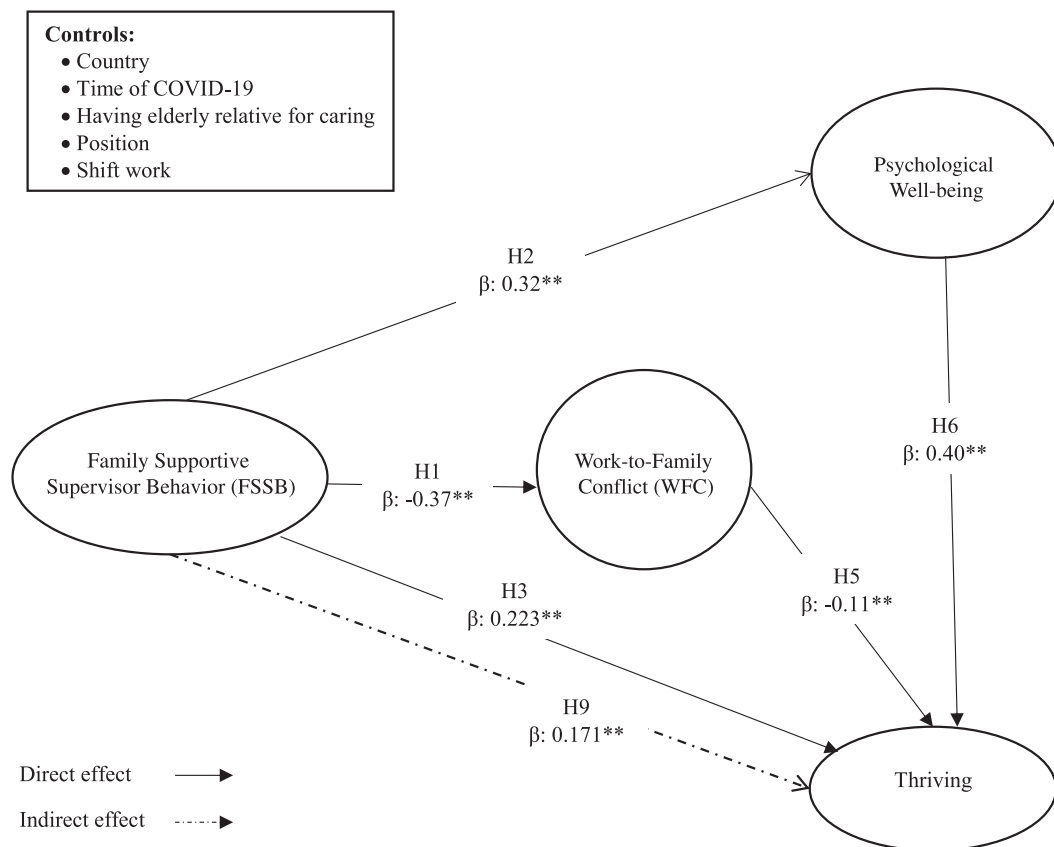
Fig. 2. Results of Hypotheses Tests. Note: Standardized β coefficients were reported. ** p < 0.01. Insignificant paths (*p* > 0.05) were not shown in this figure.

leave their children to their relatives residing elsewhere, and some of them had to stay in other accommodation due to the risk of contamination. Therefore, nurses have been facing work-to-family conflict during Covid-19 pandemic. Moreover, nurses could not get enough support from their managers to reduce work-to-family conflict according to the results of current study.

Another important finding of this study was about the effect of Covid-19 pandemic on nurses' psychological well-being and thriving. Our results supported the negative effect of Covid-19 pandemic on nurses' thriving while did not support on their psychological well-being. This is the very first study investigating the Covid19 pandemic's negative effects on nurses' thriving. However previous studies indicated that increasing working hours and working demands resulted in fatigue for nurses (e.g., Gander et al., 2020; James et al., 2020; Rodriguez Santana et al., 2020). Therefore, this finding is in line with previous studies. However, it was surprisingly found to be no significant difference between the scores of nurses' psychological well-being before and during Covid-19 pandemic. This result may occur due to the items in the scale of psychological well-being, one of them is '*I actively contribute to the happiness and well-being of others*' (see other items in Diener et al., 2010). During Covid-19 pandemic, nurses and other health staff have been seen as heroes (Freer, 2020). In Turkey and many other countries, health ministers started campaigns, including clapping healthcare staff everyday at 9 pm. Furthermore, nurses play a critical role in this pandemic, which may increase their self-respect and prevent to decrease in their psychological well-being.

When the results were evaluated based on Turkish and Nigerian samples, it was found that Nigerian nurses had significantly higher scores on the scales of family supportive supervisor behaviors, psychological well-being, and thriving. According to the World Bank statistics, nurses and midwives (per 1000 people) in Nigeria was reported at 1.2 in 2018 while it was 2.7 in Turkey in 2017 (World Bank, 2021). Although

the number of nurses per 1000 people in Nigeria is lower than in Turkey, the reason for the Nigerian nurses' high scores from the scales may be due to cultural differences. Both countries' cultures were compared based on Hofstede cultural dimensions (Hofstede Insights, 2021). Two countries' cultures have some similar features, as well as some differences. For example, based on Hofstede cultural dimensions, both countries are considered collectivistic societies and have high level of power distance. On the other hand, both countries' cultures differ in the dimension of indulgence, which means possessing a positive attitude and having a tendency towards optimism. While Nigerian culture is determined as high indulgence, Turkish culture is not be determined as indulgence. According to this dimension, Nigerian people are more optimistic than Turkish people. Therefore, it could be concluded that Nigerian nurses rated high scores on the scales of family supportive supervisor behaviors, psychological well-being, and thriving due to having high level of indulgence culture.

This study also revealed many other significant results regardless to Covid-19 pandemic. Conclusively, findings from this study uphold the predictions about the study's hypotheses. Specifically, the hypotheses about the relationship among work-to-family conflict, family supportive supervisor behaviors and thriving were supported (see in Fig. 2). There are strong references in the literature that nurses are related to prevalence of work-to-family conflict. For example, Ekici, Cerit, and Mert (2017) reported that nurses were susceptible to work-to-family conflict, and could not attend to activities related to their families. Therefore, this situation prevents nurses from fulfilling their family roles and responsibilities, thereby leading to negative emotions, low vitality, and lack of motivation to learn (thriving) at work. At this point, support provided by the supervisor through family supportive supervisor behaviors is critical and is significant in reducing work-to-family conflict and increasing thriving. According to Ajala (2017), the presence of managerial support decreased work-to-family conflict considerably and

increased employees' job satisfaction. Therefore, the current study's results are in line with previous studies.

Previous studies have equally shown that a positive work-family climate is critical for employees' well-being and performance (Odle-Dusseau, Britt, & Greene-Shortridge, 2012). Moreover, employee's experiences of work-to-family conflict have been demonstrated to be crucial in determining working adults' life quality, well-being, and psychosocial functioning (Karapinar, Camgoz, & Ekmekci, 2019). As documented in the workplace and organizational literature, the role of family supportive supervisor behaviors has been demonstrated above and beyond general levels of supervisor support in reducing work–family conflict and improving well-being (Hammer et al., 2009; Kossek et al., 2011). For instance, a study conducted by King et al. (2012) on work–family issues concluded that perceived supervisor support for family plays a major role in impacting health and well-being of workers. Nevertheless, in the current study, while work-to-family conflict was negatively and significantly related to psychological well-being, the effect of work-to-family conflict on psychological well-being was found to be non-significant indicated that H4 and H7 were not supported (see in Figs. 1 and 2). These results may occur, because nurses experienced more work-to-family conflict during Covid-19 pandemic while their psychological well-being was not affected due to the acknowledgment of their pivotal position for struggling this pandemic.

This study reveals the importance of formal and informal family-friendly implications for nurses by showing the effects of family supportive supervisor behaviors on nurses' important outcomes, such as work-to-family conflict, psychological well-being and thriving. As this study is one of the very first study examining the effects of family supportive supervisor behaviors on nurses' thriving, it is provided empirical evidence with thriving on nurses with this study. However, the future researchers are recommended to investigate the effects of family supportive supervisor behaviors on nurses' job performance, turnover intentions, other important job outcomes through thriving.

With its theoretical contributions, this study also offers many implications for nurse and human resources managers. Nurses have pivotal role in maintaining high quality of patient care. Therefore, managers should care nurses' thriving. Because, nurses with high level of thriving feel themselves vital and engaged in learning activities, which is necessary for maintaining excellent patient care. This study indicates that family supportive supervisors help their subordinates experience less work-to-family conflict and have higher level of thriving. Thus, supervisors should be trained to exhibit higher level of family supportive behaviors. Previous studies reveal that training programs are effective in the learning of family supportive behaviors by supervisors (Hammer, Kossek, Anger, Bodner, & Zimmerman, 2011). For instance, Hammer et al. (2011) developed a family supportive supervisor behavior training program consisting of three components: computer-based training, face-to-face training, and behavioral self-monitoring. They showed that this training program had significant effect on enhancing supervisors' family supportive skills and reducing subordinates' work-to-family conflict. Therefore, psychiatric nurses are recommended to develop and validate the family supportive supervisor behavior training programs targeting nurses. Also, human resources managers are recommended to implement family supportive supervisor behavior training programs in their organizations to promote nurses' thriving.

Besides its strengths, this study has also some limitations. First, cross-sectional design of this study did not allow us to claim strong causality. Since, it is recommended to future researchers to conduct longitudinal study design allowing for stronger causality (Podsakoff, MacKenzie, & Podsakoff, 2012). Although the data reflected a range of nursing profession, there were differences in the variation of the data. For example, Nigerian data were smaller than Turkish data. In similar, before Covid-19 pandemic data were smaller than during Covid-19 pandemic data. Therefore, the variation of data limits the generalizability of the current results. Because of Covid-19 pandemic, more data could not be collected in Nigeria. In line with this, researchers are encouraged to examine the effects of family supportive supervisor behaviors on nurses' job outcomes in other cultures and countries. Finally, there are many other variables affecting family supportive supervisor behaviors, work-to-family conflict, psychological well-being, and thriving, such as burnout, emotional labor, control over schedule, job resources, job demands, etc. However, all these variables could not be included to research's model. This is also a limitation of the current study.

Conclusion

The results of this study indicate that nurses' perceived family supportive supervisor behaviors and thriving decrease with COVID-19 pandemic while their perceived work-to-family conflict increase. In addition, family supportive supervisor behaviors have positive effects on thriving by decreasing nurses' work-to-family conflict and increasing nurses' psychological well-being.

Implications for psychiatric nursing practice

The results suggest that the family supportive supervisors have positive effects on nurses, such as reducing their work-to-family conflict, increasing their psychological well-being, and thriving, which are not present in the current literature regarding nurses. This is because nursing is a specific profession with its nature and working conditions (shift work, on-site work, related to individuals' lives and death, etc.), they need specific family-friendly policies to balance their work-family lives and keep themselves healthy. Along with formal family-friendly policies, psychiatric nurses are recommended to improve family-supportive work environment by encouraging supervisors to show family supportive behaviors which enable using formal family-friendly implications offered by their workplaces. To do this, psychiatric nurses should develop and validate training programs and interventions which target to improve supportive supervisor behaviors.

CRediT authorship contribution statement

Study design: SŞ, WMA.
Data collection: HTŞ, SŞ, WMA.
Data analysis: SŞ.
Study supervision: SŞ, WMA.
Manuscript writing: SŞ, WMA, HTŞ.
Critical revisions for important intellectual content: SŞ, WMA, HTŞ.

Compliance with ethical standards

Ethical approval for this study was obtained to Ethical Committee of Medeniyet University (Date: 08 November 2019).

Declaration of competing interest

There is no conflict of interest.

Acknowledgment

References

Ajala, E. M. (2017). Work-family-conflict and family-work-conflict as correlates of job performance among working mothers: Implications for industrial social workers. *African Journal of Social Work, 7*(1), 52–62.

American Medical Association. (2020). Managing mental health during Covid-19. Retrieved from https://www.ama-assn.org/delivering-care/public-health/managing-mental-health-during-covid-19.

Aryee, S., Walumbwa, F. O., Gachunga, H., & Hartnell, C. A. (2016). Workplace family resources and service performance: The mediating role of work engagement. *Africa Journal of Management, 2*(2), 138–165. https://doi.org/10.1080/23322373.2016.1175265.

Aycan, Z., & Eskin, M. (2005). Relative contributions of childcare, spousal support, and organizational support in reducing work-family conflict for men and women: The case of Turkey. *Sex Roles: A Journal of Research, 53*(7–8), 453–471. https://doi.org/10.1007/s11199-005-7134-8.

Bakker, A. B., & de Vries, J. D. (2021). Job demands–resources theory and self-regulation: New explanations and remedies for job burnout. *Anxiety, Stress, & Coping, 34*(1), 1–21.

Clark, C. S. (2001). Work cultures and work/family balance. *Journal of Vocational Behavior, 58*, 348–365. https://doi.org/10.1006/jvbe.2000.1759.

DePasquale, N. (2020). Family-supportive supervisor behaviour positively affects work behaviour and nonwork well-being among men in long-term care. *Journal of Nursing Management, 28*(7), 1504–1514. https://doi.org/10.1111/jonm.13091.

Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D. W., Oishi, S., & Biswas-Diener, R. (2010). New well-being measures: Short scales to assess flourishing and positive and negative feelings. *Social Indicators Research, 97*(2), 143–156. https://doi.org/10.1007/s11205-009-9493-y.

Ekici, D., Cerit, K., & Mert, T. (2017). Factors that influence nurses' work-family conflict, job satisfaction, and intention to leave in a private hospital in Turkey. *Hospital Practices and Research, 2*(4), 102–108. https://doi.org/10.15171/hpr.2017.25.

Fiksenbaum, L. M. (2014). Supportive work–family environments: Implications for work–family conflict and well-being. *The International Journal of Human Resource Management, 25*(5), 653–672. https://doi.org/10.1080/09585192.2013.796314.

Freer, J. (2020). Selfless sacrifice or failed by the state? Remembering nurses who have died from Covid-19. *International Journal of Nursing Studies*, 103736. https://doi.org/10.1016/j.ijnurstu.2020.103736.

Gander, P., O'Keeffe, K., Santos-Fernandez, E., Huntington, A., Walker, L., & Willis, J. (2020). Development and evaluation of a matrix for assessing fatigue-related risk, derived from a national survey of nurses' work patterns. *International Journal of Nursing Studies*, 103573. https://doi.org/10.1016/j.ijnurstu.2020.103573.

García-Martín, M., Roman, P., Rodriguez-Arrastia, M., Diaz-Cortes, M. M., Soriano-Martin, P. J., & Ropero-Padilla, C. (2020). Novice nurse's transitioning to emergency nurse during Covid-19 pandemic: A qualitative study. *Journal of Nursing Management*, 1–10. https://doi.org/10.1111/jonm.13148.

Gissane, C. (2016). Is the data normally distributed? *Physiotherapy Practice and Research, 37*(1), 57–60. https://doi.org/10.3233/PPR-150069.

Hammer, L. B., Kossek, E. E., Anger, W. K., Bodner, T., & Zimmerman, K. L. (2011). Clarifying work-family intervention processes: The roles of work-family conflict and family-supportive supervisor behaviors. *Journal of Applied Psychology, 96*(1), 134–150. https://doi.org/10.1037/a0020927.

Hammer, L. B., Kossek, E. E., Bodner, T., & Crain, T. (2013). Measurement development and validation of the Family Supportive Supervisor Behavior Short-Form (family supportive supervisor behaviors-SF). *Journal of Occupational Health Psychology, 18*(3), 285–296. https://doi.org/10.1037/a0032612.

Hammer, L. B., Kossek, E. E., Yragui, N. L., Bodner, T. E., & Hanson, G. C. (2009). Development and validation of a multidimensional measure of family supportive supervisor behaviors (family supportive supervisor behaviors). *Journal of Management, 35*(4), 837–856. https://doi.org/10.1177/0149206308328510.

Hofstede Insights. (2021). Country comparison. Retrieved from https://www.hofstede-insights.com/country-comparison/nigeria,turkey/, 28 June, 2021.

International Council of Nurses. (2020). ICN Covid-19 update: 17 April 2020. Retrieved from https://www.icn.ch/news/icn-covid-19-update-17-april-2020.

James, J., James, S. M., Wilson, M., Brown, N., Dotson, E. J., Dan Edwards, C., & Butterfield, P. (2020). Sleep health and predicted cognitive effectiveness of nurses working 12-hour shifts: An observational study. *International Journal of Nursing Studies*, 103667. https://doi.org/10.1016/j.ijnurstu.2020.103667.

Kaltenbrunner, M., Bengtsson, L., Mathiassen, S. E., Högberg, H., & Engström, M. (2019). Staff perception of Lean, care-giving, thriving and exhaustion: A longitudinal study in primary care. *BMC Health Services Research, 19*(1), 1–10. https://doi.org/10.1186/s12913-019-4502-6.

Karapinar, P. B., Camgoz, S. M., & Ekmekci, O. T. (2019). Employee wellbeing, workaholism, work–family conflict and instrumental spousal support: A moderated mediation model. *Journal of Happiness Studies, 21*(4), 1–21. https://doi.org/10.1007/s10902-019-00191-x.

King, R. B., Karuntzos, G., Casper, L. M., Moen, P., Davis, K. D., Berkman, L., … Kossek, E. E. (2012). Work-family balance issues and work-leave policies. In R. J. Gatchel, & I. Z. Schultz (Eds.), *Handbook of occupational health and wellness* (pp. 323–339). Springer Science + Business Media. https://doi.org/10.1007/978-1-4614-4839-6_15.

Kline, R. B. (2015). *Principles and practice of structural equation modeling.* Guilford publications.

Koçak, Ö. E. (2016). How to enable thriving at work through organizational trust? *International Journal of Research in Business and Social Science, 5*(4), 40–52. https://doi.org/10.20525/ijrbs.v5i4.580.

Kossek, E. E., Pichler, S., & Hammer, L. B. (2011). Workplace social support and work – family conflict: A meta-analysis clarifying the influence of general and work – family-specific supervisor and organizational support. *Personal Psychology, 64*(2), 1–15. https://doi.org/10.1111/j.1744-6570.2011.01211.x.WORKPLACE.

Maben, J., & Bridges, J. (2020). Covid-19: Supporting nurses' psychological and mental health. *Journal of Clinical Nursing, 29*(15–16), 2742–2750. https://doi.org/10.1111/jocn.15307.

Mo, Y., Deng, L., Zhang, L., Lang, Q., Liao, C., Wang, N., Qin, M., & Huang, H. (2020). Work stress among Chinese nurses to support Wuhan in fighting against Covid-19

epidemic. *Journal of Nursing Management, 28*(5), 1002–1009. https://doi.org/10.1111/jonm.13014.

Netemeyer, R. G., Boles, J. S., & McMurrian, R. (1996). Development and validation of work–family conflict and family–work conflict scales. *Journal of Applied Psychology, 81*(4), 400–410. https://doi.org/10.1037/0021-9010.81.4.400.

Neto, M., Carvalho, V., Chambel, M., Manuel, S., Pereira-Miguel, J., & Reis, M. (2016). Work-family conflict and employee well-being over time: The loss spiral effect. *Journal of Occupational and Environmental Medicine, 58*, 429–435. https://doi.org/10.1097/JOM.00000 00000 000707.

Nicola, M., Alsafi, Z., Sohrabi, C., Kerwan, A., Al-Jabir, A., Iosifidis, C., Agha, M., & Agha, R. (2020). The socio-economic implications of the coronavirus and Covid-19 pandemic: A review. *International Journal of Surgery, 78*, 185–193. https://doi.org/10.1016/j.ijsu.2020.04.018.

Odle-Dusseau, H. N., Britt, T. W., & Greene-Shortridge, T. M. (2012). Organizational work–family resources as predictors of job performance and attitudes: The process of work–family conflict and enrichment. *Journal of Occupational Health Psychology, 17*(1), 28–40. https://doi.org/10.1037/a0026428.

Peng, Y., Xu, X., Matthews, R., & Ma, J. (2020). One size fits all? Contextualizing family-supportive supervision to help employees with eldercare responsibilities. *Journal of Occupational Health Psychology, 25*(5), 368–383. https://doi.org/10.1037/ocp0000237.

Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology, 63*, 539–569. https://doi.org/10.1146/annurev-psych-120710-100452.

Porath, C., Spreitzer, G., Gibson, C., & Garnett, F. G. (2012). Thriving at work: Toward its measurement, construct validation, and theoretical refinement. *Journal of Organizational Behavior, 33*(2), 250–275. https://doi.org/10.1002/job.756.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research ethods, 40*(3), 879–891. https://doi.org/10.3758/brm.40.3.879.

Rodriguez Santana, I., Anaya Montes, M., Chalkley, M., Jacobs, R., Kowalski, T., & Suter, J. (2020). The impact of extending nurse working hours on staff sickness absence: Evidence from a large mental health hospital in England. *International Journal of Nursing Studies*. https://doi.org/10.1016/j.ijnurstu.2020.103611.

Rosa, W. E., Binagwaho, A., Catton, H., Davis, S., Farmer, P. E., Iro, E., … Aiken, L. H. (2020). Rapid investment in nursing to strengthen the global Covid-19 response. *International Journal of Nursing Studies*, 2018–2020. https://doi.org/10.1016/j.ijnurstu.2020.103668.

Russo, M., Buonocore, F., Carmeli, A., & Guo, L. (2018). When family supportive supervisors meet employees' need for caring: Implications for work–family enrichment and thriving. *Journal of Management, 44*(4), 1678–1702. https://doi.org/10.1177/0149206315618013.

Şahin, S., Arıcı-Ozcan, N., & Arslan-Babal, R. (2020). The mediating role of thriving: Mindfulness and contextual performance among Turkish nurses. *Journal of nursing management, 28*(1), 175–184. https://doi.org/10.1111/jonm.12911.

Sasso, L., Bagnasco, A., Catania, G., Zanini, M., Aleo, G., & Watson, R. (2019). Push and pull factors of nurses' intention to leave. *Journal of Nursing Management, 27*(5), 946–954. https://doi.org/10.1111/jonm.12745.

Sun, N., Wei, L., Shi, S., Jiao, D., Song, R., Ma, L., Wang, H., Wang, C., You, Y., Liu, S., & Wang, H. (2020). A qualitative study on the psychological experience of caregivers of Covid-19 patients. *American Journal of Infection Control, 48*(6), 592–598. https://doi.org/10.1016/j.ajic.2020.03.018.

Telef, B. B. (2013). The adaptation of psychological well-being into Turkish: A validity and reliability study. *Hacettepe University Journal of Education, 28*(3), 374–384 [Original work published in Turkish].

Thompson, C., Beauvais, L. L., & Lyness, K. S. (1999). When work–family benefits are not enough: The influence of work–family culture on benefit utilization, organizational attachment, and work–family conflict. *Journal of Vocational Behavior, 54*, 392–415. https://doi.org/10.1006/jvbe.1998.1681.

United Nations International Children's Emergency Fund. (2020). Family-friendly policies and other good workplace practices in the context of Covid-19: Key steps employers can take. Retrieved from https://www.unicef.org/media/66351/file/Family-friendly-policies-covid-19-guidance-2020.pdf.

Walumbwa, F. O., Muchiri, M. K., Misati, E., Wu, C., & Meiliani, M. (2018). Inspired to perform: A multilevel investigation of antecedents and consequences of thriving at work. *Journal of Organizational Behavior, 39*(3), 249–261. https://doi.org/10.1002/job.2216.

World Bank. (2021). Nurses and midwives (per 1,000 people) – Nigeria, Turkey. Retrieved from https://data.worldbank.org/indicator/SH.MED.NUMW.P3?locations=NG-TR, 28 June, 2021.

World Health Organization. (2020a). Mental health and psychosocial considerations during Covid-19 outbreak. Retrieved from https://www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf.

World Health Organization. (2020b). Process of translation and adaptation of instruments. Retrieved from https://www.who.int/substance_abuse/research_tools/translation/en/.

Yu, J., Song, H., Shi, H., & Wang, K. (2020). Association between work–family conflict and overall well-being among Chinese nurse leaders. *Journal of Nursing Management*, (February), 1–6. https://doi.org/10.1111/jonm.13084.

Zhang, Y., Rasheed, M. I., & Luqman, A. (2019). Work–family conflict and turnover intentions among Chinese nurses: The combined role of job and life satisfaction and perceived supervisor support. *Personnel Review, 49*(5), 1140–1156. https://doi.org/10.1108/PR-01-2019-0017.