Work-Family Conflict and Depression among Physicians Who Are Parents in Jeddah, KSA

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ABSTRACT

Background: The two most significant components of an adult's life are family and work. These two elements influence one another in both directions, with family life influencing one's career and vice versa.

Aim: To examine the correlation between work- family conflict (WFC) and depression among physicians working in Jeddah, Saudi Arabia, who are parents of young children (children younger than 12 years old).

Method: This was a cross-sectional online survey study that was conducted in Jeddah, Saudi Arabia between January and October 2022. Study population consisted of practicing physicians working in Jeddah, Saudi Arabia who are parents of young children. We utilized two previously validated tools to assess WFC levels, as well as depression prevalence among our selected population. We then tested the correlation between the two components and different demographic variables. The tools we used were Work-Family Conflict Scale (WAFCS) and The World Health Organization Five-Item Well-Being Index (WHO-5). Correlation between continuous variables were obtained by Spearman's Rho test. Structural equation modeling (SEM) methods implemented using AMOS 26.0 (Arbuckle) were used to test the research model.

Results: This study included 204 physicians in Saudi Arabia who are parents of young children. More than two-thirds of them were female (73.1%). Physicians with young children had high WFC and FWC scores (mean, standard error: 26.2, 0.5). The correlation between WAFCS score and number of years of marriage was negative (r = -0.141, P 0.05). Almost 56% of physicians with young children were depressed. The WHO-5 score was adversely correlated with both WFC and FWC (r = -0.529, P 0.001 and r = -0.281, P 0.001, respectively). Similarly, the WFC and FWC scores of depressed physicians were significantly higher than those of non-depressed physicians. Only the number of years of marriage was substantially connected with a low depression score, as it was significantly higher among non-depressed physicians than among depressed physicians.

Conclusion: Work-family conflict negatively impacts the well-being of Saudi Arabian physicians who are parents. Despite the importance of family in assisting parents in dealing with various forms of stress and depression, the family itself was a source of additional responsibilities and obligations that added to the load on working physicians. Improved scheduling for physicians who are parents is essential to reduce work-family conflicts and maintain the quality of their healthcare delivery.

Keywords: Conflict; Family; Physician; Saudi Arabia; Work

INTRODUCTION

Family and work are regarded as the two most significant aspects of an adult's life. These two factors have a bidirectional effect on one another, with family life influencing one's career and vice versa. In the event of a dispute between these two positions, one or both will be affected. The consequences of which are felt by people, families, and organizations [1]. Despite widespread concern for the mental health of workers, psychological distress reaches disturbing levels in the vast majority of developed nations [2]. Due to their work load, healthcare workers, particularly physicians, are more susceptible to anxiety and depression, and the risk increases during pandemics like as the COVID-19 pandemic, which began affecting the world in December 2019 [3-5]. Physicians are particularly susceptible to work-family conflict (WFC) due to the physically and emotionally demanding nature of their work. Not only is this group's well-being important on a personal level, but it is also essential for effective patient care [6].

Depression is one of the most prevalent mental health disorders. It manifests with depressed mood, lack of interest and pleasure, low energy, poor concentration, feelings of guilt, low self-esteem, and sleep or eating disorders [7]. On the other hand, well-being is a collection of positive psychological traits that are directly connected with depression and have been claimed to be a protective factor against it. It is distinguished by positive affect, a sense of purpose, and life satisfaction [8]. A global meta-analysis on physician depression indicates a prevalence of 27% among medical students, 29% among registrars, and as high as 60% among practicing physicians [9]. Not only is depression more common in this population than in the general public, but there is also a significant problem with physicians admitting and diagnosing depression. This could be due to a number of circumstances, such as maintaining the image of a "perfect" physician, fear of judgment and stigma, and job loss fear [10].

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As with any parents, physician-parents encounter personal and professional problems [11]. Previous research has demonstrated that there is a gender difference in parental WFC. Previous study has demonstrated that being married and having children is advantageous for males and their jobs, but not for women physicians [12,13]. Due to the strain imposed on their coworkers, women report feeling terrible about taking maternity leave. Professional women continue to be responsible for the majority of household and childcare responsibilities, which can impede professional advancement and are not recognized by other physicians as valuable labor [12,14,15]. Work-family conflict is a real issue among physicians in the country of Saudi Arabia. Nonetheless, there is little data that addresses it. In addition, depression is a common illness among physicians, and its consequences can be devastating. This study aims to examine the correlation between WFC and depression among Saudi Arabian physicians who are parents.

Materials and Methods

Study Design and sampling strategy

This was a cross-sectional online survey study that was conducted in Jeddah, Saudi Arabia between January and October 2022. The convenience sample method was utilized to invite eligible practicing physicians via social media channels (E-mail and WhatsApp).

Study Population

This study's study population consisted of practicing physicians who are parents of young children (children younger than 12 years old). Anyone who is neither a parent nor a licensed physician was excluded from this study. This research was open to physicians employed by the Ministry of Health or any private health care facility.

Sample size

According to Ministry of Health statistical yearbook, there are around 7000 physicians working in the city of Jeddah. Determining who of these physicians is also a parent of young children was difficult to obtain [16].

Data collection tool

In this study, we utilized two previously validated tools to WFC and participants well-being, which are Work-Family Conflict Scale (WAFCS) and The World Health Organization Five-Item Well-Being Index (WHO-5) [17,18]. The questionnaire tool was divided into 3 sections: demographic data, the WAFCS, and the WHO-5 scale. Both scales are validated and available in both Arabic and English languages. The WAFCS is a self-report instrument designed for use with young children's parents. It is a simple, validated 10-items scale with two subscales of five items each: WFC and family-work conflict (FWC). Each item is assigned a 7-point scale, with 1 indicating very strong disagreement and 7 indicating very strong agreement. Higher scores indicate a greater degree of conflict, with a maximum attainable score of 35 for each [17]. The WHO-5 is one of the most widely used depression screening instruments. It has been utilized successfully in both clinical treatment and research. Additionally, it has been translated into approximately thirty languages. It has a sensitivity of 93% and a negative predictive value of 98% for detecting depression, making it a recommended depression screening tool [19,20]. The assertions are scored on a 6-point Likert scale, with 0 representing "never" and 5 representing "always." The greatest possible score is 25, which indicates the best condition of well-being or quality of life, and the lowest is 0, which indicates the worst [18].

Validation and piloting phase

Clinicians from King Abdulaziz University looked over the questionnaire tool and made sure it was accurate. They were asked if the questions were clear and easy to understand, if they made sense at first glance, and if any of the questions were hard to understand. They were also asked if any of the questions hurt their feelings or made them feel bad. They said it was easy to understand and fill out the questionnaire. Also, before the questionnaire was used on a larger scale, a small group of people took part in a pilot study to see how well they understood it. A pilot study was conducted on 10% (38 physicians) of our targeted sample size. The feasibility and duration of survey completion were assessed. The results showed that it is easy to understand.

Statistical analysis

Data was analyzed using SPSS program version 26.0. Continuous data was reported as mean and SE. Categorical variables were reported as frequency and percentages (%). Differences between categorical data was analyzed by Chi-square test. Differences in continuous data was analyzed by Mann-Whitney or Kruskal-Wallis tests as appropriate as the data were not normally distributed. Normality of the data was checked using histogram. Correlation between continuous variables were obtained by Spearman's Rho test. Structural equation modeling (SEM) methods implemented using AMOS 26.0 (Arbuckle) were used to test the research model. Confirmatory factor analysis was performed with maximum likelihood estimation to examine the goodness of the model. A < 0.05 value (two-sided test) was accepted as statistically significant.

RESULTS

Demographic characteristics of the participants

For a total of 204 physicians in Saudi Arabia who are parents of young children, complete data were collected (under 12 years old). More than two-thirds (73.1%) of them were females. Almost one-third of the participants in the study (37.4%) were family medicine specialists. Approximately 45.0% of the participants were consultants. The average number of years of experience across study participants was 9 (6,2) years. The overwhelming majority of them (93.6%) are married and work in the government sector (83.7%). The average marriage lasted 10.3 (5.4) years. Nearly 82.0% of participants said that their spouse is working. Nearly one-third of them (34.2%) reported having two children, with fifty percent of them having children younger than three years old. Table 1 lists the demographic characteristics of the study participants.

Table 1. Demographic characteristics of studied participants

Descriptive variables		
Gender (n, %)		
Male	55	27.1%
Female	148	72.9%
Specialty (n, %)		
Family medicine	76	37.4%
Internal medicine	17	8.4%
Surgery	14	6.9%
Emergency medicine	13	6.4%
General practice	11	5.4%
Obstetrics and Gynecology	11	5.4%
Pediatrics	10	4.9%
Radiologist	10	4.9%
Anesthesia	5	2.5%
Dermatology	5	2.5%

Preventive medicine	5	2.5%
Psychiatry	4	2.0%
Dentist	2	1.0%
Neurology	2	1.0%
Ophthalmology	2	1.0%
Orthopedics	2	1.0%
Pathology	2	1.0%
Plastic surgery	2	1.0%
Audio vestibular medicine	1	0.5%
ENT	1	0.5%
Hematopathologist	1	0.5%
neurology	1	0.5%
Neurosurgeon	1	0.5%
Oncology	1	0.5%
Palliative	1	0.5%
Pulmonology	1	0.5%
Radiation oncology	1	0.5%
Rehabilitating medicine	1	0.5%
Professional classification (n, %)		
Consultant	92	45.3%
Specialist	63	31.0%
Resident	34	16.7%
General physician	14	6.9%
Medical intern	0	0.0%
Years of experience (mean, SD)	9	6.2
Sector of current practice (n, %)		
Governmental	170	83.7%
Both governmental and private	18	8.9%
Private practice	15	7.4%
Marital status (n, %)		
Married	190	93.6%
Separated / divorced	13	6.4%
Years of marriage (mean, SD)	10.3	5.4
Does your spouse work? (n, %)		
No	37	18.2%
Yes	166	81.8%
How many children do you have? (n, %)		
1	55	27.6%
2	68	34.2%
3	37	18.6%
4	32	16.1%
5 or more	7	3.5%
Do you have children ≤3 years old? (n, %)		
No	101	49.8%
Yes	102	50.2%

Work family conflict among physicians who are parents of young children

Physicians who are parents of young children had a high WFC score (mean, SE: 26.2, 0.5; **Figure 1**) and FWC score (mean, SE: 17.1, 0.5; **Figure 1**). There was no statistically significant difference in WAFCS scores between male and female physicians. WAFCS scores also were not significantly correlated with the specialty, professional classification, years of experience nor sector of practice (**Table 2**). In addition, WAFCS scores were not significantly correlated with the marital status or spouse working status, however, it was negatively correlated with the number of years of marriage ($r = -0.141$, $P < 0.05$, Spearman's correlation; **Table 2**). Both number of children or having a child under 3 years of age were not significantly correlated with WAFCS scores (**Table 2**).

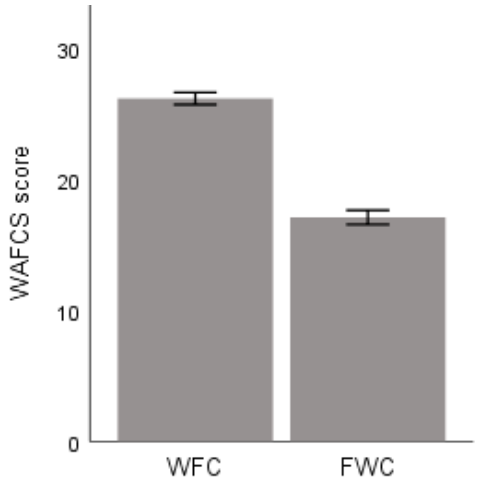

Figure 1. Mean WFC and FWC WSFCS scores in physicians who are parents of young children

Table 2. Association between medical proficiency, marital status, number and age of children and WFC and FWC WAFCS score

	n	**WFC**	**FWC**
Gender mean (SD)			
Male	55	25.6 (6.4)	16.4 (7.9)
Female	148	26.4 (6.7)	17.3 (7.8)
P-value		0.326	0.469
Specialty mean (SD)			
Anesthesia	5	30.8 (5)	13.2 (3.9)
Audio vestibular medicine	1	30 (.)	18 (.)
Dentist	2	24 (15.6)	9 (2.8)
Dermatology	5	24 (9.4)	14 (6.2)
Emergency medicine	13	26.9 (6.8)	15.8 (6.2)
ENT	1	34 (.)	28 (.)
Family medicine	76	26.1 (6.6)	18.8 (8)
General practice	11	25.3 (7.3)	17.7 (6.4)
Hematopathologist	1	28 (.)	5 (.)
Internal medicine	17	28.8 (6.2)	17.1 (10)
Neurology	3	26.3 (6.5)	14.3 (6)
Neurosurgeon	1	29 (.)	5 (.)
Obstetrics and Gynecology	11	29.5 (4.8)	17.9 (8.5)
Oncology	1	32 (.)	10 (.)
Ophthalmology	2	23 (5.7)	16.5 (12)
Orthopedics	2	26.5 (0.7)	17.5 (12)
Palliative	1	24 (.)	17 (.)
Pathology	2	26.5 (3.5)	16 (2.8)
Pediatrics	10	25 (6.3)	11.3 (5)
Plastic surgery	2	22.5 (12)	22 (5.7)
Preventive medicine	5	21.2 (7.2)	19.2 (9.1)
Psychiatry	4	17.8 (5.6)	23.3 (5.9)
Pulmonology	1	25 (.)	20 (.)
Radiation oncology	1	15 (.)	6 (.)
Radiologist	10	26.3 (6.4)	14.7 (6.6)
Rehabilitating medicine	1	31 (.)	21 (.)

Surgery	14	25.2 (5.7)	16.2 (7.8)
P-value		0.545	0.24
Professional classification mean (SD)			
Consultant	92	26.3 (7.1)	16.3 (7.9)
General physician	14	27.1 (7.2)	18.9 (7.1)
Medical intern	0		
Resident	34	25.1 (6.5)	18.5 (7.5)
Specialist	63	26.5 (5.8)	17 (7.8)
P-value		0.615	0.361
Years of experience (spearman's correlation)	202	0.065	0.05
P-value		0.357	0.483
Sector of current practice mean (SD)			
Both settings	18	24.7 (7.2)	14.5 (7.6)
Governmental	170	26.2 (6.5)	17.2 (7.8)
Private practice	15	28.1 (6.6)	18.3 (8.1)
P-value		0.342	0.307
Marital status mean (SD)			
Separated / divorced	13	24.4 (7.3)	17.1 (6.8)
Married	190	26.3 (6.5)	17.1 (7.8)
P-value		0.353	0.891
Years of marriage (Spearman's correlation)	203	-0.141	-0.128
P-value		**0.045**	0.069
Does your spouse work? mean (SD)			
No	37	26 (6.7)	17.3 (8.3)
Yes	166	26.2 (6.6)	17 (7.7)
P-value		0.84	0.952
How many children do you have? mean (SD)			
1	55	26.2 (6.5)	17.2 (7.7)
2	68	26.9 (6.4)	17.8 (7.6)
3	37	26.9 (6.9)	18 (8.5)
4	32	24.5 (6.5)	14.9 (7.8)
5 or more	7	25.1 (7.7)	15.9 (4)
P-value		0.36	0.459
Do you have children <3 years old? mean (SD)			
No	101	25.8 (6.8)	16.9 (8.1)
Yes	102	26.6 (6.4)	17.2 (7.5)
P-value		0.439	0.833
Bold indicated significant correlation with WAFCS			

3.3. Depression prevalence among physicians who are parents of young children

Depression was prevalent among 56% of physicians who are parents of young children (**Figure 2**). Both WFC and FWC were negatively correlated with WHO-5 score (r = -0.529, P <0.001 and r = -0.281, P <0.001 respectively, Spearman's correlation; **Figure 3**). Similarly, both WFC and FWC scores were significantly higher in depressed physicians compared with non-depressed (**Figure 4**). Among all studied characteristics, only the numbers of years of marriage was significantly correlated with low depression as it was significantly higher in non-depressed physicians compared with depressed physicians (**Table 3**).

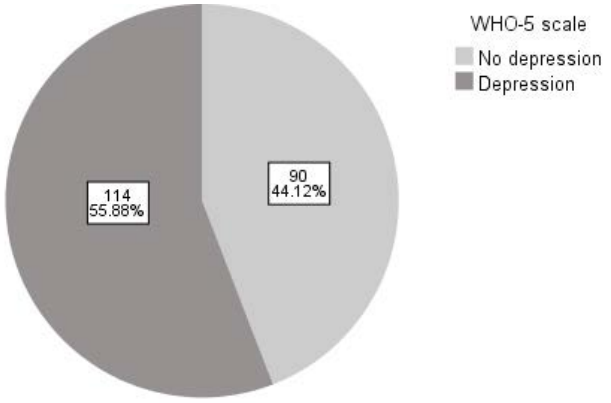

Figure 2. Prevalence of depression among physicians who are parents of young children

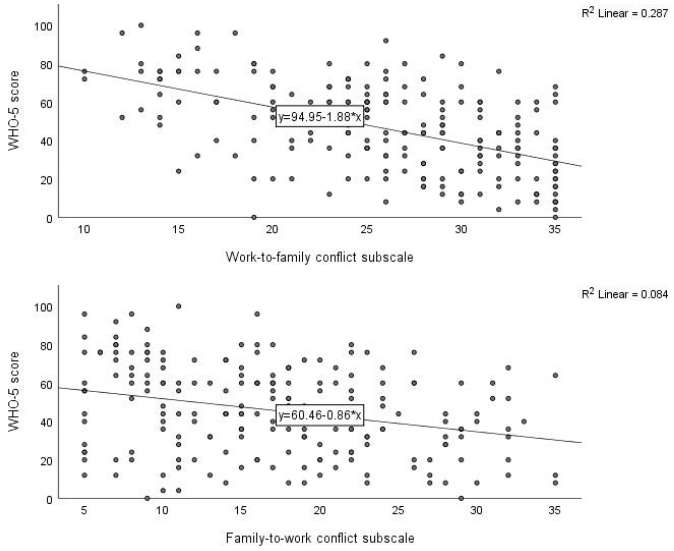

Figure 3. Correlation between WFC and FWC scores and WHO-5 score.

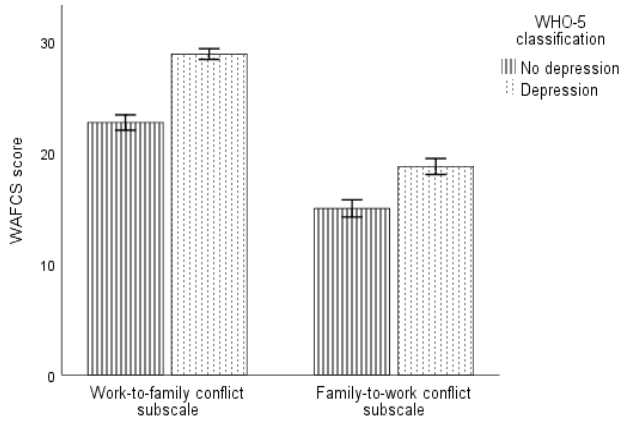

Figure 4. WFC and FWC WAFCS scores in depressed and non-depressed physicians who are parents of young children

Table 3. Depression score stratified by demographic characteristics

	No depression (WHO-5 ≥ 50) n =90		**Depression (WHO-5 < 50)** n =114		P-value
Gender					
Male	29	52.7%	26	47.3%	0.132
Female	61	40.9%	88	59.1%	
Professional classification					
Consultant	42	45.7%	50	54.3%	0.673
General physician	4	28.6%	10	71.4%	
Medical intern	0	0.0%	1	100.0%	
Resident	15	44.1%	19	55.9%	
Specialist	29	46.0%	34	54.0%	
Years of experience	9.5	0.8	8.6	0.5	0.739
Sector of current practice					
Both settings	10	55.6%	8	44.4%	0.567
Governmental	73	42.7%	98	57.3%	
Private practice	7	46.7%	8	53.3%	
Marital status					
Separated / divorced	4	30.8%	9	69.2%	0.316
Married	86	45.0%	105	55.0%	
Years of marriage	11.7	0.6	9.1	0.4	**<0.001**
Does your spouse work?					
No	18	48.6%	19	51.4%	0.54
Yes	72	43.1%	95	56.9%	
How many children do you have?					
1	23	41.8%	32	58.2%	0.24
2	28	40.6%	41	59.4%	
3	16	43.2%	21	56.8%	
4	15	46.9%	17	53.1%	
5 or more	6	85.7%	1	14.3%	
Do you have children <3 years old					
No	45	44.6%	56	55.4%	0.901
Yes	45	43.7%	58	56.3%	
Bold indicated significant difference					

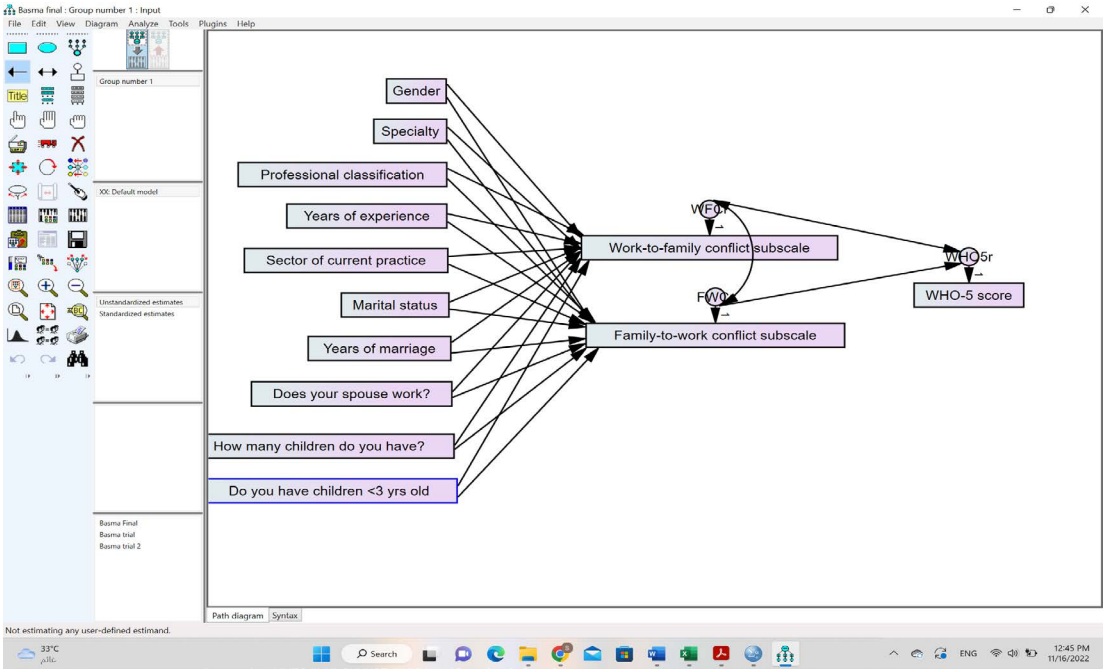

Figure 5. Hypothesized model

Table 4. Regression weight for the SEM analysis

Predictive variables		Outcome	**Estimate**	**S.E.**	**C.R.**	**P**
Gender	--->	WFC	1.233	0.989	1.246	0.213
Professional classification	--->	WFC	-0.302	0.244	-1.238	0.216
Years of experience	--->	WFC	0.114	0.071	1.598	0.110
Sector of current practice	--->	WFC	1.949	1.092	1.785	0.074
Marital status	--->	WFC	3.124	1.797	1.739	0.082
Years of marriage	--->	WFC	-0.536	0.081	-6.599	**<0.001**
Does your spouse work?	--->	WFC	-0.922	1.139	-.809	0.418
How many children do you have?	--->	WFC	0.865	0.388	2.231	**0.026**
ChildrenUnder3	--->	WFC	-1.023	0.878	-1.166	0.244
Gender	--->	FWC	1.316	1.182	1.114	0.265
Professional classification	--->	FWC	0.055	0.291	0.190	0.850
Sector of current practice	--->	FWC	2.262	1.305	1.733	0.083
Marital status	--->	FWC	1.637	2.147	0.762	0.446
Years of marriage	--->	FWC	-0.546	0.097	-5.622	**<0.001**
How many children do you have?	--->	FWC	0.618	0.464	1.332	0.183
Does your spouse work?	--->	FWC	-1.092	1.361	-0.802	0.423
Do you have children under 3?	--->	FWC	-1.319	1.049	-1.257	0.209
WFC	--->	WHO-5 Index	-1.767	0.194	-9.105	**<0.001**
FWC	--->	WHO-5 Index	-0.222	0.167	-1.330	0.184

Structural equation modelling for the study variables

The following model includes the hypothesis of the study that medical proficiency, marital status, number and age of children may contribute to work family conflict which in turn influence depression (**Figure 5**). The results of SEM analysis of the proposed model (**Figure 5**) showed that years of marriage was a predictor of WFC as it was significantly associated with decreased WFC score ($P < 0.001$; **Table 4**). This was similar for FWC ($P < 0.001$; **Table 4**). The number of children was significantly associated with increased WFC score but not FWC score ($P = 0.026$; **Table 4**). WFC was a predictor of depression as it was significantly associated with decreased WHO-5 score ($P < 0.001$; **Table 4).**

DISCUSSION

Role conflict is defined as the psychological stress caused by competing role demands. Work-family conflict is considered as a dual-directional, multifaceted phenomenon (strain-based, time-based, and behaviour based). Based on the scarcity concept, time-based conflict is the most prevalent type. According to this idea, the individual's resources (e.g., time and energy) are limited, and numerous responsibilities eventually lower the resources available to meet the demands of all roles, hence causing stress and WFC [21,22]. This study aimed to examine the correlation between WFC and depression among Saudi Arabian physicians who are parents. The key findings of this study are 1) the WHO-5 score was adversely correlated with both WFC and FWC. Similarly, the WFC and FWC scores of depressed physicians were significantly higher than those of non-depressed physicians. Only the number of years of marriage was substantially connected with a low depression score, as it was significantly higher among non-depressed physicians than among depressed physicians, 2) years of marriage and was a predictor of WFC as it was significantly associated with decreased WFC score, 3) the number of children was significantly associated with increased WFC score but not FWC score, and 4) WFC was a predictor of depression as it was significantly associated with decreased WHO-5 score.

In our study, the WHO-5 score was adversely correlated with both WFC and FWC ($r = -0.529$, P 0.001 and $r = -0.281$, P 0.001, respectively). Similarly, the WFC and FWC scores of depressed physicians were significantly higher than those of non-depressed physicians. Previous studies reported that depression is prevalent among physicians and is linked to suboptimal patient care, medical errors, and job loss [23-25]. A previous study in Turkey examined the prevalence of WFC and its association with demographic characteristics, job performance, and family satisfaction among 396 physicians and found that the WFC score was greater than the FWC score [6]. Age has a negative correlation with WFCS scores. The WFCS scores of assistant physicians were higher. There was no significant correlation between WFC and gender, marital status, place of employment, length of employment, or monthly income. And there were no significant associations identified between WFC and job performance or family functionality [6]. Another study in Germany by Fuß et al. reported that WFC decreased as age increased; as there are higher employment and family pressures in younger ages, and as age increases, both these stressors diminish and coping methods are established, it was believed that conflict decreased [26]. A previous study conducted in Saudi Arabia studied the effects of night shifts on the psychosocial, physical, and sleeping patterns of healthcare providers [27]. This study showed that family life was negatively impacted more among night shift workers than day shift workers. In addition, night shift was inversely connected with job satisfaction and social life. In addition, almost 71% of night shift workers reported poor sleep quality, compared to 50% of day shift workers [27]. Night shift work can induce physical and social problems, such as psychophysiological disorders (depression and anxiety), cardiovascular problems, and a lack of contact between family members [28,29].

The majority of our study participants were female physicians. Depression among physicians may affect females at higher rates [30,31]. In addition, factors that explain gender variations in depression have not been found. A factor that may affect female and male physicians differentially is work-family conflict, in which family duties are negatively impacted by professional obligations. Despite the growing number of women in the medical field, female physicians are substantially more likely than their male colleagues to be responsible for household and childcare responsibilities [32]. Due to the unequal distribution of domestic labor, female physicians are more likely to report professional difficulties due to family obligations [33]. The competing, frequently incompatible pressures connected with these job and family obligations might result in work-family conflict.

In our study, we found that WFC was a predictor of depression as it was significantly associated with decreased WHO-5 score. Prior research indicates that both depression and WFC might negatively affect the careers of physicians. Depressed physicians are more likely to abandon the medical field, cut their work hours, and switch specialties [34]. Work-family conflict among physicians is substantially correlated with low job satisfaction and increased burnout, which negatively effects patient care and increases physician attrition [35,36]. In our study, only the number of years of marriage was substantially connected with a low depression score, as it was significantly higher among non-depressed physicians than among depressed physicians. In addition, years of marriage was a predictor of WFC as it was significantly associated with decreased WFC score. This was confirming the findings of a previous multinational study in the United states, United Kingdom, and Australia, which reported that unmarried physicians reported higher levels of depression than married physicians [37]. Having a partner and forming a family is an important and essential source of support for all workers and especially healthcare providers including physicians. Previous literature have reported that psychological symptoms and some psychological disorders were inversely linked with perceived family support [38].

CONCLUSION

Work-family conflict has a significant negative effect on the well-being of Saudi Arabian physicians who are parents. Despite the importance of family in providing parents with assistance against many forms of stress and depression, the family itself was a source of additional responsibilities and obligations that raised the burden on working physicians. Better scheduling for the work of physicians who are parents is required to reduce work-family conflicts and preserve the quality of their healthcare provision.

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Competing Interest: None

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