

Impact of maternity leave and breastfeeding policies on physician fathers in Turkey: a descriptive research study

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Summary. This study aimed to evaluate the maternity leave from the physician fathers' perspective and examine the factors affecting their support for their colleagues. This descriptive research study was conducted among a social media group. A 20-item data-collecting tool was used, consisting of four parts: a socio-demographic data section, questions about the respondent's job, questions pertaining to his wife's breastfeeding, and questions regarding his opinions and attitude toward his female physician colleagues. Out of the total, 45.5% of participants stated that they faced difficulties while their female physician colleagues were on breastfeeding leave. In addition, 60.3% of respondents declared to be always supportive of their colleagues with regard to their use of breastfeeding leave. Furthermore, we noted an increase in the number of night shifts (negative) and a supportive attitude toward the spouse (positive), and that the status of their spouses using their breastfeeding leaves (positive) affected the male physician's supportive attitude toward their female physician colleagues. Physician fathers wanted to support their colleagues in using their breastfeeding leave; however, they faced an increased amount of workload. Although the importance of maternity leave for mothers is pretty obvious, the health of the remaining workers should not be ignored.

Keywords. Physician mothers, physician fathers, breastfeeding, breastfeeding leave, employee health.

Background

Family-friendly policies are important for children to get a better start in life and for parents to achieve a balance between professional and private life.¹ Maternity and breastfeeding leaves occupy a very special place among these policies. Breastfeeding has many beneficial health outcomes for both the mother and the child.² Most health organizations recommend exclusive breastfeeding for the first six months, and then continuing breastfeeding for at least one year. In Turkey, the law guarantees maternity and breastfeeding leaves. According to the laws in force, the duration of paid (full wage) maternity leave is eight weeks before and eight weeks after delivery, amounting to a total of 16 weeks. After the end of the paid maternity leave period, three hours a day for the first six months

and one and a half hours a day for the second six months are guaranteed to the mother in the form of breastfeeding leave. Moreover, an unpaid leave of up to 24 months after delivery is also provided, upon request by the employee. Night shift is not allowed from the 24th week of pregnancy up to 2 years after birth. All these benefits are granted to the mother. There is no deduction in the mother's salary. Fathers whose wives have given birth are allowed a 10-day paid (full wage) paternity leave. These leaves are mandatory, not optional.³ Paid maternity leave is generally 18 weeks in OECD (Organisation for Economic Co-operation and Development) countries and 22 weeks in European Union countries. Among these countries, Estonia offers the longest period of paid maternity leave (85 weeks). In United States, mothers do not get paid maternity leaves at all.¹ Although in many countries, including Turkey, there are supportive policies concerning breastfeeding for working mothers, studies have shown that in practice they experience several problems.^{4,5} The biggest ones they encounter in the workplace are not being able to find an appropriate place and enough time to express milk, and not getting enough support from their colleagues and superiors.^{4,6-8}

In particular, healthcare professionals providing services to society should prioritize their own health needs in order to provide a higher-quality health service to others. Thus, it is important to maintain a balance between professional and private life. Since a female physician tries to increase the frequency of breastfeeding in other women who have just given birth, the fact that she is unable to feed enough milk to her own child, due to work-related reasons, is quite ironic. In a study on the breastfeeding behavior of physician mothers, it was found that the main reasons for not practicing breastfeeding were work-related. When the content of the study is examined, 44% of the doctor mothers cannot fully use their breastfeeding leave, 57% do not have a suitable space to express milk at work, 66% do not have time to express milk, and only 58% have sufficient support for breastfeeding from their colleagues.⁴ Some studies pointed out that getting adequate support from colleagues or supervisors positively affects the breastfeeding duration.^{9,10} Just like in any other professions, the most natural right for a mother who is also a physician is to

breastfeed her baby. However, recent studies highlighted that the health sector is bearing an intense amount of workload, and that doctors are facing an increased frequency of burnout syndrome.¹¹⁻¹³ While their colleagues are on leave, several other arrangements should be made for the remaining employees. According to the literature review, there is no study evaluating this topic from this perspective. It is obvious how important it is for new mothers to use their maternity leaves, but the health of the remaining workers should not be ignored.

This being said, the aim of this study was to evaluate the maternity leave from the physician fathers' perspective and examine the factors affecting their support for their female physician colleagues.

Materials and methods

Design

This is a descriptive research study with a self-reported online survey design. Ethical approval for this study was granted by the Hacettepe University Non-Interventional Clinical Research Ethics Committee (Approval date/number: 05/02/2019/19-135).

Setting and participants

The data was collected by conducting an online survey among an online social group named *Physician Fathers* ("Doktor Babalar" in Turkish). The group is reliable in terms of input from participants, who are both doctors and fathers. Subjects other than physicians and fathers are not included in this social media group. In order to verify this, the physician ID's photo and a reference from group members who know him are required from those who want to join the group. At the time of the study, there were 15,653 members. The sample was not selected in advance, since it was not known how many of the group members actively used social media. The online survey link was shared within the group, to make it available for all. A reminder link was sent periodically every week (nine times in total). After the planned research period (April 1-May 31, 2019) ended, the online link was closed. In total, 345 individuals volunteered to participate in the study. The response rate was 2.20%. The research error due to the sample number, calculated with the G-power program, was 5.22% at a 95% confidence interval (CI).

Measurement

A 20-item data-collecting tool was used for this study. The tool consisted of four parts: a socio-demographic data section, questions about the respondent's job, questions pertaining to his wife's breastfeeding, and ques-

tions regarding his opinions and attitude toward his female physician co-workers. In the socio-demographic data section, we asked each participant to provide his age, marital status, number of children, and age of the smallest child. The section of questions about his job consisted of eight questions concerning his specialty, facility, professional position, years of experience, geographic region of the facility, night shift, and the situation related to his knowledge about breastfeeding (the breastfeeding education provided by the Ministry to physicians working in primary care, pediatrics or obstetrics units, and the training given about breastfeeding at medical school, congresses or during specialty training). The third part contained three questions about his wife's breastfeeding condition, the status of her breastfeeding leave, and the support he provided to her. In the last part, we inquired about his attitudes and experiences related to his female co-workers' breastfeeding leave rights with six questions.

In the designing phase of the study, no scale could be found for this topic, for which reason a Turkish validity analysis was conducted. Therefore, researchers designed the questionnaire used in this study. While compiling the questionnaire, a literature review was performed, and the opinions of the researchers who had studied this topic were gathered. To test the survey's reliability, we conducted a test-retest with 30 participants before starting the main research. The analyses performed in the pilot application underlined a significant correlation between all the paired items ($p < 0.05$). The correlation coefficients of the items were within the range of 0.696-1.000. After the completion of the study, we calculated the Cronbach's α value, to test for internal consistency ($R^2 = 0.22$). We concluded that our survey was not reliable. Thus, we decided to call this survey a "data-collecting tool", and not to use the total score, but rather to evaluate the questions separately.

Data collection

The data was collected from the online social media group. After providing information about the research, the link to the data collection tool was shared within the social media group (*Physician Fathers*). A reminder message was sent periodically. The questionnaire was filled in anonymously, and it did not include any question that would reveal the identity of the respondent. Clicking the link, a query asking for the informed consent popped up. If the participants accepted, the questions would be displayed.

Data analysis

The Shapiro-Wilk test was used to determine whether data had a normal distribution. First, the collected

data was used for descriptive statistics. The frequencies for categorical variables and the measures of central tendency (mean \pm standard deviation) for continuous variables were calculated. A chi-squared test was used to analyze the categorical data. For the data with a normal distribution (eg., age, number of children, years of experience, how long they think working women should breastfeed and benefit from their breastfeeding leave), independent samples of T-test were used to compare independent groups (supportive and neither supportive nor unsupportive groups toward their colleagues' use of breastfeeding leaves, groups receiving and not receiving breastfeeding education). A logistic regression analysis was used to investigate the factors affecting the participants' support status toward their colleagues' use of breastfeeding leaves. The outcome variable (the attitude toward their colleagues' use of breastfeeding leaves) has two categories (supportive and neither supportive nor unsupportive). The Wald chi-squared test was used to determine the significance of the model coefficients generated using logistic regression. In the model, the continuous variable predictors are age, number of children, and years of experience. Categorical variable predictors are being married (compared to widowed), having a supervision duty (compared to not), having a night shift (compared to not), having an increasing number of night shifts (compared to not), having an increasing number of patients to be examined (compared to not), having education about breastfeeding (compared to not), having breastfeeding education from the Ministry of Health's in-service training (compared to not), being always supportive toward his wife with regard to childcare (compared to occasionally or not supportive), not having a problem with his wife using the leave or not working during this period (compared to not exercising maternity leave or using fewer hours of the leave or not known by him). The results were presented using estimated coefficients, standard errors, Wald chi-squares, p-values, odds ratios, and confidence interval. A p-value of less than 0.05 was considered for statistical significance, with a 95% CI.

Results

Socio-demographic features of the sample

A total of 345 people volunteered to participate in the survey through the link sent to the social media group. Mean age of participants was 36.2 ± 6.3 . In addition, 91.9% (n = 317) of participants were married, 7.2% (n = 25) were divorced, 0.6% (n = 2) were single, and 0.3% (n = 1) were widowers. The mean number of children each subject had was 1.6 ± 0.7 (min: 1-max: 5), and the mean age of their youngest child was 5.3 ± 4.2 .

Professional characteristics of participants

The participants' socio-demographic and professional characteristics are presented in Table 1. It can be seen that 19.7% (n = 68) of participants had a managerial role in the institution where they worked, and 49.6% (n = 171) of them had the night shift. Moreover, 83.2% of the physician fathers (n = 287) had worked with a female physician colleague.

Additionally, 51.6% (n = 178) of physician fathers indicated that they received education about breastfeeding and human milk. Most of the physician fathers received this education from the Ministry of Health's in-service training program (29.9%; n = 103), and the others from medical school (19.1%; n = 66), congresses (12.5%; n = 43), and specialty training (5.8%; n = 20).

Physicians' attitude toward their wife and female colleagues using breastfeed leave right

Table 2 shows a physician father's attitude toward his wife and colleagues and their use of breastfeeding leave rights.

It can be seen that 45.5% (n = 157) of the participants stated that they experienced difficulties due to their female colleagues' use of breastfeeding leave. These difficulties included an increase in the number of night shifts (46.4%; n = 160), an increase in the number of patients to examine (31.9%; n = 110), having a problem in using annual leaves (13%; n = 45), patients having problems (11.6%; n = 40), as they could not find their colleague. Participants were asked how long they thought working women should breastfeed and use breastfeeding leaves; they responded with an average of 21.0 ± 5.1 (min: 6-max: 36) months for the breastfeeding period and an average of 15.7 ± 6.4 (min: 4-max: 24) months for the breastfeeding leave duration. The answer to the duration of breastfeeding leave specified by those who were trained in breast milk education organized by the Ministry (17.3 ± 6.2) was significantly higher than that of those who did not receive any education (15.0 ± 6.4) (p = 0.003). Breast milk education received from medical school (p = 0.521), specialty education (p = 0.546), and congresses (p = 0.168) had no significant effect on the opinions of the physicians regarding the duration of breastfeeding.

Participants were asked the following open-ended questions: how can working mothers use breastfeeding leave rights without increasing the burden of their colleagues? How can changes be made in this regard? Their responses were gathered under the following headings: "supervisors must be flexible"; "there should be 24-hour nurseries on the premises"; "an additional pay should be granted to the colleagues who will take over the job"; "the number of in-hospital physicians should be in-

Table 1. Participants' demographic and professional characteristics and their attitudes toward their female colleagues using breastfeeding leaves

Characteristics (N. = 345)	Total	Attitude toward female colleagues using breastfeeding leaves		p
		Supportive	Neither supportive nor unsupportive	
Age, M ± SD	36.2 ± 6.3	36.4 ± 6.6	36.0 ± 5.9	0.577
Marital status, n. (%)	Married	317 (91.9)	198 (62.5)	0.005
	Widowed	28 (8.1)	10 (35.7)	
Number of children, M ± SD	1.6 ± 0.7	1.6 ± 0.7	1.5 ± 0.6	0.381
Years of experience, M ± SD	11.0 ± 6.2	11.6 ± 6.5	10.2 ± 5.5	0.049
Facility, n. (%)	University hospital	71 (20.6)	41 (57.7)	0.006
	Research and training hospital	73 (21.2)	43 (58.9)	
	State hospital	93 (27)	49 (52.7)	
	Private hospital/clinic	31 (22.6)	16 (51.6)	
	Family health center	62 (18)	45 (72.6)	
	Other health-care facilities*	15 (4.3)	14 (93.3)	
Professional position, n (%)	Academic	20 (5.8)	17 (85.0)	0.013
	Specialist	179 (51.9)	95 (53.1)	
	Resident	37 (10.7)	21 (56.8)	
	General practitioner	94 (27.2)	64 (68.1)	
	Dentist	15 (4.3)	11 (73.3)	
Specialty, n (%)	Nonsurgical	221 (64.1)	137 (62.0)	0.053
	Surgical	104 (30.1)	56 (53.8)	
	Other**	20 (5.8)	15 (75.0)	
Region, n (%)	Central Anatolia	94 (27.2)	53 (56.4)	0.003
	Marmara	77 (22.3)	59 (76.6)	
	Black Sea	58 (16.8)	32 (55.2)	
	Mediterranean	48 (13.9)	27 (56.3)	
	Aegean	29 (8.4)	18 (62.1)	
	Southeastern Anatolia	20 (5.8)	13 (65.0)	
	Eastern Anatolia	19 (5.5)	6 (31.6)	

*Community health center, provincial health directorate, emergency medical services (ambulance), joint health and safety unit. **Dentistry.

Table 2. Attitude of doctors participating in the survey toward their wives and their colleagues practicing breastfeeding and using breastfeeding leave right

N. = 345		n.	%
Wife's profession	Physician	159	46.1
	Other health professions	83	24.1
	Teacher	28	8.1
	Other	49	14.2
	Not working	26	7.5
Wife's breastfeeding status	Breastfed	326	94.5
	Not breastfed	19	5.5
Wife's breastfeeding leave rights use	Not working at that time	93	27.0
	Fully exercised	133	38.6
	Not exercised or used fewer hours/days	101	29.3
	Not known by him	18	5.2
Doctor's attitude toward his own wife about childcare	Always supportive	187	54.2
	Occasionally supportive	139	40.3
	Not supportive	19	5.5
Doctor's attitude toward female physician colleagues about using breastfeeding leave	Supportive	208	60.3
	Neither supportive nor unsupportive	137	39.7
	Unsupportive	0	0

creased"; "female/male physicians should have a proportional distribution"; "this would not possible under the current conditions".

A comparison of the experiences regarding the use of breastfeeding leave by female colleagues between the internal medicine branches and surgical branches is provided in Table 3.

The percentage of subjects having a night shift and stating that they experienced difficulties due to their colleagues' use of breastfeeding leaves was 52% (n = 89). In this regard, the rate was 39.1% (n = 68) for those working in a unit that did not have a night shift, and the difference between them was significant (p = 0.010). There was a significant difference between their wives' status of using breastfeeding leave and having problems with their colleagues about breastfeeding leaves (p = 0.009). Moreover, 39.8% (n = 37) of the participants' wives were not working, the wives of 42.1% (n = 56) of them fully used their breastfeeding leaves, 49.5% (n = 50) of the participants' wives could not use their leaves completely, or used fewer hours/days, and 77.8% (n = 14) of them did not have an idea about their wife's breastfeeding leave use status, and stated that their col-

leagues faced difficulties due to their use of breastfeeding leave.

The factors that may affect their support toward their female physician colleagues on the use of breastfeeding leave are shown in Table 4. When we examined the factors affecting the participants' supportive attitude toward their colleagues using the logistic regression model, it was found that an increase in the number of night shifts exhibited a negative relationship. However, the supportive attitude toward their spouse and the status of their spouse using breastfeeding leave show a significant positive relationship (Table 5). The sensitivity of the binary logistic regression model was 64.9%, and the specificity was 81.3%.

Discussion

From this study, it was discovered that almost half of participants experienced various problems due to the amount of workload when their female physician colleagues went on maternity leave. Despite the difficulties, physician fathers stated that they partially or complete-

Table 3. Comparison between surgical and internal medicine branches regarding the use of breastfeeding leave

N. = 325*		Internal n. (%)	Surgical n. (%)	p
Some difficulty due to the use of breastfeeding leaves	None	113 (63.8)	64 (36.2)	0.050
	Increase in the number of night shifts	111 (73.5)	40 (26.5)	0.031
	Increased number of patients to be examined	82 (80.4)	20 (19.6)	0.001
	Having a problem in using annual leaves	33 (82.5)	7 (17.5)	0.024
Having a female physician colleague	Yes	184 (68.9)	83 (31.1)	0.271
	No	37 (63.8)	21 (36.2)	
Status regarding education on breastfeeding	Yes	152 (86.4)	24 (13.6)	<0.001
	No	69 (46.3)	80 (53.7)	
Supporting his wife in childcare	Always supportive	129 (75.4)	42 (24.6)	<0.001
	Occasionally supportive	75 (55.6)	60 (44.4)	
	Unsupportive	17 (89.5)	2 (10.5)	

*Dentists have not been included in this table.

Table 4. Factors affecting the support toward colleagues used breastfeeding leaves

N. = 345		Supportive n. (%)	Neither supportive or unsupportive n. (%)	p
Duty of supervision	Yes	50 (73.5)	18 (26.5)	0.008
	No	158 (57)	119 (43)	
Having a night shift	Yes	93 (54.4)	78 (45.6)	0.017
	No	115 (66.1)	59 (33.9)	
Increase in the number of night shifts due to breastfeeding leave	Yes	70 (43.8)	90 (56.3)	<0.001
	No	138 (74.6)	47 (25.4)	
Increased number of patients to be examined due to breastfeeding leave	Yes	47 (42.7)	63 (57.3)	<0.001
	No	161 (68.5)	74 (31.5)	
Breastfeeding leave rights used by wives	Not working at that time	58 (62.4)	35 (37.6)	0.037
	Fully exercised	90 (67.7)	43 (32.3)	
	Not exercised or used fewer hours/days	52 (51.5)	49 (48.5)	
	Not known by him	8 (44.4)	10 (55.6)	
Attitude toward his own wife regarding childcare	Always supportive	152 (81.3)	35 (18.7)	<0.001
	Occasionally supportive	51 (36.7)	88 (63.3)	
	Unsupportive	5 (26.3)	14 (73.7)	

Table 5. Results of the binary logistic regression model regarding the support toward colleagues on the use of breastfeeding leaves (compared to neither supportive nor unsupportive)

	Coefficient (β)	SE (β)	W	p	OR	95% CI	
						Lower	Upper
Age	0.110	0.060	3.383	0.066	1.116	0.993	1.254
Number of children	-0.410	0.227	3.270	0.071	0.664	0.426	1.035
Being married (compared to widowed)	1.123	0.491	5.234	0.022	0.325	0.124	0.851
Years of experience	-0.139	0.060	5.285	0.022	0.871	0.774	0.980
Duty of supervision (compared to not)	0.390	0.378	1.065	0.302	1.477	0.704	3.098
Having night shift work (compared to not)	-0.279	0.278	1.007	0.316	0.757	0.439	1.305
Increase in the number of night shifts (compared to not)	-1,428	0,418	11,671	0,001	4,171	1,838	9,464
Increase in the number of patients to be examined (compared to not)	-0,219	0,424	0,265	0,607	1,244	0,,542	2,859
Having education about breastfeeding (compared with not)	-0,268	0,334	0,644	0,422	1,308	0,679	2,518
Receiving breastfeeding education from the Ministry of Health's in-service training (compared to not)	0,305	0,384	0,630	0,427	0,737	0,347	1,565
Always supportive of his wife about childcare (compared to occasionally or unsupportive)	2.103	0.274	58.975	<0.001	0.122	0.071	0.209
Not having a problem with his wife while using leaves or not working during this period (compared with leave not used or used fewer hours or not known by him)	0.567	0.271	4.383	0.036	0.567	0.334	0.964

N. = 345, Nagelkerke R² = 0.359. SE, standard error; W, Wald chi-square; OR, odds ratio; CI, confidence interval.

ly supported their colleagues with regard to the use of their breastfeeding leaves.

The results of the studies by Ersen et al.⁴ and Eren et al.,¹⁴ which examined the breastfeeding behaviors of Turkish physician mothers, support our data. In these studies, physician mothers stated that they received support from their colleagues. In the study by Orth et al.,¹⁵ 84% of physician assistants in obstetrics and gynecology stated that their assistant friends were supportive. The main topics in this qualitative study on the physician mothers' experiences in their work lives and during motherhood – which were shared in the social media group they are members of in the United States – were sexism at work, limitation to professional progress, financial inequalities, inadequate support from colleagues and managers after pregnancy and childbirth, and difficulties in maintaining the professional-private life balance.¹⁶ The main topics emerging in another qualitative study on women physicians in Japan were

sexist discrimination by male doctors (some departments did not want a female physician and featured sexual abuse and a slower career than male doctors), lack of support during pregnancy and childcare (part-time work was not allowed and they had difficulties in using maternity and childcare leave), and as a result, physician mothers felt guilty about using leave and working in easier jobs.¹⁷ Perhaps, for this reason, the rate of female physicians in Japan is quite low (20.3%) compared to OECD countries. It's worth noting that the rate of female physicians in Turkey is 40.1%, well below the other OECD countries.¹⁸ Working women experience various problems related to several economic, social, biological and cultural factors. In the business environment, it has been observed that women experience problems arising from gender-based occupational discrimination. In order to prevent these problems and to empower more women to work in the commercial sector, many legal arrangements are made. However, especial-

ly in patriarchal societies, cultural factors are an important factor that regulates the role of women in business. The job definition for women in Turkish culture is a housewife who takes good care of her home and her children. Motherhood and breastfeeding have a sacred place in Turks and Muslim societies.¹⁹ Breastfeeding rates in Turkey are high, and the last population-based survey found the median duration of breastfeeding to be 16.7 months and the total fertility rate 2.3.²⁰ In recent years, due to the economic problems of the country and the increase in the level of education, the working rate of women increased as well. However, the fact that women are working does not relieve them of their domestic chores and the responsibility of being a good mother to their children. In fact, the burden on women is increasing. It puts increasingly more overwhelming pressure on mothers, who stop breastfeeding early, due to difficulties at work. For this reason, women stay away from professions such as medicine, which impose a heavy workload. Even if they are doctors, they do not consider specializations with difficult working conditions, such as the surgical ones.²¹⁻²³

We found that marital status, professional experience, an increasing number of night shifts, support toward the spouse, and the status of the spouse's use of leaves significantly affected support toward colleagues. Physician fathers who had received breastfeeding training thought that mothers should breastfeed longer and use maternity leaves for a longer period of time; however, we found that being educated about breastfeeding has no significant effect on support. Usually, breastfeeding education focuses on breastfeeding techniques.²⁴ In such programs, the difficulties experienced by working mothers, with particular reference to the psychological support, are the topics that should be emphasized.

We established that the increase in the number of night shifts during the use of maternity leaves by colleagues is the most important factor that causes a reduction in support for female colleagues. Nearly half of the physicians stated that there was an increase in the number of night shifts. It is well known that working at night negatively affects the emotional and psychological well-being and the mood.^{25,26} In addition, it has been shown that heart rhythm disorders, hypertension, and various cancers are more frequently detected in night-shift workers, due to diurnal rhythm disturbance and changes in the stress hormone levels.²⁷⁻²⁹ Some of the participants also reported that there was an increase in the number of patients to be visited, difficulties in using annual leaves, and problems with patients. Ageing populations – and consequently increasing morbidity rates – increase the need for a larger health workforce. However, the number of physicians is not sufficient to handle this workload.^{30,31} In addition, the frequency of onset of burnout syndrome increased in healthcare

workers, due to the increase in workload.³² The method used for solving the increased workload as a result of maternity leaves by assigning other physicians to their tasks does not seem applicable under these circumstances. For working mothers, using maternity leave and spending time with their babies is most natural. However, the worry that this will turn into a burden on their colleagues creates stress in the mothers. There are many studies in the literature that question the effects of the mothers' use of breastfeeding leave on the mother herself and her baby, and the results support an increase in breastfeeding leave duration.³³ However, in the policies designed for maternity/breastfeeding leaves, male employees and female employees without children are at a disadvantage. These colleagues' problems need to be discussed. The increase in the burden on physicians who are already operating under a large workload, due to the leaves taken by their colleagues, makes it impossible to establish a peaceful environment in the workplace. Our participants made suggestions for solving this problem, such as opening 24-hour childcare centers in hospitals, paying an additional fee to the care physician, and equalizing the number of female/male doctors working in the units. When resuming their work after giving birth, mothers worry about caring for their babies and not being able to give them enough breast milk.³⁴ Twenty-four-hour childcare centers in hospitals are seen as a good way to eliminate such worries. Few studies in the literature addressed the topics of the carers of the children of working mothers, the state regulations on this issue, and the caregivers' instability and their effects on maternal and child health.³⁵⁻³⁷ Although this issue is important, there is very poor evidence in the literature on this matter; thus, more research is needed to comment on the topic. Another suggestion was to pay an additional fee to the remaining physicians. The amount of the wages that physicians receive for their work is also among the factors affecting the level of burnout.³⁸ Although in practice equalizing the ratio of women and men working in the units seems to be a suitable solution, it is considered to be a sexist approach. Thus, it was not considered appropriate for discussion.

As a result, this study was aimed to draw attention to the maternity leaves that the female physicians frequently use – and whose duration should be targeted to be increased, rather than reduced – and the problems faced by their colleagues because of it.

To the best of our knowledge, there are no studies in the literature addressing this issue. In particular, it has been concluded that prospective studies, involving both male and female physicians, or studies with in-depth interviews are needed to better understand the barriers and the facilitators in this area. We believe that the outcomes of this work may open the way to further studies.

Limitations

The most significant limitation of this study is that only 345 volunteers participated, out of the group of 15,653 members (response rate: 2.20%). The low participation rate might be due to the fact that this group was very active and posts were very often shared. So, although we sent a reminder message at certain intervals, our study link may have been overlooked due to fast message circulation. Moreover, it may have been overlooked by those members who do not actively use social media. Another limitation is that research conducted on social media might be considered less reliable.³⁹ However, the members had to prove that they were physicians in several ways, in order to participate in the social media group, where the study was conducted. This situation can be seen as an advantage over a face-to-face survey, instead of being considered a limitation. Participants could express their real thoughts on this matter without any hesitation. Another limitation of the study is that it does not reflect the views of all physician fathers working in Turkey, but instead reflects the opinions of physician fathers who are members of a social media group. Our data cannot be generalized to all physician fathers. We think that cross-sectional studies – or studies based on qualitative interviews, in which the opinions of male and female physicians are collected together – could provide more detailed information in future studies on this topic.

Key messages

- Physician fathers wanted to support their colleagues in using their breastfeeding leave; however, they faced an increased amount of workload.
- An increase in the number of night shifts negatively affected the supportive attitude toward their female physician colleagues.
- The attitude of physician fathers, whose spouses use breastfeeding leave comfortably, toward their colleagues' use of the same leave was positive. In addition, the attitudes of those who showed a supportive attitude toward their spouses were also positive toward their female colleagues.
- Despite it being an important issue, there is insufficient data in the literature on this topic.

References

1. Chzhen Y, Gromada A, Rees G. Are the world's richest countries family friendly? Policy in the OECD and EU. UNICEF Office of Research. 2019.
2. Chai Y, Nandi A, Heymann J. Does extending the duration of legislated paid maternity leave improve breastfeeding practices? Evidence from 38 low-income and middle-income countries. *BMJ Glob Health*. 2018;3:e001032.
3. Resmî Gazete [Internet]. 657 sayılı Devlet Memurları Kanunu Genel Tebliği. 2016;29683. Available from: <https://www.resmigazete.gov.tr/eskiler/2016/04/20160413-10.htm>.
4. Ersen G, Kasim I, Agadayi E, Demir Alsancak A, Sengezer T, Ozkara A. Factors affecting the behavior and duration of breastfeeding among physician mothers. *J Hum Lact*. 2020;36(3):471-7.
5. Froh EB, Spatz DL. Navigating return to work and breastfeeding in a hospital with a comprehensive employee lactation program. *J Hum Lact*. 2016;32(4):689-94.
6. McCardel RE, Padilla HM. Assessing workplace breastfeeding support among working mothers in the United States. *Workplace Health Saf*. 2020;68(4):182-9.
7. Freed GL, Clark SJ, Sorenson J, Lohr JA, Cefalo R, Curtis P. National assessment of physicians' breast-feeding knowledge, attitudes, training, and experience. *JAMA*. 1995;273(6):472-6.
8. Feldman-Winter LB, Schanler RJ, O'Connor KG, Lawrence RA. Pediatricians and the promotion and support of breastfeeding. *Arch Pediatr Adolesc Med*. 2008;162(12):1142-9.
9. Tsai SY. Impact of a breastfeeding-friendly workplace on an employed mother's intention to continue breastfeeding after returning to work. *Breastfeed Med*. 2013;8:210-6.
10. Sattari M, Levine DM, Mramba LK, Pina M, Raukas R, Rouw E et al. Physician mothers and breastfeeding: a cross-sectional survey. *Breastfeed Med*. 2020;15(5):312-20.
11. Rothenberger DA. Physician burnout and well-being: a systematic review and framework for action. *Dis Colon Rectum*. 2017;60(6):567-76.
12. Turgut N, Karacalar S, Polat C, Kiran O, Gultop F, Turkmen Kalyon S et al. Burnout syndrome during residency. *Turk J Anaesthesiol Reanim*. 2016;44(5):258-64.
13. Bazmi E, Alipour A, Yasamy MT, Kheradmand A, Salehpour S, Khodakarim S et al. Job burnout and related factors among health sector employees. *Iran J Psychiatry*. 2019;14(4):309-16.
14. Eren T, Kural B, Yetim A, Boran P, Gokcay G. Breastfeeding experiences of female physicians and the impact of the law change on breastfeeding. *Turk Pediatri Ars*. 2018;53(4):238-44.
15. Orth TA, Drachman D, Habak P. Breastfeeding in obstetrics residency: exploring maternal and colleague resident perspectives. *Breastfeed Med*. 2013;8(4):394-400.
16. Halley MC, Rustagi AS, Torres JS, Linos E, Plaut V, Mangurian C et al. Physician mothers' experience of workplace discrimination: a qualitative analysis. *BMJ*. 2018;363:k4926.
17. Yamazaki Y, Kozono Y, Mori R, Marui E. Difficulties facing physician mothers in Japan. *Tohoku J Exp Med*. 2011;25(3):203-9.
18. OECD [Internet]. Women make up most of the health sector workers but they are under-represented in high-skilled

- jobs. Share of female doctors. OECD Gender Equality Data. Available from: [https://www.oecd.org/gender/data/women-make-up-most-of-the-health-sector-workers-but-they-are-under-represented-in-high-skilled-jobs.htm#:~:text=The%20share%20of%20female%20doctors,by%202015%20\(Figure%201\)](https://www.oecd.org/gender/data/women-make-up-most-of-the-health-sector-workers-but-they-are-under-represented-in-high-skilled-jobs.htm#:~:text=The%20share%20of%20female%20doctors,by%202015%20(Figure%201).).
19. Tolunay O. Breastfeeding in history of Turkish medicine. *Lokman Hekim Journal*. 2014;4(3):6-10.
 20. Hacettepe University Institute of Population Studies [Internet], (2019). 2018 Turkey demographic and health survey. Hacettepe University Institute of Population Studies, TR Presidency of Turkey Directorate of Strategy and Budget and TÜBİTAK, Ankara, Turkey. Available from: <https://dhsprogram.com/publications/publication-FR372-DHS-Final-Reports.cfm>.
 21. Gül H, Yalçınoglu N, Atlı ZC. The status and problems of women in working life in Turkey. *TAF Preventive Medicine Bulletin*. 2014;13(2):169-76.
 22. Beduk A. Türkiye’de Çalışan Kadın Ve Kadın Girişimciliği. *Elektronik Sosyal Bilimler Dergisi*. 2005;12(3):106-17.
 23. Direk N, Irmak B. Attitudes of medical students towards gender roles at Dokuz Eylül university school of medicine. *DEÜ Tıp Fakültesi Dergisi*. 2017;31(3):121-8.
 24. Medical Faculty - National Core Curriculum 2020. *Tıp Eğitimi Dünyası*. 2020;19(57-1):1-146.
 25. Papp KK, Stoller EP, Sage P, Aikens JE, Owens J, Avidan A et al. The effects of sleep loss and fatigue on resident-physicians: a multi-institutional, mixed-method study. *Acad Medicine*. 2004;79:394-406.
 26. Persico N, Maltese F, Ferrigno C, Bablon A, Marmillot C, Papazian L et al. Influence of shift duration on cognitive performance of emergency physicians: a prospective cross-sectional study. *Ann Emerg Med*. 2018;72(2):171-80.
 27. Costa G. Sleep deprivation due to shift work. *Handb Clin Neurol*. 2015;131:437-46.
 28. Ferguson JM, Costello S, Neophytou AM, Balmes JR, Bradshaw PT, Cullen MR et al. Night and rotational work exposure within the last 12 months and risk of incident hypertension. *Scandinavian Journal of Work, Environment & Health*. 2019;45(3):256.
 29. Osterode W, Schranz S, Jordakieva G. Effects of night shift on the cognitive load of physicians and urinary steroid hormone profiles: a randomized crossover trial. *Chronobiol Int*. 2018;35(7):946-58.
 30. Petterson SM, Liaw WR, Phillips RL, Rabin DL, Meyers DS, Bazemore AW. Projecting US primary care physician workforce needs: 2010-2025. *Ann Fam Med*. 2012;10(6):503-9.
 31. Milani RV, Lavie CJ. Health care 2020: reengineering health care delivery to combat chronic disease. *Am J Med*. 2015;128(4):337-43.
 32. Humphries N, Morgan K, Conry MC, McGowan Y, Montgomery A, McGee H. Quality of care and health professional burnout: narrative literature review. *Int J Health Care Qual Assur*. 2014;27(4):293-307.
 33. Litwan K, Tran V, Nyhan K, Pérez-Escamilla R. How do breastfeeding workplace interventions work? A realist review. *Int J Equity Health*. 2021;20(1):148.
 34. Gokdemirel S, Bozkurt G, Gokçay G, Bulut A. Experiences of working mothers during breastfeeding: a qualitative study. *Çocuk Dergisi*. 2008;8(4):221-34.
 35. Pilarz AR, Hill HD. Unstable and multiple child care arrangements and young children’s behavior. *Early Child Res Q*. 2014;29(4):471-83.
 36. Pilarz AR, Hill HD. Child-care instability and behavior problems: does parenting stress mediate the relationship? *J Marriage Fam*. 2017;79(5):1353-68.
 37. Johnson AD, Padilla CM. Childcare instability and maternal depressive symptoms: exploring new avenues for supporting maternal mental health. *Acad Pediatr*. 2019;19(1):18-26.
 38. West CP, Dyrbye LN, Shanafelt TD. Physician burnout: contributors, consequences and solutions. *J Intern Med*. 2018;283(6):516-29.
 39. Pedersen ER, Kurz J. Using Facebook for health related research study recruitment and program delivery. *Curr Opin Psychol*. 2016;9:38-43.
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