Determination of the Relationship Between the Level of Work-Family Life Conflict and Job Productivity and Work Stress in Nurses

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ABSTRACT

Objective: This study aims to determine how nurses' work-family life conflict level affects job productivity and work stress. Method: This cross-sectional study was conducted between May and July 2018. No sampling was performed; the study was conducted with 95 nurses who agreed to participate in the study among 231 nurses working in a public hospital. The data were collected using the Socio-demographic form, Work-Family Life Conflict Scale, Attitude Scale on Productivity, and Work Stress Scale. The data were analyzed using SPSS-22 statistical software. Results: The nurses were found to have a moderate-level (3.34±0.90) mean score in the Work-Family Life Conflict Scale. They were also found to receive a moderate-level score in the Attitude Scale on Productivity (49.17±3.74) and their work stress was also moderate. However, it was found that when working conditions worsened, their productivity decreased and family-work life conflict and work stress increased. In addition, dedication to the job was found to increase as the family-work conflict and work stress increased. Conclusion: High dedication to the job indicates that individuals try to be happy by establishing a psychological balance by giving priority to their work and by giving importance to their job. This study is believed to contribute to future studies that aim to increase nurses' productivity and decrease their work stress. It is recommended to do this work in larger groups and to make initiatives to reduce work stress and increase productivity in order to ensure work-family life balance.

Key words: Nurse, Work-Family Life Conflict, Productivity, Stress.
1. INTRODUCTION

Today's workers face rapid and important changes in terms of social and cultural aspects. It seems that is not that easy to establish a good balance between work and private life, and more specifically family life, on one hand, and to be happy in private life by spending more time with family on the other hand. The reason for this is the constantly changing structure of the work and family life areas (1). There are unwanted consequences of the conflicts caused by the effects of work life on family life and the family life on work life (2). When the individual or organizational consequences are considered, increasing work productivity and living away from stress is of importance for a healthier and more quality life (3). The flexibility of work life in terms of the place and time contexts and busy schedule of the work life are important sources of stress, which is not limited to the work life and causes work and family lives to be mixed by exceeding the lines (4-6).

Work and family life conflicts need to be managed effectively. In addition to the personal happiness and life satisfaction of workers, work-family life conflicts can affect the job stress, job satisfaction and organizational commitment levels that are important for the businesses they work with (3-7).

Productivity, one of the most important issues highlighted by organizations and countries, has been a topic that has been investigated with its different dimensions (8). Productivity expresses the relationship between the outcome produced by a service system and the input used to create this outcome; namely, how well sources are used (8). As to workforce productivity, it is obtained by dividing the output by the amount of workforce used to produce that output. Workforce productivity is reported to be affected by individual, psychological, socio-cultural features of workers, technological knowledge and use, and political, environmental, and organizational factors (8-10).

When modern hospitals are considered in terms of workforce productivity, the largest part belongs to the services provided by nurses, forming 60% of hospital workers (11). Primary factors that affect nurses' workforce productivity include the high number of patients per nurse, duties apart from care, high amount of documentation work, work health, and lack of work safety, workload, and work stress (12). Because it is directly related to the habits and experiences of individuals, job stress is one of the important factors affecting variables such as organizational commitment, job satisfaction, intention to quit and productivity (13-15). Slatten found that role conflict, role burden, and job-family conflict that cause job stress have an indirect effect on employee's perceived service quality through emotional satisfaction (16). This study aims to identify how nurses' work-family life conflict level affects job productivity and work stress. This study is believed to contribute to future studies that aim to increase nurses' productivity and decrease their work stress.

Research Questions
- Is there a relationship between work-family life conflict level and work efficiency in nurses?
- Is there a relationship between work-family life conflict level and work stress in nurses?
- Is there a relationship between work efficiency and work stress in nurses?
2. METHOD

This study, which adopted a cross-sectional screening methodology, was conducted in Agri Public Hospital located in Agri city center between May and July 2018. The target population of the research consists of 198 active nurses out of 231 working in Agri Public Hospital. No sampling was performed; the participants included 95 nurses who worked in Agri Public Hospital and agreed to participate in the study.

Data Collection

After the participants were informed about the purpose of the study, data were collected by the researcher from the nurses who volunteered to participate in the study at a time within working hours as approved by Agri Public Hospital Administration. Data collection forms were applied to the participants (between 08.00-16.00) and collected back approximately 20-25 minutes later.

Data Collection Tools

The Socio-demographic Form:

The form consisting of 9 questions prepared by the researcher in line with the relevant literature (1,8,11); is composed of questions that aimed to collect information about gender, age, marital status, working position, service, working status, duration of working in the service they work, total duration of working, work-life.

Work-Family Life Conflict Scale:

The reliability and validity of the scale, which was originally developed by Netenmeyer et al. (1996), by Efeoglu (2006) for our country to measure workers' work-family life conflict levels was performed (17,18). The scale included two sub-scales (work-family conflict due to work life and family-work conflict due to family life) and 10 items responded on a 5–point Likert scale and aimed to identify work-family conflict caused by work life and family-work conflict caused by family life. Increasing the total score indicates that the level of conflict has increased. The Cronbach’s alpha values obtained in this study were 0.96 and 0.93 for the work-family conflict and family-work life conflict aspects respectively.

Attitude Scale on Productivity:

The scale was developed by Göktepe (2010) to evaluate nurses’ attitudes toward productivity and is responded on a 5-point Likert scale (11). The scale has 39 items and 5 sub-scales; 21 items are scored negatively. The sub-scales are dedication to the job, working conditions, demands of job, teamwork, and awarding. The scores are converted to 100 points, and higher scores indicate more positive attitudes. This study identified Cronbach's alpha value as 0.98.
Work Stress Scale:

The scale was developed by House and Rizzo (1972); its reliability and validity were performed by Efeoglu (2006) (18,19). The 7-item scale responded on a 5-point Likert scale aims to measure psychological and psychosomatic symptoms related to the stress experienced at work. Increasing the total score indicates that the stress level has increased. The scale identifies how much the stress experienced at work occupies the mind. Reliability analysis alpha values of the Work Stress Scale were found 0.94 in this study.

Data Analysis

The analysis of the data was done on the computer using the SPSS-22 statistical software. Descriptive statistics, Kolmogorov-Smirnov, Mann-Whitney U, Kruskal-Wallis, Linear regression, and Spearman correlation tests were used to evaluate the data. Explore and normality plots with tests were used as descriptive statistical methods. Kolmogorov – Smirnov test was used to test normality distribution with analytical tests. Since the Kolmogorov - Smirnov test value was p <0.05, it was determined that the data were not distributed normally. P <0.05 is considered significant in the study.

Ethical Considerations

Approval was obtained from Agri Ibrahim Cecen University Scientific Research Ethics Committee (Date 06.06.2018, number 49), and written permission was obtained from the institution where the study was conducted (local health authority). Necessary explanations were made to the participants, and verbal consent was obtained from those who agreed to participate in the study.

3. RESULTS

Table 1 demonstrates the demographic features of the nurses who participated in the study. The table shows that 68.4% of the participating nurses were female, %53.7 were aged between 24 and 29, 50.5% were single, 64.2% were permanent staff, and 35.8% were contracted staff. Of all the nurses, 60.0% worked as service nurses, 38.9% worked in risk units (Emergency Service, Intensive care), and 34.7% worked in surgery units. The total working duration for 46.3% was from 1 to 5 years, and the duration of working in their current clinic was 1 to 5 years for 67.4%. Quality of work life was reported to be good by 54.7% of the nurses.

The nurses were found to have a moderate-level (3.34±0.90) mean score in the Work-Family Life Conflict Scale (Table 2). An analysis of the sub-scale scores shows that the highest mean score (3.38±0.88) was in the “Family-work Conflict” sub-scale, and the lowest mean score was in the “Work-family Conflict” sub-scale (Table 2).

Analysis of Table 3 shows that: the nurses received a moderate-level score in the Attitude Scale on Productivity (49.17±3.74). An analysis of the sub-scale scores indicated that the highest mean score was in the “awarding” sub-scale (60.19±26.17), and the lowest score was in the “working conditions” sub-scale (39.66±24.18). The nurses were found to have a moderate-level mean score in the Work Stress Scale (3.37±0.86).
Table 1. Frequency and Percentage Distributions of the Demographic Features of the Participating Nurses (n=95)

| Feature                        | n    | %   |
|--------------------------------|------|-----|
| Gender                         |      |     |
| Female                         | 65   | 68.4|
| Male                           | 30   | 31.6|
| Age                            |      |     |
| 18-23                          | 18   | 18.9|
| 24-29                          | 51   | 53.7|
| 30-35                          | 18   | 18.9|
| 36-41                          | 6    | 6.3 |
| 42 and over                    | 2    | 2.1 |
| Marital Status                 |      |     |
| Single                         | 48   | 50.5|
| Married                        | 47   | 49.5|
| Working Position               |      |     |
| Supervisor nurse               | 8    | 8.4 |
| Service nurse                  | 57   | 60.0|
| Other                          | 30   | 31.6|
| Service                        |      |     |
| Internal Medicine              | 12   | 12.6|
| Clinics                        | 8    | 8.4 |
| Surgical Unit                  | 33   | 34.7|
| Risk Units (Emergency Service, Intensive care) | 37 | 38.9 |
| Others (Education nurse, infection nurse, administrative duty nurses) | 5 | 5.3 |
| Working status                 |      |     |
| Permanent Staff                | 61   | 64.2|
| Contracted Staff               | 34   | 35.8|
| Duration of working in the service they work | | |
| Less than 1 year               | 23   | 24.2|
| 1-5 years                      | 64   | 67.4|
| 6 years and more               | 8    | 8.4 |
| Total duration of working      |      |     |
| Less than 1 year               | 16   | 16.8|
| 1-5 years                      | 44   | 46.3|
| 6 years and more               | 35   | 36.8|
| Work-Life Quality              |      |     |
| Very good                      | 3    | 3.2 |
| Good                           | 52   | 54.7|
| Bad                            | 29   | 30.5|
| Very bad                       | 11   | 11.6|

The results are expressed as number (n) and percent (%).

Table 2. Levels of Work-Family Life Conflict Scale and its Sub-scales

| Scale               | Minimum | Maximum | Mean   | Std. Deviation |
|---------------------|---------|---------|--------|----------------|
| Work-family Conflict| 1.00    | 5.00    | 3.31   | 0.96           |
| Family-Work Conflict| 1.00    | 5.00    | 3.38   | 0.88           |
| Scale Total         | 1.00    | 5.00    | 3.34   | 0.90           |

The results are expressed as mean and Standard deviation.
Table 3. Levels of Attitude Scale on Productivity and its Sub-scales and Levels of Work Stress Scale

|                                | Minimum | Maximum | Mean  | Std. Deviation |
|--------------------------------|---------|---------|-------|----------------|
| Dedication to the Job          | 18.75   | 87.50   | 57.33 | 18.73          |
| Working Conditions             | 0.00    | 100.00  | 39.66 | 24.18          |
| Demands of job                 | 12.50   | 87.50   | 42.13 | 17.94          |
| Leader-member relationships    | 25.00   | 78.13   | 55.62 | 14.25          |
| Teamwork                       | 0.00    | 100.00  | 60.19 | 26.17          |
| Awarding                       |         |         |       |                |
| Scale Total                    | 41.03   | 57.05   | 49.17 | 3.74           |
| Scale total                    | 1.00    | 5.00    | 3.37  | 0.86           |

The results are expressed as mean and standard deviation.

As is seen in Table 4, was performed to identify the relationship between the participating nurses' work-family life conflict levels and attitudes toward productivity and work stress levels. The results showed that there was a negative, significant relationship between the participating nurses' work-family life conflict and attitudes toward productivity [r(95) = -0.255; p<0.05]. An analysis of the sub-scales of both variables indicated both a negative and positive relationship with each other (p<0.05). While the highest correlation was between the “Family-Work Conflict” and “Working Conditions” sub-scales [r(95) = -0.525; p<0.05], the lowest correlation was between the “Family-Work Conflict” and “Dedication to the Job” sub-scales [r(95)=0.452; p<0.05]. No significant relationships were found between nurses' attitudes towards productivity and work stress levels [r(95) = -0.190; p>0.05]. However, both negative and positive, significant relationships were found between the Work Stress Scale and Attitude Scale on Productivity sub-scales (p<0.05). While the highest correlation was with the “Dedication to the Job” sub-scale [r(95)= 0.545; p<0.05], the lowest correlation was with the “Working Conditions” sub-scale [r(95)= -0.517; p<0.05]. A positive and significant relationship was found between nurses’ work-family life conflict levels and work stress levels [r(95)= 0.777; p<0.05]. A positive, significant relationship was also found between work-family life conflict and work stress sub-scales (p<0.05). The table shows that there was a higher correlation between work stress and the "Family-Work Conflict" sub-scale [r(95)= 0.803; p<0.05].
### Table 4. Correlation Test Results regarding the relationship between the Participating Nurses’ Attitudes towards Productivity and Work-Family Conflict and Work Stress Levels

|                  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| (1) Attitudes toward Efficiency Total | r   | -   |     |     |     |     |     |     |     |     |
|                  | p   | -   |     |     |     |     |     |     |     |     |
| (2) Dedication to the Job | r   | -.046 |     |     |     |     |     |     |     |     |
|                  | p   | .660 |     |     |     |     |     |     |     |     |
| (3) Working Conditions | r   | .539 | -.711 |     |     |     |     |     |     |     |
|                  | p   | .000* | .029* |     |     |     |     |     |     |     |
| (4) Demands of Job | r   | .516 | -.761 | -.799 |     |     |     |     |     |     |
|                  | p   | .000* | .000* | .000* |     |     |     |     |     |     |
| (5) Leader-member relationships - Teamwork | r   | .156 | .749 | -.811 | -.753 |     |     |     |     |     |
|                  | p   | .131 | .000* | .000* | .000* |     |     |     |     |     |
| (6) Awarding | r   | -.249 | .678 | -.852 | -.729 | .822 |     |     |     |     |
|                  | p   | .015* | .000* | .000* | .000* | .000* |     |     |     |     |
| (7) Work-family life conflict total | r   | -.255 | .454 | -.515 | -.463 | .467 | .505 |     |     |     |
|                  | p   | .013* | .000* | .000* | .000* | .000* | .000* |     |     |     |
| (8) Work-Family Conflict | r   | -.246 | .477 | -.518 | -.485 | .464 | .508 | .959 |     |     |
|                  | p   | .016* | .000* | .000* | .000* | .000* | .000* | .000* |     |     |
| (9) Family-Work Conflict | r   | -.278 | .452 | -.525 | -.463 | .483 | .495 | .932 | .812 |     |
|                  | p   | .006* | .000* | .000* | .000* | .000* | .000* | .000* | .000* | .000* |
| (10) Work Stress Total | r   | -.190 | .545 | -.517 | -.541 | .542 | .535 | .777 | .733 | .803 | - |
|                  | p   | .065 | .000* | .000* | .000* | .000* | .000* | .000* | .000* | .000* | - |

The results are expressed with Spearman Correlation Test.

The results of the Linear regression analysis performed to identify the family-work conflict variable on the work stress variable are shown in Table 5 (p=.000<0.05; β=.884); the results show that the family-work conflict variable has a statistically significant and positive effect on the work stress variable. The results of the linear regression analysis performed for identifying the effect of work-family conflict on the work stress variable (p=.000<0.05; β=.847) showed that the effect of the work-family conflict variable on the work stress variable was positive and statistically significant. The findings obtained from the linear regression analysis performed to identify the family-work conflict variable on the attitudes towards productivity variable (p=.004<0.05; β=-.291) showed that the effect of the family-work conflict variable on attitudes toward productivity was statistically significant and negative. The results of the linear regression analysis performed to identify the effect of work-family conflict variable on the attitudes towards productivity (p=.011<0.05; β=-.261) indicated a statistically significant and negative effect of work-family conflict on attitudes towards productivity variable. The results of the linear regression analysis performed to identify the effect of the work stress variable on the attitudes towards productivity (p=.009<0.05; β=-.268) variable indicated a statistically
significant and negative effect of the work stress variable on the attitudes towards productivity variable.

Table 5: Effect of Family-Work Conflict and Work-Family Conflict on Work Stress and Productivity and the Effect of Work Stress on Productivity

|                      | Non-standardized Value | β | Standard Error (σ) | Standardized β Value | t value | Significance Level (p) |
|----------------------|------------------------|---|--------------------|----------------------|--------|-----------------------|
| Stable               | .456                   | .166                      | 2.752 | .007 |
| Family-Work Conflict | .864                   | .047                      | .884   | 18.227 | .000 |
| Stable               | .853                   | .171                      | 4.988  | .000 |
| Work-family conflict | .761                   | .049                      | .847   | 15.375 | .000 |
| Stable               | 53.343                 | 1.465                     | 36.405 | .000 |
| Family-Work Conflict | -1.232                 | .419                      | -2.939 | .004 |
| Stable               | 52.544                 | 1.343                     | 39.125 | .000 |
| Work-family conflict | -1.015                 | .389                      | -2.610 | .011 |
| Stable               | 53.098                 | 1.506                     | 35.263 | .000 |
| Work stress          | -1.161                 | .432                      | -2.688 | .009 |

The results are expressed with linear regression.

4. DISCUSSION

The work-family life conflict level of the participating nurses was found to be at a moderate level, and family-related conflicts were experienced more (Table 2).

Nurses' attitudes towards productivity were at a moderate level and their productivity was found to increase when they were awarded at work environment; however, their productivity decreased as their working conditions worsened (Table 3). The “awarding” sub-scale was scored high, indicating that the nurses were satisfied with the salary they received, their success was awarded, and hospital administrators behaved in an equal and fair way. Low scores on working conditions are thought to be due to having more than one service in a service.

The work stress of the participating nurses was found to be at a moderate level (Table 3). An analysis of this finding together with the previous one suggests that the results support each other.

A negative, significant relationship was found between the participating nurses’ work-family life conflict and attitudes towards productivity. This study found that nurses’ attitudes towards productivity increased with the decrease in their work-family life conflicts. In Taslak’s study with teachers, Hatam et al.’s study with nurses and paramedics, and Öztürk's study with nurses found that work-family life conflict affected productivity.

The highest correlation in the study was found between the “family-work conflict” and “working conditions” sub-scales. In this regard, the result indicating that “family-work
conflict” decreases as the “working conditions” improve is also in line with the other studies in the literature (20-22). The lowest correlation was found to be between the "dedication to the job” and "family-work conflict" sub-scales. The study results show that nurses’ "family-work conflict" increases with the increase in the "dedication to the job". The literature involves no similar studies; this finding is considered to indicate that too much dedication to the profession causes individuals to experience family-work conflict.

An analysis of the effect of family-work conflict and work-family conflict variables on the attitudes toward productivity variable indicates a statistically significant and negative effect of family-work conflict and work-family conflict variables on the attitudes toward productivity variable (Table 5). The literature also reports similar results the statistically significant and negative effect of family-work conflict and work-family conflict variables on the attitudes toward productivity variable. (20-22).

No significant relationship was found between nurses’ attitudes towards productivity and work stress levels. This finding indicates that there is no relationship between the nurses’ attitudes towards productivity and work stress levels. However, both negative and positive, significant relationships were found between work stress and the Attitude Scale on Productivity sub-scales (p<0.05). The lowest correlation was found between the work stress scale and the "working conditions" sub-scale. This study found that improving individuals’ working conditions decreased work stress. An analysis of the studies shows that the factors underlying the work stress affected productivity indirectly (23-29). The highest correlation was found with the "dedication to the job” sub-scale \[r(95)= 0.545; p<0.05\]. This finding indicates that nurses’ work stress was related to their dedication to the job; dedication to the job increased with the increase in the work stress and decreased with the decrease in the work stress. The literature was found to have no similar results, which was considered to result from individuals' sense of belonging to the profession. In addition, if the positive side of stress is considered, it can be concluded that dedication to the job increases with the increase in the importance given to the job.

An analysis of the effect of the work stress variable on the attitudes towards productivity showed that the work stress variable had a statistically significant and negative effect on the attitudes towards productivity variable (Table 5). The literature also reports similar results the work stress variable had a statistically significant and negative effect on the attitudes towards productivity variable (23-29).

An analysis of the relationship between nurses’ work-family life conflict levels and work stress showed that there was a positive and significant relationship between work-family life conflict levels and work stress, and work stress decreased as the work-family life conflict decreased. This study found that there was a higher correlation between work stress and the "family-work conflict" sub-scale, and work stress increased especially with the increase in family-related conflicts (Table 4). The number of women in this study was higher, and due to working, they had more responsibilities than men in terms of cultural factors, which is considered to have effects on the results. Similarly, Efeoglu (2006) reported that work-family life conflict had positive effects on work stress (14). The literature also reports similar results a positive and significant relationship between work-family life conflict levels and work stress, and work stress decreased as the work-family life conflict decreased. (4,5,30-33).
An analysis of the family-work conflict and work-family conflict variables on the work stress variable indicated that there was a statistically significant and positive effect of work-family conflict variables on the work stress variable (Table 5) The literature also reports similar results a statistically significant and positive effect of work-family conflict variables on the work stress variable (1,2,30-33).

5. CONCLUSION

Work-family life conflict, attitudes towards productivity, and work stress levels of the participating nurses were found to be at a moderate level. Nurses' productivity was found to increase when they were awarded, but their productivity was found to decrease and family-work conflict and work stress increased when their working conditions worsened. In addition, dedication to the job was found to increase as family-work conflict and work stress conflict increased. High dedication to the job indicates that individuals try to be happy by establishing a psychological balance by giving priority to their work and by giving importance to their job.

This study is believed to contribute to future studies that aim to increase nurses' productivity and decrease their work stress. It is recommended to do this work in larger groups and to make initiatives to reduce work stress and increase productivity in order to ensure work-family life balance.

Ethical Consideration of the Study

Approval was obtained from Agri Ibrahim Cecen University Scientific Research Ethics Committee (Date 06.06.2018, number 49), and written permission was obtained from the institution where the study was conducted (local health authority). Necessary explanations were made to the participants, and verbal consent was obtained from those who agreed to participate in the study.

Conflict of interest statement

The authors do not have any interest-based relationships.

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REFERENCES

1. Turunç, Ö., & Çelik, M. (2010). Algılanan örgütsel desteğin çalışanların iş-aile, aile-iş çatışması, örgütsel özdeşleşme ve işten ayrılma niyetine etkisi: Savunma sektöründe bir araştırma. Atatürk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 14(1), 209-232.
2. Aras, M. & Karakiraz, A. (2013). Zaman temelli iş aile çatışması, düşük başarı hissi ve iş tatmini ilişkisi: Doktora yapan araştırmacı görevlileri üzerinde bir araştırma. Siyaset, Ekonomi ve Yönetim Araştırmaları Dergisi, 1(4), 1-14.
3. Swimberghe, K., Jones, R. P., & Darrat, M. (2014). Deviant behavior in retail, when sales associates “Go Bad”! Examining the relationship between the work–family interface, job stress, and salesperson deviance. Journal of Retailing and Consumer Services, 21(4), 424-431.
4. Mache, S., Bernburg, M., Vitzthum, K., Groneberg, D. A., Klapp, B. F., & Danzer, G. (2015). Managing work–family conflict in the medical profession: working conditions and individual resources as related factors. *BMJ open*, 5(4), e006871.

5. Sharma, J., Dhar, R. L., & Tyagi, A. (2016). Stress as a mediator between work–family conflict and psychological health among the nursing staff: Modering role of emotional intelligence. *Applied Nursing Research*, 30, 268-275.

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

7. Firat, Z. M., & Cula, S. (2016). İş-Aile Çatışması, Aile-İş Çatışması ve İş Doyumunun Öğretmenlerin Yaşam Doyumu Üzerindeki Etkisi. *Başkent University Journal of Education*, 3(2), 146-155.

8. Zincirkıran, M., Çelik, G. M., Ceylan, A. K., & Emhan, A. (2015). İşgörenlerin örgütSEL bağılILık, isten ayrıılma niyeti, iş stresi ve iş tatmininin örgütSEL performans üzerindeki etkisi: Enerji sektöründe bir araştırma. *Finans Politik & Ekonomik Yorumlar*, 52(600), 59-71.

9. Eastaugh, S. R. (2007). Hospital nurse productivity enhancement. *Journal of health care finance*, 33(3), 39-47.

10. Ulukaya, H. (2019). *Stresin, iş gücü verimliliği üzerine etkisi: Bir uygulama*. (Yayımlanmamış Yüksek Lisans Tezi). İstanbul Gelişim Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.

11. Göktepe, N. (2010). *Hemşirelerin Verimliliğe İlişkin Tutumları ve Bir Ölçek Geliştirme Çalışması*. (Yayımlanmamış Doktora Tezi). İstanbul Üniversitesi Sağlık Bilimleri Enstitüsü, İstanbul.

12. Dikmen, Y., Yılmaz, D. K., Başaran, H., & Filiz, N. Y. (2016). Hemşirelerde İşgüçü Verimliliğini Etkileyen Faktörlerin Belirlenmesi. *Çağdaş Tip Dergisi*, 6(4), 334-342.

13. Firth, L., Mellor, D. J., Moore, K. A., & Loquet, C. (2004), “How can managers reduce employee intention to quit?”, *Journal of Managerial Psychology*, 19(2), 170-187.

14. Chang, H, Shih, C., & Liang, R. (2009), “Effects of Job Rotation and Role Stress among Nurses on Job Satisfaction and Organizational Commitment”, *BMC Health Service Research*, 9(8), 117-127.

15. Desa, A., Yussooff, F., Ibrahim, N., Kadir, N., &Rahman, R. (2014), “A Study of The Relationship and Influence of Personality on Job Stress among Academic Administrators at a University”, *Procedia Social and Behavioral Sciences*, (114), 355-359.

16. Slatten, T. (2008), “Antecedents and effects of emotional satisfaction on employeeperceived service quality”, *Managing Service Quality: An International Journal*, 18(4), 370 – 386.

17. 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.

18. Efeoğlu, İ. E., & Özgen, H. (2006). İş-Aile Yaşam Çatışmasının İş Stresi, İş Doyumu ve ÖrgütSEL BağılILık Üzerindeki Etkileri: İlaç Sektöründe Bir Araştırm. *Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 16(2), 237-254.

19. House, R. J., & Rizzo, J. R. (1972). Role conflict and ambiguity as critical variables in a model of organizational behavior. *Organizational Behavior And Human Performance*, 7(3), 467-505.

20. Taslak, S. (2007). İş-aile çatışmalarının bireysel ve örgütSEL sonuçları üzerine uygulamalı bir araştırma. *Yönetim Dergisi*, 18(58).
21. Hatam, N., Jalali, M. T., Askarian, M., & Kharazmi, E. (2016). Relationship between family-work and work-family conflict with organizational commitment and desertion intention among nurses and paramedical staff at hospitals. *International Journal of Community Based Nursing and Midwifery, 4*(2), 107.

22. Öztürk, N. Ş., & Akbulut, Y. (2011). Hemşirelerin İş Gücü Verimliliğini Etkileyen Örgütsel Faktörler Konusundaki Tutumlarının Belirlenmesi. *Ankara Sağlık Hizmetleri Dergisi, 10*(1), 19-30.

23. Bouwkamp, J. C. (2008). The work values and job satisfaction of family physicians. (Unpublished doctoral dissertation), Indiana University. Bloomington, Indiana.

24. Özbay, E. (2007). İstanbul ilinde askeri hastanelerde çalışan yöneticiler hemşirelerin stres kaynakları ve başa çıkma yöntemlerinin belirlenmesi. (Yayılmamış Yüksek Lisans Tezi). Marmara Üniversitesi, İstanbul.

25. Türk, K., Eroğlu, C., & Türk, D. (2008). TC Devlet Hastanelerindeki çalışma koşullarının stres üzerine etkilerini ölçmekte yönelik bir araştırma: Geyve Devlet Hastanesi örneği. *Uluslararası İnsan Bilimleri Dergisi, 5*(1), 1-17.

26. Hang-Yue, N., Foley, S., & Loi, R. (2005). Work role stressors and turnover intentions: A study of professional clergy in Hong Kong. *The International Journal of Human Resource Management, 16*(11), 2133-2146.

27. Ho, W. H., Chang, C. S., Shih, Y. L., & Liang, R. D. (2009). Effects of job rotation and role stress among nurses on job satisfaction and organizational commitment. *BMC health services research, 9*(1), 8.

28. Yin-Fah, B. C., Foon, Y. S., Chee-Leong, L., & Osman, S. (2010). An exploratory study on turnover intention among private sector employees. *International Journal of Business and Management, 5*(8), 57.

29. Ab Rahman, M. (2014). A study of the relationship and influence of personality on job stress among academic administrators at a university. *Procedia-Social and Behavioral Sciences, 114*, 355-359.

30. Patel, C. J., Beekhan, A., Paruk, Z., & Ramgoon, S. (2008). Work-family conflict, job satisfaction and spousal support: An exploratory study of nurses' experience. *Curatorionis, 31*(1), 38-44.

31. Grzywacz, J. G., Frone, M. R., Brewer, C. S., & Kovner, C. T. (2006). Quantifying work–family conflict among registered nurses. *Research in nursing & health, 29*(5), 414-426.

32. Leineweber, C., Westerlund, H., Chungkham, H. S., Lindqvist, R., Runesdotter, S., & Tishelman, C. (2014). Nurses' practice environment and work-family conflict in relation to burn out: a multilevel modelling approach. *PLoS One, 9*(5).

33. Ahmad, A., & Omar, Z. (2013). Informal workplace family support and turnover intention: Testing a mediation model. *Social Behavior and Personality, 41*(4), 555