

# Work-Family Conflict and Mental Emotional Disorder in Female Nurses at National Referral Hospital in Jakarta

Dewi Yunia Fitriani, Dewi Sumaryani Soemarko, Indra Hardjono,  
Astrid Sulistomo, Aria Kekalih

*Department of Community Medicine, Faculty of Medicine, Universitas Indonesia, Jakarta*

## **Abstract**

**Introduction:** Emotional mental disorder (EMD) is a state of psychological distress that, if not handled properly, can lead to severe mental disorders. One potential psychosocial hazard that is thought to be related to mental health disorders is work-family conflict (WFC). The issue of family-work balance has become an important issue among Indonesian female workers, especially with the rapidly growing female worker society and the strong family culture. This study aimed to identify the association between work-family conflict and emotional mental disorder in female nurses.

**Methods:** This cross-sectional study included 264 female nurses who work at national referral general hospital in Jakarta. Their emotional mental disorder was measured using Self-Reported Questionnaire 20 (SRQ-20) and the work-family conflict was measured using the Work-Family Conflict Scale (WCFS).

**Results:** The prevalence of emotional mental disorder in female nurses was 23.5%. The most dominant factor associated with emotional mental disorder is work-family conflict (OR 2,40, CI 95% 1,32-4,35,  $p=0,004$ ).

**Conclusion:** There is a significant association between work-family conflicts and emotional mental disorders in female nurses in Indonesia. Nurses with work-family conflicts are more likely to have emotional mental disorders. Regular mental health checks and counseling should be performed along with periodic health checks.

**Keywords:** Mental Health, Work-life Balance, Female Workers

## **Konflik Pekerjaan-Keluarga dan Gangguan Mental Emosional pada Perawat Perempuan di Rumah Sakit Rujukan Nasional di Jakarta**

Dewi Yunia Fitriani, Dewi Sumaryani Soemarmo, Indra Hardjono, Astrid Sulistomo, Aria Kekalih

Departemen Ilmu Kedokteran Komunitas, Fakultas Kedokteran, Universitas Indonesia, Jakarta

### **Abstrak**

**Pendahuluan:** Gangguan mental emosional adalah keadaan stress psikologis yang jika tidak ditangani dengan baik, dapat menyebabkan gangguan jiwa berat. Salah satu bahaya potensial psikososial yang diduga berhubungan dengan gangguan kesehatan mental adalah konflik pekerjaan-keluarga. Masalah konflik pekerjaan-keluarga menjadi isu penting pada pekerja perempuan Indonesia, terutama dengan semakin banyaknya jumlah pekerja perempuan dan budaya keluarga yang kuat. Penelitian ini bertujuan untuk mengidentifikasi hubungan antara konflik pekerjaan-keluarga dan gangguan mental emosional pada perawat perempuan.

**Metode:** Penelitian potong lintang ini melibatkan 264 perawat perempuan yang bekerja di rumah sakit rujukan nasional di Jakarta. Gangguan mental emosional dinilai secara menggunakan Self-reported Questionnaire (SRQ-20) dan konflik pekerjaan-keluarga dinilai menggunakan Skala Konflik Pekerjaan-Keluarga.

**Hasil:** Prevalensi gangguan mental emosional pada perawat perempuan di rumah sakit rujukan nasional di Jakarta adalah 23,5%. Faktor yang paling dominan terkait dengan gangguan mental emosional adalah konflik pekerjaan-keluarga (OR 2,40, 95% CI 1,32-4,35, p 0,004).

**Kesimpulan:** Terdapat hubungan yang bermakna antara konflik pekerjaan-keluarga dengan gangguan mental emosional pada perawat perempuan di Indonesia. Perawat dengan konflik pekerjaan-keluarga lebih berisiko memiliki gangguan mental emosional. Pemeriksaan dan konseling kesehatan mental harus dilakukan secara teratur bersamaan dengan pemeriksaan kesehatan berkala.

**Kata kunci:** Kesehatan Mental, Kesimbangan Pekerjaan-kehidupan, Pekerja Perempuan

## **Introduction**

Emotional mental disorder (EMD) is a condition that indicate a person is undergoing psychological changes or psychological distress. In contrast to severe mental disorders, such as psychosis and schizophrenia, emotional mental disorders can be experienced by everyone in certain circumstances and can be restored to normal if handled immediately. Emotional mental disorder that is not handled properly can develop into severe mental disorders, therefore it requires attention and further action.<sup>1</sup>

Recent studies show work-family conflict (WFC) is a potential psychosocial hazard often encountered in modern work organizations. It is associated with various negative consequences such as decreased work performance, burn out, absenteeism, and decreased commitment to the organization.<sup>2</sup>

The prevalence of emotional mental disorder in Indonesia based on the 2013 Basic Health Research (RISKESDAS) is 6% or 76,538 household members. The research

showed that emotional mental disorder experienced mostly by women (62,9%), age of 35-64 years (46.8%) and married (66.3%).<sup>3</sup> On the other hand, a meta-analysis of work-family conflicts show that workers who experienced work-family conflicts have a significant association with physical and mental health.<sup>4</sup>

The number of female workers in Indonesia currently tends to increase. For instance, the increase in number of female workers in DKI Jakarta in 2010 was 1.436.699 workers to 1.799.376 in 2015.<sup>5</sup> There are several factors that influence women to work, including the economic needs, psychological factors such as the need for social contact and desires to benefit others. Female workers who are married and live in Indonesian culture still have a major role in managing domestic work, but on the other hand, in work they are still required to work with the same responsibilities as male workers. Roles division as housewives and workers raises problems for female workers in Indonesia, which is potential to create work-family conflicts.<sup>6</sup>

Work-family conflicts also potential

to occur in health care profession especially nurses who are dominantly female. A research in America shows that work-family conflict experienced by nurses is related to depression, poor performance and implications to the incidence of medical errors.<sup>7</sup> Therefore, work-family conflicts among female nurses have a significant potential to decrease quality of care and service.

This study aimed to determine factors associated with emotional mental disorder among female nurses. The factors that included in this study were work-family conflict, individual factors (age, education, marital status, economic status, exercise habit, recreational habit) and occupational factors (working period, working unit and shift work).

## Methods

This cross-sectional study was conducted at national referral general public hospital at Central Jakarta from October to December 2016. The subjects of this study were female nurses who work at the hospital for at least 6 months and had not been diagnosed with mental illness or was in treatment with psychotropic medicine. Subjects were asked to complete an informed consent before participating in the study. The Research Ethics Committee of the Faculty of Medicine, Universitas Indonesia approved this study with the protocol no; 16-10-319 and approval reference no; 856/UN2.F1/ETIK/2016.

The sampling technique used in this study was proportional quota sampling, random samples were taken from each working unit proportionally to the hospital nurses' distribution (inpatient 50%, ambulatory 25%, emergency department 15% and intensive care unit 10%) until the target number of samples was met (the minimal sample size was 246 subjects). For this study, a total of 270 subjects participated. Data was collected during annual medical check-up (MCU) of the hospital workers.

Emotional mental disorder among subjects was identified using Self Reporting Questionnaire-20 (SRQ-20), which has already been validated in Indonesian language. Analysis of SRQ-20 results is done by giving a score of 0 for answer "no" or score 1 for answer "yes" for each question. Emotional mental disorder is diagnosed if the SRQ-20 total score was  $\geq 6$ .<sup>8</sup>

Work-family conflict was identified using the Work-Family Conflict Scale (WFCS) from Carlson, Kacmar and Williams, which also has been validated in Indonesian

language. WFCS consisted of 18 items that assessed six different dimensions of work-family conflict which are time-based work interference with family, time-based family interference with work, strain-based work interference with family, strain-based family interference with work, behaviour-based work interference with family and behaviour-based family interference with work. Each dimension was assessed by three items. A Likert-type scale (1 = strongly disagree to 5 = strongly agree) was used, with the higher scale scores indicating a higher conflict.<sup>9</sup> For this study, the total conflict score was categorized as "yes" and "no" but since the cut-off point for Indonesian working population was not available yet, for each dimension if the respondents circled 4 or 5 twice or more of those 3 items, then the respondent is categorized as having a work-family conflict in that dimension.

Data were analysed using SPSS for Windows (version 20.0), using univariate, bivariate and multivariate analyses. Variables from bivariate analysis that showed a p-value of  $<0.25$  were included for multivariate analysis. Multinomial logistic regression analysis was done to obtain the adjusted odds ratio of determinant factors. The p value that was considered significant was  $<0.05$ .

## Results

From the 270 respondents that has been previously selected only data of 264 were complete and analyzed. The mean age of the respondents was  $35,93 \pm 9,84$  years. Most respondents' marital status were married (70,1%) and most of them had been working in this hospital as a nurse for more than 5 years (72%).

**Table 1. Descriptive Statistic of Investigated Variables**

Variable	n	%
<b>Age</b>		
X $\pm$ SD : 35,93 $\pm$ 9,84		
20-34 year	124	47,0
35-49 year	110	41,7
50-65 year	30	11,4
<b>Education</b>		
Academy	207	78,4
Bachelor	52	19,7
Post-Graduate	5	1,9

**Table 1. Descriptive Statistic of Investigated Variables**

Variable	n	%
<b>Marital Status</b>		
Single	73	27,7
Married	185	70,1
Widowed	6	2,3
<b>Economic Status</b>		
Family income <Rp.7.000.000/mo.	142	53,8
Family income >Rp.7.000.000/mo.	122	46,2
<b>Work Unit</b>		
Emergency Unit	38	15,2
Inpatient Unit	130	49,9
Ambulatory Unit	71	24,8
Intensive Care Unit	25	10,1
<b>Working Period</b> <b>X±SD: 13,5 ± 10</b>		
<5 years	74	28
≥5 years	190	72
<b>Shift Work</b>		
Yes	169	64
No	95	36
<b>Exercise Habits</b>		
≥3 times/week	13	4,9
<3 times/week	251	95,1
<b>Recreational Habit</b>		
≥4 times/mo.	62	23,5
0-3 times/mo.	202	76,5

The prevalence of mental emotional disorders among nurses was 23.5%, with the types of mental emotional disorders most prevalent were somatoform disorder (5.7%) and neurotic disorder (5.3%). The prevalence of work-family conflict was 45.1%, and it was found that the type and direction of work-family conflict most experienced by respondents was time-based conflict (63%) and work interference with family (93.2%), respectively.

It was found that 62.9% of respondents with mental emotional disorders had work-family conflicts. Respondents with work-family conflict tended to experience mental emotional disorders 2.59 times higher than respondents who did not have work-fam-

**Table 2. Types of Emotional Mental Disorders and Work-Family Conflicts**

Variable	n	%
<b>Emotional Mental Disorders</b>		
Yes (SRQ score ≥6)	62	23,5
No (SRQ score <6)	202	27,5
<b>Emotional Mental Disorders</b>		
<i>Depression</i>	6	2,3
<i>Anxiety disorder</i>	7	2,7
<i>Somatoform disorder</i>	15	5,7
<i>Neurotic disorder</i>	14	5,3
<i>Depression &amp; Anxiety disorder</i>	1	0,4
<i>Somatoform &amp; Anxiety disorder</i>	5	1,9
<i>Neurotic &amp; Anxiety disorder</i>	5	1,9
<i>Somatoform &amp; Neurotic disorder</i>	9	3,4
<b>Work-Family Conflict</b>		
Yes	119	45,1
No	145	54,9
<b>Direction of Work-Family Conflict</b>		
<i>Work interference with family</i>	117	98,3
<i>Family interference with work</i>	2	1,7
<b>Types of Work-Family Conflict</b>		
<i>Time-based conflict</i>	75	63,0
<i>Strain-based conflict</i>	5	4,2
<i>Behavior-based conflict</i>	4	3,4
<i>Strain &amp; Behavior-based conflict</i>	2	1,7
<i>Time &amp; Behavior-based conflict</i>	10	8,4
<i>Time &amp; Strain-based conflict</i>	21	17,6
<i>Time, strain &amp; Behavior-based conflict</i>	2	1,7

ily conflict. Mental emotional disorders predominantly experienced by the group of respondents with characteristics of age 35-49 years old (51.6%), diploma educated (71%), married (69.4%), low economic level (51.6%) and working in shift system (66,1%). Statistically, work-family conflict and education are significantly associated to the prevalence of emotional mental disorders.

Finally, the results of the multivariate analyses focused on determinant variables, showed that work-family conflict had significant association with emotional mental disorder with adjusted odd ratio of 2,40, CI95% 1,32-4,35 and p value 0,004.

**Table 3. Bivariate Analysis between Variables and Emotional Mental Disorder**

	Emotional Mental Disorder		OR	CI 95%	p
	(Yes)	(No)			
<b>Work-Family Conflict</b>					
Work-Family Conflict (Yes)	39 (62,9)	80 (39,6)	2,59	1,44-4,65	< 0,001 <sup>cs</sup>
Work Family Conflict (No)	23 (37,1)	122 (60,4)	Ref		
<b>Age</b>					
35-49 tahun	32 (51,6)	78 (38,6)	1,47	0,82-2,67	0,198 <sup>cs</sup>
50-65 tahun	3 (4,8)	27 (13,4)	0,40	0,11-1,42	0,144 <sup>cs</sup>
20-34 tahun	27 (43,5)	97 (48)	Ref		
<b>Education</b>					
Bachelor	14 (22,6)	38 (18,8)	1,37	0,68-2,74	0,457 <sup>f</sup>
Postgraduate	4 (6,5)	1 (0,5)	14,84	1,62-135,95	0,010 <sup>f</sup>
Diploma/Academy	44 (71)	163 (80,7)	Ref		
<b>Marital Status</b>					
Married	43 (69,4)	142 (70,3)	0,93	0,47-1,86	0,928 <sup>f</sup>
Widowed	1 (1,6)	5 (2,5)	0,61	0,01-6,04	>0,999 <sup>f</sup>
Single	18 (29)	55 (27,2)	Ref		
<b>Economy Status</b>					
Family income <Rp.7.000.000/mo.	32 (51,6)	110 (54,5)	0,892	0,51-1,58	0,695 <sup>cs</sup>
Family income ≥Rp.7.000.000/mo.	30 (48,4)	92 (45,5)	Ref		
<b>Exercise Habits</b>					
<3 times/week	3 (4,8)	10 (5)	0,98	0,17-3,96	>0,999 <sup>f</sup>
≥3 times/week	59 (95,2)	192 (95)	Ref		
<b>Recreational Habit</b>					
0-3 times/mo.	15 (24,2)	47 (23,3)	1,05	0,53-1,03	0,870 <sup>cs</sup>
≥4 times/mo.	47 (75,8)	155 (76,7)	Ref		
<b>Shift Work</b>					
Yes	41 (66,1)	128 (63,4)	0,89	0,49-1,61	0,692 <sup>cs</sup>
No	21 (33,9)	74 (36,6)	Ref		
<b>Working Unit</b>					
Emergency Unit	6 (9,7)	32 (15,8)	0,77	0,25-2,16	0,635 <sup>cs</sup>
ICU	6 (9,7)	19 (9,4)	1,23	0,40-3,79	0,650 <sup>cs</sup>
Inpatient Unit	36 (58,1)	94 (46,5)	1,56	0,78-3,21	0,216 <sup>cs</sup>
Ambulatory Unit	14 (22,6)	57 (28,2)	Ref		
<b>Working Period</b>					
≥ 5 years	47 (75,8)	143 (70,8)	1,29	0,67-2,49	0,442 <sup>cs</sup>
< 5 years	15 (24,2)	59 (29,2)	Ref		

cs: chi-square test; f: fisher statistic test

**Table 4. Multivariate Analysis between variables associated with emotional mental disorder with Enter**

Variable	p	aOR	CI 95%
Age	0,586	0,88	0,57-1,38
Education	0,074	1,69	0,95-3,01
Work-Family Conflict	0,004	2,40	1,32-4,35

## Discussion

In this study, the prevalence of emotional mental disorders among female nurses at national referral general hospitals in Jakarta was 23.5%. This prevalence is increased from previous study which was also carried out in the same hospital in 1998 and the prevalence of emotional mental disorders in nurses was 17.7%.<sup>10</sup> This may have happened because the hospital has undergone a change in the system in the past few years, with the enactment of social health insurance (BPJS) and the accreditation of the Joint Committee International (JCI), resulting in changes in work culture accompanied by increased in work demands and workload.

Compared with a study in Brazil by Juliana Petri Tavares in 2012, the prevalence of emotional mental disorders among nurses in referral hospital was 20.1%. This result is not much different from the results obtained in this study. This might be due to the characteristics and location of the workplace in this study which is not much different.<sup>11</sup> In contrast with study in North Carolina United States by Susan Letvak in 2012,<sup>12</sup> the prevalence of mental emotional disorders was 18%. This result is lower than the prevalence in developing countries, perhaps because the United States is a developed country which already has more organized hospital management and a better social support system.

The prevalence of family work conflict in female nurses was 45.11%, with the type and direction of work-family conflict most experienced by respondents was time-based conflict (63%) with the direction of work interference with family (93.2%). This shows the imbalance of time between work and family causing workers to not be able to carry out their role in the family, so it is necessary to evaluate the working hours of nurses. This result is consistent with research conducted by Joseph G. Grzywacz, et al.<sup>13</sup> in 2006 about work-family conflict among nurses in the United States.

There were no individual nor occupational risk factors that show significant association with the prevalence of emotional mental disorders except education factor. It was found that the higher education level, the higher risk to experience emotional mental disorders and this result was statistically significant. It may be due to the culture in Indonesia, where people with higher the education will come with higher demands from family and work.

Respondents who experienced the

most emotional mental disorders were nurses with age category 35-49 years (51.6%). This is in accordance with research conducted by Lachman in 2004 stating that in this age period, there is a vulnerability for imbalance between work and relationship amid physical and psychological changes that occur along with the aging process.

This period of late adulthood is when there are changes in the form of greying hair, decrease energy, developing of degenerative diseases such as high blood pressure or metabolic disorders, and vulnerable to psychological changes or so-called midlife crisis. From career perspective, people with age between 35-49 have reached their career establishment phase and lead to career growth, where they will have a higher workload and responsibility, so that they tend to concentrate on work and cause internal conflicts (mental emotional disorders) because there is a lack of balance with the demands and duties for the family.<sup>14</sup>

Bivariate analysis between family work conflicts with emotional mental disorders showed that the respondents who experienced emotional mental disorders were respondents who had work-family conflicts (62.9%) with OR 2.59, 95% CI 1.44-4.65,  $p < 0.001$ . This shows that nurses who have work-family conflict have a 2,59 times higher risk of experiencing emotional mental disorders compared to nurses who do not. This result is consistent with the results of a meta-analysis of the effects of work-family conflicts. Work-family conflict is considered as a potential source of stress that has a negative effect on workers such as psychological stress/strain, somatic complaints and depression.<sup>4</sup>

Researchers are well aware that this research has several weaknesses, namely the cross-sectional study design, so the results obtained are only a momentary description by considering factors that exist at the same time and cannot assess conditions before the study and are not followed by the continuation of the conditions of respondents.

## Conclusion

In conclusion, this study demonstrates that there is a significant association between work-family conflicts and emotional mental disorders among female nurses. Individual factor found to be statistically significant related to emotional mental disorders is education factor, while occupational factors were not found to be significantly associated. Regular mental health checks and counsel-

ing should be performed along with periodic health checks up and further research is needed to find the risk factors for work-family conflict among female nurses so that work-family conflict can be prevented.

### Conflicts of Interest

All contributing authors declare no conflict of interest.

### Funding Sources

The authors received no financial support for the research, authorship, and/or publication of this article.

### Acknowledgment

This research would not have been possible without the exceptional support of head of Occupational Medicine Division, dr. Muchtarudin Mansyur, MS, SpOk, PhD and head of Occupational Medicine Specialist Program, dr. Nuri Purwito Adi, MSc, MKK, Sp.OK.

### References

1. Idaiani S, Suhardi KAY, Kristanto AY. Analisis gejala gangguan mental emosional penduduk Indonesia. *J Indon Med Assoc.* 2009;59(10):473-9.
2. Grant-Vallone EJ, Donaldson SI. Consequences of work-family conflict on employee well-being over time. *Work Stress.* 2001 Jul 1;15(3):214-26.
3. Badan Penelitian dan Pengembangan Kesehatan Departemen Kesehatan Republik Indonesia. Laporan hasil riset kesehatan dasar (Riskesdas) 2013. Jakarta: Departemen Kesehatan Republik Indonesia; 2013.
4. Amstad FT, Meier LL, Fasel U, Elfering A, Semmer NK. A meta-analysis of work-family conflict and various outcomes with a special emphasis on cross-domain versus matching-domain relations. *J Occup Health Psychol.* 2011 Apr;16(2):151-69.
5. Badan Pusat Statistik Provinsi DKI Jakarta. Jumlah Penduduk Berumur 15 Tahun Keatas Menurut Jenis Kegiatan Selama Seminggu yang Lalu dan Jenis Kelamin di Provinsi DKI Jakarta, 2015[Internet]. Jakarta: Badan Pusat Statistik; 2017 [updated 2015; cited 2016 Des 23]. Available from: <https://jakarta.bps.go.id/subject/6/tenaga-kerja.html#subjekViewTab3>
6. Mufida A. The relationship between work-family conflict and psychological well-being on working mother [thesis]. Depok: Universitas Indonesia; 2008.
7. Noor NM. Work-family conflict, work- and family-role salience, and women's well-being. *J Soc Psychol.* 2004 Aug;144(4):389-405.
8. Beusenbergh M, Orley JH. A user's guide to the Self-Reporting Questionnaire (SRQ). Geneva: Division of Mental Health, World Health Organisation; 1994.
9. Carlson DS, Kacmar KM, Williams LJ. Construction and initial validation of a multidimensional measure of work-family conflict. *J Vocat Behav.* 2000 Apr 1;56(2):249-76.
10. Suwarni E. Analisis hubungan antara stresor kerja dengan gangguan mental emosional perawat wanita di Rumah Sakit Umum Pusat Nasional Dr. Cipto Mangunkusumo Jakarta [thesis]. Jakarta: Universitas Indonesia; 1998.
11. Tavares JP, Beck CLC, Magnago TSB de S, Zanini RR, Lautert L. Minor psychiatric disorders among nurses university faculties. *Rev Lat Am Enfermagem.* 2012 Feb;20(1):175-82.
12. Letvak S, Ruhm CJ, McCoy T. Depression in hospital-employed nurses. *Clin Nurse Spec.* 2012 Jun;26(3):177-82.
13. Grzywacz JG, Frone MR, Brewer CS, Kovner CT. Quantifying work-family conflict among registered nurses. *Res Nurs Health.* 2006 Oct;29(5):414-26.
14. Lachman ME. Development in midlife. *Annu Rev Psychol.* 2004;55:305-31.

