Andriani DA, et al. Belitung Nursing Journal. 2017 October;3(5):577-584
Received: 31 July 2017 | Revised: 3 August 2017 | Accepted: 2 September 2017
http://belitungraya.org/BRP/index.php/bnj/

ORIGINAL RESEARCH **ISSN: 2477-4073**

FACTORS RELATED TO NURSE'S COMPASSION SATISFACTION, BURNOUT, AND SECONDARY TRAUMATIC STRESS IN PEDIATRIC CARE UNIT RSUP DR. SARDJITO YOGYAKARTA

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ABSTRACT

Background: Pediatric nurses are susceptive with stress related to their work. It happens because they take care children who experience the disease and emotional and psychological pressure, so it can make the risk of negative symptoms related with compassion satisfaction, burnout, secondary traumatic stress. Compassion satisfaction, burnout, secondary traumatic stress has an impact not only for them, but also for the quality of treatment.

Objective: To identify related factors to nurse's compassion satisfaction, burnout, and secondary traumatic stress in pediatric care unit.

Methods: This study was a descriptive analytic study with cross sectional design. The sample of this study was 107 pediatric nurses of RSUP Dr. Sardjito Yogyakarta Indonesia. The sampling techniques used proportional random sampling. The data were collected from February-March 2017 using the professional quality of life questionnaire fifth version. The data were analyzed using Chi-square, Mann-Whitney, and ordinal regression.

Results: 44.9% nurses had a moderate compassion satisfaction, 52.3% nurses had a moderate burnout, and 43% had a moderate secondary traumatic stress. The work unit had $p < 0.05$ and β value 0.945, indicated that the work unit had a significant correlation to the secondary traumatic stress. Age, work position, sex, marital status, interpersonal relationships with colleagues and supervisor, pay satisfaction, and average working hours had $p > 0.05$, which indicated that these factors had no correlation to compassion satisfaction, burnout, secondary traumatic stress.

Conclusion: The work unit was the only related factor to the nurse's secondary traumatic stress in the pediatric care unit and there were no factors related to compassion satisfaction and burnout.

Keywords: compassion satisfaction, burnout, secondary traumatic stress, pediatric nurse, work unit

INTRODUCTION

Professional quality of life is quality of one's feelings related to their work as a good helper. Positive aspect of professional quality of life is called compassion satisfaction (CS) and negative aspect is called compassion fatigue (CF), which includes burnout (BO) and secondary traumatic stress (STS). The picture of professional quality of life on nurses can be seen by assessing aspects of professional quality of life is CS, BO, and STS.[1]

Nurses in pediatric care unit are at high risk for STS and BO compared to nurses in internal medicine unit and in surgical room.[2] Study of 239 pediatric nurses in five hospitals in state of America showed 27.6% of pediatric care nurses felt high levels of CS, 29.3% of pediatric care nurses had high BO levels and 27.2% nurses had STS.[3]

Nurses who provide care to children are at risk for CF because of their routine exposure to traumatic aspects of childhood illness or death, medical treatment or errors, as well as the family's emotional response to childhood illness.[3] Pediatric nurses often receives pressure from parents due to emotional burden of family, causing a sense of stress on pediatric nurse.[2]

Factors affecting CS, BO, and STS include personal factors (age, gender, marital status, length of work, job position) and institutional factors (work units, average hours of work in the day, satisfaction on salary, and relationships with coworkers and employers in the work environment).[2-7] Compassion satisfaction, burnout, and secondary traumatic stress experienced by nurses have an impact not only on their own, but will also have an impact on gave the quality of care.[8] The purpose of this research is to know the factors related to CS, BO, and STS to nurse in the pediatric care unit.

METHODS

Design

The study design was descriptive and analytic with cross-sectional design conducted in pediatric care unit of RSUP Dr. Sardjito Yogyakarta, Indonesia for 12 days during February-March 2017. Independent variables included age, gender, marital status, length of work, job position, satisfaction of salary, interpersonal relationships with co-workers, interpersonal relationships with supervisors, work units, average hours of work in a day. Dependent variable was CS, BO, and STS. Study hypothesis was age, sex, marital status, length of work, job position, satisfaction of salary, interpersonal relationship with colleagues, interpersonal relationship with supervisor, work unit, average hours of work in a day had significant relationship with CS, BO, and STS.

Sample

The number of samples was 107 nurses selected by proportional random sampling technique. Inclusion criteria were nurses who were willing to be respondents and worked in the unit at the time of study lasting at least 3 months. Exclusion criteria were nursing staff or not working full-time in the current work unit in the

last 1 month of study time and nurses who were currently continuing education.

Measurement

This study used a questionnaire of respondents data covering age, gender, marital status, work period, job position, satisfaction of salary, interpersonal relationship with co-worker, interpersonal relationship with supervisor, work unit, average hours of work in a day and professional quality of life questionnaire version 5, which has been translated into Indonesian language. Professional quality of life questionnaire has a Cronbach alpha value of 0.882 for CS, 0.798 for BO, and 0.809 for STS.

Ethical Consideration

This study has received the approval of the ethics committee of the Medical and Health Research Ethics Committee (MHREC) Faculty of Medicine Universitas Gadjah Mada, RSUP Dr. Sardjito. Respondents filled in questionnaires accompanied by a researcher or research assistant. The data collection process took approximately 15 minutes for each respondent.

Data Analysis

Chi-square test was used to determine the relationship between age, length of work, interpersonal relationships with colleagues, interpersonal relationship with supervisor, satisfaction of salary, work unit, and average working hours with CS, BO, STS. Mann-Whitney test was used to determine the relationship of gender, marital status, and job positions with CS, BO, and STS. Multivariate test of ordinal regression was used to know the relationship of several factors simultaneously.

RESULTS

The frequency distribution of research variables is described in Table 1- Table 3.

Table 1 Frequency distribution of nurses based on age, gender, marital status, length of work, and job position (N= 107)

Characteristic	Frequency (n)	Percentage (%)
Age		
> 40 years old	30	28
18-40 years old	77	72
Gender		
Woman	102	95.3
Man	5	4.7
Marital Status		
Married	14	13.1
Single	93	86.9
Length of work		
>10 years	50	46.7
≤10 years	57	53.3
Job position		
Head Nurse	6	5.6
Educator nurse	3	2.8
General Nurse	98	91.6

Table 2 Frequency distribution of nurses based on satisfaction of salary, interpersonal relationship with co-worker and supervisor, work unit and average hours of work (N =107)

Characteristics	Frequency (n)	Percentage (%)
Satisfaction of salary		
Satisfied	42	39.3
Quite satisfied	60	56.1
Less satisfied	5	4.7
Interpersonal relationship with co-workers		
Good	65	60.7
Average	42	39.3
Bad	0	0
Interpersonal relationship with supervisor		
Good	57	53.3
Average	50	46.7
Bad	0	0
Work unit		
Inpatient room	64	59.8
Intensive pediatric	15	14
Intensive neonatal and perinatal	28	26.2
Average hours of work in a day		
≤8 hours	47	43.9
>8 hours	60	56.1

Table 3 Nurse's compassion satisfaction, burnout, and secondary traumatic stress (N= 107)

Aspect	Low (t score ≥ 57)		Medium (t score 44-56)		High (t score ≤ 43)	
	N	%	N	%	n	%
CS	29	27.1	48	44.9	30	28.0
BO	23	21.5	56	52.3	28	26.2
STS	37	34.6	46	43.0	24	22.4

Tables 1 and 2 showed respondents were mostly aged 18-40 years (72%), female (95.3%), married (86.9%), length of work <10 years (53.3%), As a general nurse (91.6%), quite satisfied for salary (56.1%), had good interpersonal relationships with co-workers (60.7%), and with supervisor (53.3%), (59.8%), and work on average more than 8 hours a day (56.1%). Table 3 shows majority of respondents perceived CS in medium level (44.9%), BO in medium level (52.3%), and medium STS (43%).

Table 4 The results of chi-square test of factors related to the nurse's CS, BO, and STS (N=107)

Variable	CS			p	BO			p	STS			p
	High n(%)	Medium n(%)	Low n(%)		Low n(%)	Medium n(%)	High n(%)		Low n(%)	Medium n(%)	High n(%)	
Age												
>40 years	10 (9.3)	16 (15)	4 (3.7)	0.099	11 (10.3)	14 (13.1)	5 (4.7)	0.021*	14 (13.1)	10 (9.3)	6 (5.6)	0.211
18-40 years	20 (18.7)	32 (29.9)	25 (23.4)		12 (11.2)	42 (39.3)	23 (21.5)		23 (21.5)	36 (33.6)	18 (16.8)	

Variable	CS			p	BO			p	STS			p
	High	Medium	Low		Low	Medium	High		Low	Medium	High	
	n(%)	n(%)	n(%)		n(%)	n(%)	n(%)		n(%)	n(%)	n(%)	
Work Period												
>10 years	16 (15)	23 (21.5)	11 (10.3)	0.239	12 (11.2)	30 (28)	8 (7.5)	0.076	21 (19.6)	18 (16.8)	11 (10.3)	0.310
0-10 years	14 (13.1)	25 (23.4)	18 (16.8)		11 (10.3)	26 (24.3)	20 (18.7)		16 (15)	28 (26,2)	13 (12.1)	
Satisfaction of salary												
Satisfaction	17 (15.9)	12 (11.2)	13 (12.1)	0.338	12 (11.2)	18 (16.8)	12 (11.2)	0.574	13 (12.1)	19 (17.8)	10 (9.3)	0.578
Quite + Less Satisfaction	13 (12.1)	36 (33.6)	16 (15)		11 (10.3)	38 (35.5)	16 (15.7)		24 (22.4)	27 (25.2)	14 (13.1)	
Interpersonal Relationship with co-workers												
Good	21 (19.6)	27 (25.2)	17 (15.9)	0.368	14 (13.1)	32 (29.9)	19 (17.8)	0.574	24 (22.4)	27 (25.2)	14 (13.1)	0.578
Average	9 (8.4)	21 (19.6)	12 (11.2)		9 (8.4)	24 (22.4)	9 (8.4)		13 (12.1)	19 (17.8)	10 (9.3)	
Interpersonal Relationship with Supervisor												
Good	19 (17.8)	22 (20.6)	16 (15)	0.522	13 (12.1)	30 (28)	14 (13.1)	0.641	19 (17.8)	27 (15.2)	11 (1.3)	0.781
Average	11 (10.3)	26 (24.3)	13 (12.1)		10 (9.3)	26 (24.3)	14 (13.1)		18 (16.8)	19 (17.8)	13 (12,1)	
Work Unit												
Inpatient	17 (15.9)	29 (27.1)	18 (16.9)	0.673	10 (9.3)	22 (20.6)	11 (10.3)	0.774	21 (19.6)	16 (15)	6 (5.6)	0.01*
Pediatric and neonatal intensive	13 (12.1)	19 (17.8)	11 (10.3)		13 (12.1)	34 (31.8)	17 (15.9)		16 (15)	30 (28)	18 (16,8)	
Average hours of work												
≤8 hours	11 (10.3)	21 (19.6)	15 (14)	0.246	7 (6.5)	30 (28)	10 (9.3)	0.821	16 (15)	22 (20.6)	9 (8.4)	0.737
>8 hours	19 (17.8)	27 (25.2)	14 (13.1)		16 (15)	26 (24.3)	18 (16.8)		21 (19.6)	24 (22.4)	15 (14)	

*: Significant with $p < 0.05$

Table 5 Mann-Whitney test results of factors related with nurses CS, BO, and STS (N=107)

Variable	CS			p	BO			p	STS			p
	High	Medium	Low		Low	Medium	High		Low	Medium	High	
	n(%)	n(%)	n(%)		n(%)	n(%)	n(%)		n(%)	n(%)	n(%)	
Gender												
Woman	29 (27.1)	47 (43.9)	26 (24.3)	0.211	22 (20.6)	55 (51.4)	25 (23.4)	0.230	36 (33.6)	43 (40.2)	23 (21.5)	0.680
Man	1 (0,9)	1 (0,9)	3 (2,8)		1 (0.9)	1 (0.9)	3 (2.8)		1 (0,9)	3 (2,8)	1 (0,9)	
Marital status												
Married	28 (26.2)	41 (38.3)	24 (22.4)	0.228	20 (18.7)	48 (44.9)	25 (23.4)	0.780	34 (31.8)	37 (34.6)	22 (20.6)	0.717
Single	2 (1.9)	7 (6.5)	5 (4.7)		3 (2.8)	8 (7.5)	3 (2.8)		3 (2.8)	9 (8.4)	2 (1.9)	
Job Position												
Head nurse	5	4	0	0.022*	3	5	1	0.222	5	2	2	0.341
Educator nurse	(4.7)	(3.7)	(0)		(2.8)	(4.7)	(0.9)		(4.7)	(1.9)	(1.9)	
General nurse	25 (23.4)	44 (41.1)	29 (27.1)		20 (18.7)	51 (47.7)	27 (25.2)		32 (29.9)	44 (41.1)	22 (20.6)	

*: Significant with $p<0.05$

Tables 4 and 5 show that a job position was associated with CS, age was associated with BO, and work units was associated with STS. Besides, the variables included in the ordinal regression test with $p < 0.25$ as 6 factors on CS, 4 factors on the BO, and 2 factors on STS.

Table 6 Multivariate analysis of factors related to the nurse's compassion satisfaction (N=107)

Variables	Coefficient	S.E	Wald	Df	p-value	IK 95%	
						Min	Max
Age	0.172	0.566	0.092	1	0.761	1.281	-0.937
Gender	1.015	0.933	1.184	1	0.277	2.843	-0.813
Marital status	0.579	0.574	1.017	1	0.313	1.704	-0.546
Job position	1.246	0.796	2.450	1	0.118	2.806	-0.314
Work period	-0.001	0.483	0.000	1	0.999	0.946	-0.947
Average hours of work	-0.229	0.376	0.371	1	0.542	0.508	-0.967

Table 7 Multivariate analysis of factors related to the nurse's burnout (N=107)

Variables	Coefficient	S.E	Wald	Df	p-value	IK 95%	
						Min	Max
Age	0.726	0.583	1.548	1	0.213	1.869	-0.418
Gender	1.084	0.913	1.408	1	0.235	2.874	-0.706
Job position	0.019	0.763	0.001	1	0.980	1.514	-1.476
Work period	0.324	0.480	0.457	1	0.499	1.264	-0.616

Table 8 Multivariate analysis of factors related to the nurse's secondary traumatic stress (N=107)

Variables	Coefficient	S.E	Wald	Df	p-value	CI 95%		*Pseudo R-square value*
						Min	Max	
Age	0.406	0.415	0.957	1	0.328	1.218	-0.407	0.082
Work unit	0.945	0.385	6.007	1	0.014*	1.700	0.189	

*Significant with p<0.05

Tables 6 and 7 show that there were no factors related to the professional quality of life on CS and BO aspects, while table 8 shows that the work unit was the only factor related to the secondary traumatic stress with a coefficient of 0.945 (Wald value > 3.84, p <0.05).

DISCUSSION

In the STS aspect, work unit is a significant correlation factor. This result was supported by previous research which showed a relationship between the work unit and STS.[2,9] Work unit of nursing described work situation in each unit. Working with patients suffering from pain, hardship, and facing end of life influenced to physical and mental health of nurses.[10] Sensitivity to sick children causes more care than child care and trigger the possibility of natural consequences of caring for others, so nurses in the childcare ward has a risk to experience STS.[3] Such a sense can occur especially if their patient has the same age or gender as their child.[9] This is supported by the characteristics of respondents who are mostly female with marital status, so it can be concluded is one of the causes of nurses in the ward care of children at risk also experienced STS.

Nurses in the inpatient unit interact more emotionally with patients than the nurses in intensive care. Nurses in the inpatient ward are more likely to have interpersonal contact with patients. Bush stated that the number of interpersonal contacts with patients owned by nurses could blur the emotional boundaries, so STS can appear. This can be because the frequent nurses enter the lives of others and not just be observers in the course of patient health.[11]

Nurses working in intensive child wards are constantly exposed to trauma, death, and sense of mourning.[9] In addition, intensive room conditions cause the family of pediatric patients cannot always be around the child, so the family can also experience stress. Nurses in the intensive room not only give attention to the pediatric patient, but also to the family. Routine exposure to traumatic aspects of childhood injury, disease or death, medical treatment, and family emotional responses can lead to stressful nurses.[2] This can lead to nurses in child-intensive units and neonatal in RSUP Dr. Sardjito experienced STS.

The results of this study are supported by previous research which states that there is no relationship between gender and CS.[12] Female gender is known to have more satisfaction with the work done than male.[3] In this study, majority female respondents are in the medium CS category, whereas majority males are in the low-level CS category. This means that female respondents in this study are known to have more satisfaction with their work. There was no significant relationship between sex and CS in this study could be due to the small number of male respondents.

This study shows that there is no significant relationship between age with CS, BO, and STS. The results of this study are supported by previous research, which states that age is not related to CS, BO, and STS.[3,6,13] From this study known to respondents aged 18-40 years majority are in medium category BO. Young age is associated with the possibility of many roles and responsibilities thereby contributing to fatigue and cause a person to become less productive.[7]

LIMITATIONS

Limitations in this study include assessment of satisfaction with salary, interpersonal relationships with colleagues and had not been assessed using instruments that measure it. In addition, the proportion of sample distribution on gender variables, job positions, and marital status was uneven.

CONCLUSION

Majority nurses in children care ward of RSUP Dr. Sardjito had a medium-level of compassion satisfaction, burnout, and secondary traumatic stress. Work unit was the only factor related to nurse's secondary traumatic stress and there were no factors related to burnout and compassion satisfaction.

Declaration of Conflicting Interest
None declared.

Funding
This study was supported by Master Program in Nursing, Faculty of Medicine, Universitas Gadjah Mada, Indonesia.

Authorship Contribution
All authors have equal contribution in this study.

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Cite this article as: Andriani DA, Rustiyaningsih A, Haryanti F. Factors related to nurse's compassion satisfaction, burnout, and secondary traumatic stress in Pediatric Care Unit RSUP Dr. Sardjito Yogyakarta. *Belitung Nursing Journal.* 2017;3(5):577-584. https://doi.org/10.33546/bnj.135