ORIGINAL RESEARCH

Med J SDU / SDÜ Tıp Fak Derg ▸ 2024:31(2):179-185 doi: 10.17343/sdutfd.1452857

Compassion Fatigue in Pediatric Nurses and Affecting Factors

Halil İbrahim TAŞDEMİR[1]

[1] Burdur Mehmet Akif Ersoy University, Bucak School of Health, Department of Child Health and Diseases Nursing, Burdur, TÜRKİYE

Cite this article as: Taşdemir Hİ. Compassion Fatigue in Pediatric Nurses and Affecting Factors. Med J SDU 2024; 31(2): 179-185.

Abstract

Objective

This study aimed to explore the factors influencing the development of compassion fatigue in pediatric nurses, focusing on socio-demographic factors such as age, type of clinic, duration of employment, and type of hospital.

Material and Method

A descriptive cross-sectional study was conducted with 108 pediatric nurses from state and university hospitals in Antalya and Burdur, Türkiye. Data were collected using an online survey that included questions on work schedule, job satisfaction, impact of patient condition on job, and work approach. Compassion fatigue was measured using the Professional Quality of Life scale. Statistical analysis was performed using SPSS version 23.0.

Results

Age, type of clinic, duration of employment, and type of hospital were significantly associated with varying levels of compassion fatigue among pediatric nurses. Nurses with 1-5 years of experience had significantly different compassion fatigue levels compared to those with 6-10 years of experience. However, no significant relationship was found between compassion fatigue scores and work shift or marital status. Nearly all nurses (99.3%) experienced low to moderate levels of compassion fatigue.

Conclusion

This study highlights the importance of considering socio-demographic factors in addressing compassion fatigue among pediatric nurses. By understanding these factors, healthcare institutions can develop targeted interventions to support nurses and improve patient care quality.

Keywords: Compassion fatigue, patient care, pediatric nursing, well-being

Introduction

Pediatric nursing is a profession characterized by intense emotional involvement, as nurses care for vulnerable and often critically ill children and their families. This emotional labor, while rewarding, can also exact a toll on nurses' well-being, leading to the phenomenon known as compassion fatigue (1). Compassion fatigue (CF) refers to the gradual decline in empathy and emotional strength that can happen

Corresponding Author and Contact Address: H.İ.T. /dibrahimtasdemir@gmail.com
Application Date: 14.03.2024• Accepted Date: 03.06.2024
ORCID IDs of the Authors: H.İ.T: 0000-0001-9893-356X

when individuals are consistently exposed to suffering and trauma in their professional roles. (2).

Lately, recognition has been increasing recognition of prevalence, impact of CF among healthcare professionals, including pediatric nurses. Research suggests that pediatric nurses may be particularly susceptible to CF due to the inherently challenging nature of their work, which frequently involves witnessing the suffering of young patients and their families (3,4). Moreover, pediatric nurses often face unique stressors, such as caring for children with life-threatening illnesses, navigating complex family dynamics, and coping with ethical dilemmas surrounding end-of-life care (5,6).

Several factors have been identified as potential contributors to CF in pediatric nurses. High workload, long hours, and inadequate staffing levels have been consistently linked to increased levels of burnout and emotional exhaustion among healthcare professionals (5,7,8). Additionally, factors such as lack of organizational support, limited opportunities for professional development, and exposure to traumatic events can further exacerbate nurses' risk of developing CF (6,9).

Despite growing awareness of the importance of addressing CF in pediatric nursing, there remains a need for further research to better understand its prevalence, risk factors, and impact on nurses' well-being and patient care outcomes. By identifying the factors contributing to CF in pediatric nurses, healthcare organizations can implement targeted interventions to support nurses and mitigate the negative effects of CF on both individual nurses and the quality of patient care (3,10).

This study aims to subscribe to the existing literature on CF in pediatric nursing by exploring the factors that impact its development. By gaining a deeper understanding of CF and its affecting factors in the context of pediatric nursing, this research seeks to inform the development of evidence-based interventions to support the well-being of pediatric nurses and optimize patient care outcomes.

Material and Method

Study Design

This descriptive cross-sectional study was carried out within state and university hospitals located in the Antalya and Burdur provinces, involving pediatric nursing staff.

Participant and Sample Size

A known population sampling approach was employed, encompassing four state hospitals and one university hospital in Turkey. The study population consisted of 198 nurses employed in pediatric services across state and university hospitals located in Antalya and Burdur. The patient-to-nurse ratios were 1:10 in state hospitals and 1:7 in the university hospital. The sample size calculation was recalculated with a 95% confidence interval, resulting in a sample size of 131 (calculated using Open Epi program version 3). Out of the calculated sample size, 108 nurses voluntarily participated in the research, representing an 82.4% response rate, which can be considered sufficient to represent the population. The sample selection process was not based on convenience sampling; rather, it followed a known population sampling approach to ensure a representative sample of nurses from the target population.

Data Collection Procedures and Tools

In the wake of providing a clear explanation of the research's objectives and methodologies, data were gathered from consenting nurses via an online survey. On average, each participant spent approximately 15 minutes completing the survey.

The Participant Information Inventory

This study utilized a survey comprising 17 questions across various categories, including work schedule, job satisfaction, impact of patient condition on job, and work approach. While creating these questions, a study in the literature was taken as a basis (11).

Compassion Fatigue

The Professional Quality of Life was used to measure compassion fatigue. This scale is a 30-item self-report tool consisting of three distinct subscales. Participants rate the frequency of experiencing each item over the past 30 days on a 5-point Likert scale (ranging from 1 = never to 5 = very often). Subscale scores are obtained by summing the responses for each 10-item subscale. Stamm (12) categorized CF scores as low (22 points and below), moderate (23–41), or high (42 points and above). Scores range from 0 to 50, with higher scores indicating greater levels of Burnout and CF (12). Employees with elevated scores are advised to seek support (13). Cronbach's alphas for the subscales are declared as 0.81 for CF (12). The Turkey version also demonstrated good internal consistency ($\alpha = 0.80$). In this study, Cronbach's alpha for CF was 0.81.

Statistical Analysis

The data underwent analysis using the SPSS version 23.0 software. Descriptive statistics, encompassing

numbers and percentages, were employed to provide an overview of the data. For a more nuanced examination, non-parametric tests were utilized. Analyzed using the Mann–Whitney U-test, Kruskal–Wallis. These statistical approaches are well-suited for analyzing data that may not meet the assumptions of parametric tests. Due to the violation of the assumption of homogeneity, the Games-Howell post-hoc analysis was employed as a corrective measure, rather than using the Bonferroni correction. A significance level of $p<0.05$ was employed to ascertain statistical significance, ensuring a rigorous scrutiny of the results.

Results

The research analyzed data from 108 participants. Of the participants, 75.9% were female, 57.4% were Bachelor's degree, 36.1% were single, 55.1% of the married participants did not have children, 48.1% were employed at university hospitals, and 16.7% were employed at private hospitals. 35.2% of the participants had 1-5 years of work experience, and 13.0% consisted of those who only worked day shifts. 60.2% of the participants reported considering leaving their jobs. 42.6% of the participants worked in general pediatric clinics. The comparison of the mean scores of CF of the participating nurses with their socio-demographic characteristics is shown in Table 1.

When examining the CF levels concerning participants' socio-demographic variables, considerable differentiations emerged in CF concerning participants' age, type of clinic they worked in, duration of employment, condition, and place they worked (Table 2). Regarding nurses' levels of CF by age, advanced analysis following the categorization revealed significant differences between the three age groups ($p < 0.001$). There were statistically significant differences

Table 1 Comparison of compassion fatigue score averages according to participant variables (n = 108)

Variables	n	%	X ± SD	Median (min-max)	Test Value	p	Post hoc test*
Gender							
Male	26	24.1	22.44 ± 6.38	26(11-44)	2241.5	0.014	
Female	82	75.9	26.51 ± 8.25	28 (10-43)			
Age (years)							
20-24[a]	41	38.0	18.06 ± 7.62	21(15-38)	31.659	<0.001	c>a,b*
25-30[b]	38	35.2	23.51 ± 7.44	24(10-45)			
31 or older[c]	29	26.8	27.40 ± 6.58	27(9-41)			
Education							
High school[a]	31	28.7	25.43 ± 8.64	23(15-48)	5.165	0.032	a>b>c*
Bachelor's degree[b]	62	57.4	23.09 ± 8.14	20(10-39)			
Postgraduate degree[c]	15	13.9	20.08 ± 6.27	21(12-42)			
Marital status							
Married	69	63.9	23.66 ± 8.10	22(10-43)	6215.3	0.094	
Single	39	36.1	24.72 ± 8.21	23(14-36)			
Having children							
Yes	31	44.9	25.20 ± 6.74	28(8-45)	7258.1	<0.001	
No	38	55.1	20.14 ± 7.68	21(11-44)			
Total							
	108	100.0	26.38 ± 8.91	27(8-48)			

X= Mean, SD: Standart Deviation, * Games-Howell Post Hoc Correction

among other age groups (p < 0.05). Advanced analyses were conducted to identify the specific years that contributed to differences in the age-based assessment of nurses. The Games-Howell correction was applied due to the data's non-normal distribution. To adjust for multiple comparisons, a new significance level was computed by dividing the original level by 3, reflecting the three comparisons in the advanced analysis (0.05/3 = 0.017). The results indicated significant differences between individuals aged 20–24 years and those aged 25–30 years (p < 0.001), as well as between individuals aged 20–24 years and those aged 31 years or older (p < 0.001). No statistically significant differences were found among the aged 25–23 years and those aged 31 years or older (p > 0.024).

It was found that the duration of employment significantly influenced the level of CF among nurses. Advanced analysis was performed to find out which one this statistical difference occurred. The Games-Howell correction was applied due to the data's non-normal distribution. To adjust for multiple comparisons, a new significance level was computed by dividing the original level by 6, reflecting the three comparisons in the advanced analysis (0.05/6 = 0.008). The results showed that individuals with less than one year of working experience had statistically significantly lower compassion fatigue (p<0.001). It was determined that nurses with 6-10 years of working experience had a statistically significantly higher level of compassion fatigue than other groups (p<0.001). It was found that there was no difference in terms of compassion

Table 2 Comparison of participant variables and compassion fatigue scores

Variables	n	%	X ± SD	Median (min-max)	Test Value	p	Post hoc test*
Hospital Type							
Public Hospital[a]	38	35.2	25.41 ± 7.15	26 (11-48)	6879.2	0.001	a>b,c*
University Hospital[b]	52	48.1	21.18 ± 8.34	23 (14-40)			
Private Hospital[c]	18	16.7	19.42 ± 7.69	21 (9-45)			
Experience years							
<1 year[a]	12	11.1	18.60 ± 7.02	19 (8-38)	17.256	0.001	c>a>b,d*
1–5 years[b]	38	35.2	20.25 ± 7.38	22 (11-48)			
6–10 years[c]	41	38.0	27.34 ± 7.77	25 (17-41)			
>11 years[d]	17	15.7	21.16 ± 8.54	21 (10-39)			
Work Shift							
Day	14	13.0	24.14 ± 6.58	25 (9-34)	7168.0	0.569	
Day and night	94	87.0	25.31 ± 7.33	27 (10-33)			
Tend to quit nursing							
Yes	65	60.2	29.15 ± 7.07	27 (15-48)	5479.50	<0.001	
No	43	39.8	21.65 ± 8.18	23 (11-37)			
Type of Clinic							
General Pediatric Clinic[a]	46	42.6	27.48 ± 8.11	27 (12-40)	28.124	0.014	a>b,c,d*
Intensive Care Unite[b]	28	25.9	25.25 ± 7.68	23 (10-35)			
Pediatric Emergency Department[c]	21	19.4	21.04 ± 8.45	22 (11-38)			
Pediatric Surgery Clinic[d]	13	12.1	22.35 ± 8.64	22 (13-34)			
Total							
	108	100.0	26.38 ± 8.91	27 (8-48)			

X= Mean, SD: Standart Deviation, * Games-Howell Post Hoc Correction

Table 3 Distribution of Compassion Fatigue Levels

Compassion Fatigue Level	n	%
Low	40	37.0
Moderate	66	61.1
High	2	1.9

fatigue between nurses with 1-5 years of experience and nurses with more than 11 years of experience (p=0.028).

The mean score for compassion fatigue among pediatric nurses in this study was 23.89 ± 6.98. These results indicate that the majority of pediatric nurses in this study reported low to moderate levels of compassion fatigue. Further details on the distribution of compassion fatigue levels according to the cut-off points are provided in Table 3.

Discussion

The findings of this study shed light on the significant impact of socio-demographic factors on CF among nurses, highlighting several key points that resonate with existing literature. The results indicate that age, type of clinic, duration of employment, and type of hospital influence nurses' CF levels.

Age emerged as a crucial factor, aligning with previous studies that found a significant relationship between age and CF (14,15). Specifically, our study revealed that younger nurses, particularly those aged 20-25, experience higher levels of CF compared to their older counterparts. This finding is consistent with the notion that younger nurses may be less experienced in coping with the emotional demands of patient care, leading to increased susceptibility to CF (15).

The type of clinic and duration of employment also emerged as significant factors in CF levels. Nurses working in general pediatric clinics and those with shorter or longer durations of employment (1-5 years and 21 years and above) reported higher levels of compassion fatigue. This finding is in line with previous research suggesting that the nature of the clinical setting and the length of exposure to stressors can contribute to CF (16, 17).

The hospital category was also discovered to correlate with levels of CF. Nurses working in university hospitals reported higher levels of compassion fatigue. These findings echo previous studies that have identified workplace environments as important factors in CF (18, 19).

It is noteworthy that while several socio-demographic factors were found to be associated with compassion fatigue, no significant relationship was found between work shifts and marital status. This finding is consistent with some previous studies (20, 21) but contrasts with others (20, 22), suggesting that the relationship between these factors and CF may vary across different populations and contexts.

The mean score for compassion fatigue among pediatric nurses in this study was 23.89 ± 6.98. These results indicate that the majority of pediatric nurses in this study reported low to moderate levels of compassion fatigue. Comparing this finding with existing literature, our results are consistent with previous studies that have also reported predominantly low to moderate levels of compassion fatigue among nurses (1,11). However, it is important to note that the level of compassion fatigue can vary depending on the population studied, the measurement tools used, and the healthcare setting. It is also worth noting that while the majority of nurses in our study reported low to moderate levels of compassion fatigue, even low levels of compassion fatigue can have a significant impact on nurses' well-being and patient care outcomes. Therefore, it is crucial for healthcare organizations to implement strategies to support nurses and mitigate the negative effects of compassion fatigue.

In general, the outcomes of this research add to our comprehension of the intricate relationship between sociodemographic variables and CF among nursing professionals. By identifying specific factors that influence compassion fatigue, healthcare organizations can develop targeted interventions to support nurses in managing this challenging aspect of their work.

Despite the valuable insights gained from this study, several limitations should be considered.

The cross-sectional design of this study limits the ability to establish causal relationships between socio-demographic factors and compassion fatigue. Longitudinal studies would offer a more comprehensive understanding of how these factors evolve over time. Future research could incorporate objective measures of CF to validate the findings. Moreover, since the study sample comprised only nurses in a particular setting, the findings may not be broadly applicable to other populations or healthcare settings.

Limitations

Despite the valuable insights gained from this study, several limitations should be considered. Firstly, the cross-sectional design limits the ability to establish causal relationships between socio-demographic factors and compassion fatigue. Longitudinal studies would provide a more comprehensive understanding of how these factors evolve over time. Secondly, the study's sample was limited to pediatric nurses in specific hospitals in Antalya and Burdur, Turkey. This may limit the generalizability of the findings to other populations or healthcare settings. Future research should aim to include a more diverse sample to enhance the generalizability of the results. Additionally, the use of self-reported measures, such as the Professional Quality of Life scale, introduces the possibility of response bias. Participants may have provided socially desirable responses, leading to an overestimation or underestimation of compassion fatigue levels.

Conclusion

In conclusion, this study highlights the significant impact of socio-demographic factors on CF among nurses. Age, type of clinic, duration of employment, and type of hospital were found to be associated with varying levels of CF. These results underscore the significance of considering socio-demographic agents in the development of targeted interventions to support nurses in managing CF. Through attending to these elements, healthcare institutions can bolster the welfare of their nursing workforce and improve the caliber of patient care.

Acknowledgment

The researcher would like to thank all the nurses who voluntarily participated in the study.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

Ethical Approval

Ethical considerations were carefully addressed throughout the study process. Approval was secured from Ethics committee of Mehmet Akif Ersoy University (Date: 07.02.2024; Decision no: GO/2024-105) prior to commencing the research. Permission was obtained from the author to use the scale. Furthermore, permissions were obtained from entire participants, affirming their voluntary involvement and ensuring ethical research practice. Written permission was obtained from the institution where the data of the study was collected. The study was conducted in line with the principles of the Helsinki Declaration.

Consent to Participate and Publish

Written informed consent to participate and publish was obtained from all individual participants or legal guardians included in the study.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Availability of Data and Materials

Data available on request from the authors.

Authors Contributions

H.İ.T: Idea/Concept; Design; Supervision/Consulting.; Analysis and/or Interpretation; Literature Search; Writing the Article; Critical Review.

References

1. Berger J, Polivka B, Smoot EA, Owens H. Compassion Fatigue in Pediatric Nurses. J Pediatr Nurs 2015;30(6):e11-e17.
2. Taşdemir Hİ, Aydın R, Dursun Ergezen F, Taşdemir D, Ergezen Y. Unveiling the Burden of Compassion Fatigue in Nurses. Nurs Ethics 2023;09697330231200571.
3. Robins P, Meltzer L, Zelikovsky N. The Experience of Secondary Traumatic Stress Upon Care Providers Working Within a Children's Hospital. J Pediatr Nurs 2009;24:270–279.
4. Sacco TL, Copel LC. Compassion Satisfaction: A Concept Analysis in Nursing. Nurs Forum 2018;53(1):76-83.
5. Sekol MA, Kim SC. Job Satisfaction, Burnout, and Stress Among Pediatric Nurses in Various Specialty Units at an Acute Care Hospital. J Nurs Educ Pract 2014;4:115–124.
6. Zander M, Hutton A, King L. Coping and Resilience Factors in Pediatric Oncology Nurses. J Pediatr Oncol Nurs 2010;27:94–108. http://dx.doi.org/10.1177/1043454209350154.
7. Sinclair S, Raffin-Bouchal S, Venturato L, Mijovic-Kondejewski J, Smith-MacDonald L. Compassion Fatigue: A Meta-Narrative Review of the Healthcare Literature. Int J Nurs Stud 2016;57:20-31.
8. Embriaco N, Papazian L, Kentish-Barnes N, Pochard F, Azoulay E. Burnout Syndrome Among Critical Care Healthcare Workers. Curr Opin Crit Care 2007;13(5):482-488.
9. Ondrejková N, Halamová J. Qualitative Analysis of Compassion Fatigue and Coping Strategies Among Nurses. Int J Nurs Sci 2022;9(4):467-480.
10. Xie W, Chen L, Feng F, Okoli CT, Tang P, Zeng L, Wang J. The Prevalence of Compassion Satisfaction and Compassion Fatigue Among Nurses: A Systematic Review and Meta-Analysis. Int J Nurs Stud 2021;120:103973.

11. Oktay D, Ozturk C. Compassion Fatigue in Nurses and Influencing Factors. Perspect Psychiatr Care 2022;58(4).
12. Stamm BH. The Concise ProQOL Manual. 2nd ed. Pocatello, ID: ProQOL.org; 2010. Available from: http://proqol.org/uploads/ProQOL_concise_2ndEd_12-2010.pdf.
13. Yesil A, Ergun U, Amasyali C, Er F, Olgun NN, Aker AT. Validity and Reliability of the Turkish Version of the Professional Quality of life Scale. Arch Neuropsychiatry 2010;47(2):111-118.
14. Alharbi J, Jackson D, Usher K. Personal Characteristics, Coping Strategies, and Resilience Impact on Compassion Fatigue in Critical Care Nurses: A Cross-Sectional Study. Nurs Health Sci 2020;22(1):20-27.
15. Cocker F, Joss N. Compassion Fatigue Among Healthcare, Emergency and Community Service Workers: A Systematic Review. Int J Environ Res Public Health 2016;13(6):618.
16. opeland D, Henry M. The Relationship Between Workplace Violence, Perceptions of Safety, and Professional Quality of Life Among Emergency Department Staff Members in a Level 1 Trauma Centre. Int Emerg Nurs 2018;39:26-32.
17. Sinclair S, Raffin-Bouchal S, Venturato L, Mijovic-Kondejewski J, Smith-MacDonald L. Compassion Fatigue: A Meta-Narrative Review of the Healthcare Literature. Int J Nurs Stud 2017;69:9-24.
18. Maillet S, Read E. Work Environment Characteristics and Emotional Intelligence as Correlates of Nurses' Compassion Satisfaction and Compassion Fatigue: A Cross-Sectional Survey Study. Nurs Rep 2021;11(4):847-858.
19. Zhan Y, Liu Y, Chen Y, Liu H, Zhang W, Yan R, Li S. The Prevalence and Influencing Factors for Compassion Fatigue Among Nurses in Fangcang Shelter Hospitals: A Cross-Sectional Study. Int J Nurs Pract 2022;28(5):e13054.
20. Cavanagh N, Cockett G, Heinrich C, Doig L, Fiest K, Guichon JR, Doig CJ. Compassion Fatigue in Healthcare Providers: A Systematic Review and Meta-Analysis. Nurs Ethics 2020;27(3):639-665.
21. Sorenson C, Bolick B, Wright K, Hamilton R. Understanding Compassion Fatigue in Healthcare Providers: A Review of Current Literature. J Nurs Scholarsh 2016;48(5):456-465.
22. Salmond E, Salmond S, Ames M, Kamienski M, Holly C. Experiences of Compassion Fatigue in Direct Care Nurses: A Qualitative Systematic Review. JBI Evidence Synthesis 2019;17(5):682-753.