ARTICLE

Determination of the Relationship between Empathy and Compassion Fatigue in Pediatric Clinic Nurses

Dilek Akıncı[1], Hacer Çetin[2] and Serpil Yılmaz[3,*]

[1]Pediatric Intensive Care Clinic, Mersin University Hospital, Mersin University, Mersin, 33110, Türkiye

[2]Faculty of Nursing, Mersin University, Mersin, 33110, Türkiye

[3]Faculty of Health Sciences, Hitit University, Çorum, 19200, Türkiye

*Corresponding Author: Serpil Yılmaz. Email: serpilyilmaz@hitit.edu.tr

ABSTRACT

Background: This study aimed to determine the relationship between compassion fatigue and empathic disposition and skill levels of pediatric clinic nurses. **Methods:** This research was carried out as a descriptive and cross-sectional study. The research was carried out with 233 nurses determined by using a stratified sampling method from 648 nurses working in two University Hospital and two City Hospital children's clinics. Data were collected using the "Personal Information Form", "Compassion Scale (CS)", "Empathic Tendency Scale (ETS)" and "Empathic Skill Scale (ESS)". Pearson Correlation test, Student's t-test, ANOVA test, and Scheffe test were used in the analysis of the data. **Results:** The mean age of the nurses participating in the study was 30.93 ± 6.23 years, 81.1% were women and 54.9% were married. Pediatric clinic nurses' mean compassion score was 96.29 ± 11.64, empathic tendency mean score was 69.30 ± 8.39, and empathic skill mean score was 140.82 ± 23.15. According to the findings obtained, the mean compassion score of the male, married, and nurses who were not satisfied with working in the pediatric clinics and working in the pediatric emergency clinics was found to be the lowest ($p < 0.05$, $p < 0.01$, $p < 0.001$). The empathic disposition mean scores of the nurses working in the pediatric inpatient clinics, who were satisfied with working in the pediatric clinic, and who did not have the thought of moving to another clinic, were found to be significantly higher ($p < 0.01$, $p < 0.001$). The mean scores of empathic skills of nurses working only during the daytime were found to be significantly higher ($p < 0.001$). **Conclusion:** This study confirms that pediatric clinic nurses are experiencing compassion fatigue at the end of COVID-19 and how this situation negatively affects their empathic tendencies and skills. The study highlights the need for both clinical and management-based planning to prevent compassion fatigue and increase empathic tendencies and skills in Pediatric clinic nurses.

KEYWORDS

Pediatric clinic; compassion fatigue; empathy; nursing; care

Introduction

Compassion is the desire to care about people's pain, sadness, distress and difficulties and to help them with an empathic approach to their situation [1]. It is emphasized that emotional connections are consistently present in the interactions between nurses and patients, and compassion is a crucial value that enhances the quality of care by supporting and facilitating the caregiving process [2]. The foundation of high-quality nursing care is defined as engaging in an empathetic and compassionate approach. However, over time, compassion can impose a burden on caregivers for various reasons, and this phenomenon is termed compassion fatigue in the literature [3]. Compassion

fatigue is regarded as a symptom that emerges from the nurse's compassionate and empathetic interaction with the patient and their family [4]. Alongside compassion, possessing effective communication skills is considered a factor that enhances the standard of nursing care. One criterion of effective communication is considered that individuals perceive themselves as being understood [5]. Empathy involves an individual immersing themselves in the perspective of another, viewing the situation from their vantage point, accurately comprehending and experiencing their emotions and thoughts, and communicating this understanding to that person. The basis of patient-centered care is established through empathetic interaction between the nurse and the patient. Nurses with a strong empathic inclination listen to patients and their families more attentively, identify their needs more precisely, and design suitable nursing interventions to address those needs most effectively [5–7].

Research indicates that compassion fatigue can manifest in any caregiving relationship characterized by empathy, and it is frequently observed among nurses working in forensic, oncology, intensive care units, pediatric services, emergency departments, and palliative care settings [8–11]. In pediatric nursing, the emphasis on family-centered care, coupled with the nature of the work environment, underscores the importance of compassion, empathy, and support. Nonetheless, prolonged exposure to patient and family trauma, the administration of demanding and distressing treatments, and the provision of emotional and psychological support can lead to severe compassion fatigue, resulting in mental, social, and physical burnout over time [9,12,13].

Regarding the interplay between individual well-being and the quality of working life, compassion fatigue may significantly contribute to nurses' decisions to leave the profession, as it adversely impacts both personal and professional quality of life [14]. Understanding the symptoms associated with compassion fatigue, identifying protective and mitigating risk factors, and recognizing the conditions influencing its development are crucial for safeguarding nurses' health. This knowledge also plays a key role in enhancing patient care quality and reducing the incidence of compassion fatigue [15,16].

A review of the literature across databases (such as ScienceDirect, ResearchGate, and Google Scholar) revealed a lack of studies that concurrently examine compassion fatigue, empathic tendencies, and skill levels in pediatric nursing. Enhancing the quality of pediatric care necessitates addressing and mitigating the factors contributing to compassion fatigue among nurses. Identifying the impacts of compassion fatigue on pediatric nurses and proposing potential solutions could improve nurses' working conditions and, consequently, the quality of pediatric healthcare. This study aims to explore the relationship between levels of compassion fatigue and the empathic tendencies and skill levels of nurses employed in pediatric settings.

Methods

Design
This study was descriptive and cross-sectional.

Participants
For the study's population, four hospitals in the Çukurova region were selected using a randomization method, chosen for their cultural similarities and regional proximity. A total of 648 nurses from these hospitals constituted the population of the study. The study, which aimed to encompass all pediatric clinics in the city centers of Adana and Mersin, treated each hospital, encompassing four hospitals, as a separate stratum. It was determined that a minimum of 30% of the total nurse population from each hospital should be included in the sample. Consequently, the sample size was calculated to be 194 nurses [17]. To account for a potential 20% attrition rate, the required sample size was adjusted to 233 individuals, representing 35.96% of the total population.

Inclusion criteria for the research sample
- Working in pediatric clinics for at least 4 months,
- No psychiatric disorder,
- Not using any psychiatric medication,
- Nurses who volunteered to participate in the study were included.

We thought if we include nurses who have a psychiatric disorder or using psychiatric medications in our sample, they might be outliers and skewing our results.

Data Collection

Data for the study were gathered from 01 March to 31 December 2020, within the specified clinics. Data collection forms were distributed to nurses in suitable rooms and clinical areas following their verbal consent. Once completed, the forms were collected. In COVID-19 wards, completed forms were photographed and transmitted to the researcher. The process of responding to the data collection forms took approximately 15 to 18 min per nurse.

Data collection forms

Personal information form
The Personal Information Form, which was created by conducting a literature research, includes questions about the socio-demographic and professional characteristics of nurses [5,12–14,18].

Compassion scale (CS)
The original Compassion Scale was developed by Pommier. Akdeniz & Deniz in 2016 performed a validity and reliability study and adapted it into Turkish. This scale assesses compassion towards others and consists of six sub-dimensions: kindness, indifference, common humanity, separation, mindfulness, and disengagement. It employs a 5-point Likert scale with 24 items, scored from 1 (never) to 5 (always). Scores for the sub-dimensions of indifference, disconnection, and disengagement are reversed in the calculations. The scale yields total scores ranging from 24 to 120, with higher scores indicating greater levels of compassion [18]. The alpha reliability coefficient for the scale was reported as α:0.93, with sub-dimensions ranging from α:0.75 to 0.88. In this study, the alpha reliability

coefficient for the overall Compassion Scale was α:0.88, and for its sub-dimensions, it ranged from α:0.55 to 0.72.

Empathic tendency scale (ETS)

The Empathic Tendency Scale (ETS) was developed by Dökmen in 1988, is designed to assess individuals' capacity for empathy in everyday situations. This scale evaluates the propensity to understand the emotions of unfamiliar and distant individuals, relate to those facing problems, and be influenced by others' positive emotional experiences. The ETS is a Likert-type scale comprising 20 items, each scored from 1 to 5. Items 3, 6, 7, 8, 11, 12, 13, and 15 are reverse scored. The total score ranges from 20 to 100, with higher scores indicating greater empathic tendency and lower scores reflecting a lesser empathic tendency. The ETS has a reported reliability coefficient of 0.82 [19], and in this study, the alpha reliability coefficient was α:0.81.

Empathic skill scale-form B (ESS)

The Empathic Skills Scale (ESS), developed by Dökmen to assess the capacity for verbal expression of empathic understanding in both cognitive and emotional aspects, has been validated and tested for reliability in Turkey. The ESS is available in two forms, 'A' and 'B'. The ESS-B form involves six distinct daily-life scenarios, each accompanied by 6 different texts describing various problems and 12 one-sentence responses that could be given to each problem. Participants are required to select four of the 12 responses for each scenario, with each response option scored from 1 to 10. The total ESS score ranges from 62 to 219, with higher scores indicating greater empathic skills. To ensure the validity of responses, one of the 12 options for each problem is irrelevant, serving as a check for random answering, and any response marked as such is scored zero, rendering the scale invalid if used. The reliability coefficient of the ESS was reported as r = 0.91, and the validity coefficient was $p < 0.01$ [19]. In this study, the alpha reliability coefficient was α:0.71.

Data assessment

Descriptive statistics, including mean, standard deviation, frequency, and range (minimum and maximum values), were employed to assess the data. Given the normal distribution of the data, the Pearson Correlation test was applied to examine the relationship between two continuous variables. The Student's *t*-test was utilized to compare the means of two groups, while the ANOVA test was employed to compare the means of more than two groups. If differences were identified by ANOVA, the Scheffe test was conducted as a *Post Hoc* analysis, given the homogeneity of group variances. Results were analyzed at a 95% confidence interval with a significance level of $p < 0.05$. Data analysis was carried out using the Statistical Package for the Social Sciences (SPSS) version 20.0 for Windows-Demo version.

Ethical aspects of the research

Approval from the Mersin University Clinical Research Ethics Committee was secured prior to data collection (approval date: 05 February 2020, reference number: 2020/111). Institutional permissions were granted by the hospitals and Provincial Health Directorates. Verbal consent was acquired from the nurses involved in the study.

Results

The nurses involved in the study ranged in age from 21 to 49 years, with a mean age of 30.93 ± 6.23 years. Among the participants, 81.1% were female and 54.9% were married. The duration of their employment in the clinic varied from 4 to 276 months (4 months to 23 years), with a mean of 53.85 ± 47.40 months, and their experience as nurses ranged from 4 to 387 months, with a mean of 105.32 ± 78.73 months. The nurses' weekly working hours ranged from 32 to 72 h, with a mean of 45.82 ± 7.13 h. Additionally, 70.4% of the nurses worked in shifts, 81.1% expressed satisfaction with their current clinic, and 62.7% had no plans to transfer to another clinic. Of the participants, 42.9% were employed in Intensive Care Units.

The ean score on the Compassion Scale for pediatric clinic nurses was 96.29 ± 11.64. The mean scores for the CS subscales were as follows: kindness 16.11 ± 2.61, indifference 16.07 ± 2.82, common humanity 16.17 ± 2.51, separation 15.82 ± 2.65, mindfulness 16.00 ± 2.38, and disengagement 16.11 ± 2.82. The mean score on the Empathy Trait Scale for the nurses was 69.30 ± 8.39, while the mean score on the Empathy Skills Scalewas 140.82 ± 23.15 (see Table 1).

No statistically significant correlation was observed between the age of pediatric clinic nurses and their scores on the Compassion Scale (CS) and the Empathy Trait Scale (ETS) ($p > 0.05$). However, a positive, very weak (r = 0.23) and statistically significant correlation was identified between the nurses' age and their Empathy Skills Scale (ESS) scores ($p < 0.05$). Additionally, a positive, very weak (r = 0.20) and statistically significant correlation was found between the nurses' duration of employment in the clinic and their ESS scores ($p < 0.05$). A positive, very weak (r = 0.19) and statistically significant correlation was also

TABLE 1

Distribution of nurses' mean scores of compassion, empathic tendency and empathic skill

Scales	That can be taken min-max values	$\bar{X} \pm SD$	Received min-max values
CS total score	24–120	96.29 ± 11.64	63–119
Kindness	4–20	16.11 ± 2.61	7–20
Indifference	4–20	16.07 ± 2.82	7–20
Common humanity	4–20	16.17 ± 2.51	9–20
Separation	4–20	15.82 ± 2.65	9–20
Mindfulness	4–20	16 ± 2.38	8–20
Disengagement	4–20	16.11 ± 2.82	8–20
ETS score	20–100	69.30 ± 8.39	40–90
ESS score	62–219	140.82 ± 23.15	90–206

<div style="text-align:center">TABLE 2</div>

The relationship between nurses' age, working time in the clinic, working time as a nurse and compassion, empathic tendency and empathic skill

		CS	ETS	ESS
Age	r	−0.04	0.05	0.23
	p	0.58	0.48	**<0.001**
Duration of work in the clinic	r	0.06	0.06	0.20
	p	0.37	0.36	**0.002**
Duration of working as a nurse	r	0.01	0.07	0.19
	p	0.94	0.27	**0.01**
CS	r	1	0.54	0.16
	p		**<0.001**	**0.015**
ETS	r	0.54	1	0.15
	p	**<0.001**		**0.02**

observed between the length of time working as a nurse and the ESS scores ($p < 0.01$). Furthermore, a positive, moderate ($r = 0.54$) and statistically significant correlation was noted between the CS and ETS scores ($p < 0.001$). There was also a positive, very weak ($r = 0.16$) and statistically significant correlation between the CS and ESS scores ($p < 0.05$), as well as a positive, very weak ($r = 0.15$) and statistically significant correlation between the ETS and ESS scores ($p < 0.05$) (see Table 2).

Male nurses exhibited significantly lower mean Compassion Scale (CS) scores compared to female nurses ($p < 0.05$; $p < 0.01$). Married nurses scored significantly lower on the Common Humanity subscale than their single counterparts ($p < 0.001$). Nurses who were dissatisfied with their clinic had significantly lower mean scores in the Mindfulness sub-dimension compared to those who were satisfied ($p < 0.05$). The mean scores for the Kindness sub-dimension were significantly lower among nurses who were considering transferring to another clinic compared to those

<div style="text-align:center">TABLE 3</div>

Comparison of compassion scores according to descriptive characteristics of nurses

Features	n	CS Total X̄ ± SS	Kindness X̄ ± SS	Indifference X̄ ± SS	Common humanity X̄ ± SS	Separation X̄ ± SS	Mindfulness X̄ ± SS	Disengagement X̄ ± SS
Gender								
Female	189	97.20 ± 11.33	16.38 ± 2.38	16.21 ± 2.78	16.29 ± 2.50	15.93 ± 2.65	16.20 ± 2.11	16.20 ± 2.77
Male	44	92.36 ± 12.27	14.98 ± 3.20	15.45 ± 2.90	15.66 ± 2.56	15.34 ± 2.62	15.18 ± 3.19	15.75 ± 3.03
p		**0.01**	**0.001**	0.11	0.13	0.19	0.05	0.35
Marital status								
Single	105	96.18 ± 11.61	16.00 ± 2.88	15.74 ± 2.80	16.79 ± 2.23	15.68 ± 2.52	15.97 ± 2.59	15.99 ± 2.86
Married	128	96.38 ± 11.71	16.20 ± 2.37	16.33 ± 2.81	15.66 ± 2.63	15.93 ± 2.75	16.04 ± 2.20	16.21 ± 2.80
p		0.90	0.59	0.11	**<0.001**	0.47	0.83	0.55
Satisfaction with the clinic								
Satisfied	189	96.89 ± 11.89	16.21 ± 2.52	16.20 ± 2.73	16.20 ± 2.61	15.87 ± 2.69	16.16 ± 2.37	16.24 ± 2.81
Not satisfied	44	93.70 ± 10.23	15.70 ± 2.95	15.50 ± 3.13	16.05 ± 2.07	15.57 ± 2.48	15.34 ± 2.34	15.54 ± 2.82
p		0.10	0.25	0.14	0.71	0.49	**0.04**	0.14
Consideration of moving to another clinic								
Yes	87	94.40 ± 11.10	15.60 ± 2.70	15.67 ± 3.14	16.14 ± 2.40	16.61 ± 2.59	15.62 ± 2.39	15.77 ± 2.93
No	146	97.41 ± 11.85	16.42 ± 2.52	16.31 ± 2.59	16.19 ± 2.59	15.94 ± 2.68	16.24 ± 2.35	16.32 ± 2.75
p		0.06	**0.02**	0.11	0.88	0.36	0.05	0.15
Working unit								
Pediatric inpatient clinics	99	99.12 ± 11.39[a]	16.42 ± 2.49[a]	16.65 ± 2.73[a]	16.38 ± 2.29	16.37 ± 2.59[a]	16.40 ± 2.67[a]	16.89 ± 2.48[a]
Intensive care units	100	96.07 ± 10.95[a]	16.15 ± 2.42	15.96 ± 2.85	16.12 ± 2.58	15.81 ± 2.48	16.02 ± 2.05[a]	16.01 ± 2.84[a]
Child emergency unit	34	88.68 ± 11.14	15.09 ± 3.23	14.71 ± 2.50	15.71 ± 2.92	14.21 ± 2.72	14.82 ± 3.15	14.15 ± 2.79
p		**<0.001**	**0.04**	**0.01**	0.39	**<0.001**	**0.01**	**<0.001**
Working style								
Daytime only	69	96.74 ± 11.58	16.45 ± 2.27	16.16 ± 2.97	16.07 ± 2.46	15.97 ± 2.61	16.12 ± 2.12	15.97 ± 2.95
Shift	164	96.10 ± 11.70	15.97 ± 2.73	16.03 ± 2.75	16.21 ± 2.54	15.75 ± 2.67	15.96 ± 2.48	16.17 ± 2.78
p		0.70	0.20	0.75	0.70	0.56	0.66	0.62

Note: [a] statistically significant difference from the "pediatric emergency unit" group.

who were not ($p < 0.05$). Nurses working in pediatric emergency clinics had the lowest mean scores across the total CS, as well as in the Kindness, Indifference, Separation, Mindfulness, and Disengagement subscales, with statistically significant differences observed ($p < 0.05$; $p < 0.001$). *Post Hoc* Scheffe testing revealed significant differences between the "pediatric emergency" group and both the "pediatric inpatient clinic" and "intensive care units" groups ($p < 0.05$; $p < 0.01$; $p < 0.001$) (see Table 3).

No statistically significant differences were observed in the mean Empathy Trait Scale (ETS) scores based on nurses' gender, marital status, or working style ($p = 0.06$; $p = 0.77$; $p = 0.10$). Nurses who were dissatisfied with their clinic had significantly lower mean ETS scores compared to those who were satisfied ($p < 0.05$). However, no significant differences were found in the mean Empathy Skills Scale scores related to clinic satisfaction. Nurses considering a transfer to another clinic also had significantly lower mean ETS scores compared to those who were not considering a transfer ($p < 0.05$). No significant differences were observed

TABLE 4

Comparison of empathic tendency and empathic skill scores of nurses according to their descriptive characteristics

Features	n	ETS $\bar{X} \pm SD$	ESS $\bar{X} \pm SD$
Gender			
Female	189	69.80 ± 8.23	141.50 ± 23.67
Male	44	67.16 ± 8.81	137.89 ± 20.78
p		0.06	0.35
Marital status			
Married	128	69.45 ± 8.74	143.79 ± 22.44
Single	105	69.12 ± 7.98	137.20 ± 23.60
p		0.77	0.30
Satisfaction with the clinic			
Satisfied	189	69.83 ± 8.81	141.39 ± 23.29
Not satisfied	44	67.07 ± 5.82	138.39 ± 22.69
p		**0.01**	0.44
Consideration of moving to another clinic			
There is	87	66.84 ± 7.27	140.10 ± 21.89
No	146	70.77 ± 8.69	141.25 ± 23.94
p		**<0.001**	0.72
Working unit			
Pediatric inpatient clinics	99	71.74 ± 7.61	142.75 ± 24.62
Intensive care units	100	68.16 ± 8.50[a]	140.99 ± 23.08
Child emergency unit	34	65.59 ± 8.35[a]	134.71 ± 17.95
p		**<0.001**	0.22
Working style			
Daytime only	69	70.84 ± 9.70	149.48 ± 22.30
Shift	164	68.66 ± 7.71	137.18 ± 22.60
p		0.10	**<0.001**

Note: [a]statistically significant difference from the "pediatric inpatient clinics" group.

between the intention to transfer and mean ESS scores. Nurses working in Pediatric Emergency Clinics had the lowest mean ETS scores, with significant differences noted ($p < 0.05$). *Post Hoc* Scheffe testing revealed significant differences between the "pediatric inpatient clinic" and both the "pediatric emergency" and "intensive care units" groups ($p < 0.01$). Additionally, the mean ESS scores for nurses working shifts were significantly lower compared to those working only during the day ($p < 0.001$) (see Table 4).

Discussion

In research conducted on nurses in pediatric clinics [20] and university hospitals [21], the mean scores for the sub-dimensions of indifference, separation, and disengagement were found to be lower compared to the scores in our study. This discrepancy is likely attributable to variations in educational levels, sociocultural backgrounds, and regional factors among the nurses in the sample groups. Given that our study's data were collected during the COVID-19 pandemic, which introduced significant stress into both the work environment and personal lives of nurses, this likely increased the mean scores for compassion fatigue. Similar mean Compassion Scale scores were observed in studies involving psychiatric ward nurses [22] and surgical nurses [23]. Additionally, mean scores for the Empathy Trait Scale and Empathy Skills Scale in research involving orthopedic and physical therapy nurses [24], midwifery students [25], and nurses [26,27] were found to be consistent with our study's findings. Given that men typically exhibit lower levels of compassion, it can be inferred that they may experience greater compassion fatigue than women. This aligns with our findings and those from studies on intensive care nurses [28] and student nurses [29], which reported higher levels of compassion fatigue among male nurses.

Similarly, our study supports that single nurses experience less compassion fatigue than married nurses, consistent with other studies showing that married nurses report higher levels of compassion fatigue [30,31]. However, a study on intensive care nurses found that single nurses experienced more compassion fatigue, which contrasts with our results [9]. Furthermore, some literature suggests that compassion fatigue is unaffected by marital status [28,32,33]. These differences in findings may be attributed to variations in sample selection, and regional, cultural, and country-specific factors.

In this context, it can be inferred that nurses who express a desire to transfer to a different clinic are likely to experience higher levels of compassion fatigue compared to those who do not wish to move. However, a study involving healthcare workers found no significant difference in Compassion Scale scores based on changes between units [34]. Supporting our findings, existing literature indicates that compassion fatigue is more prevalent in specialized units such as emergency departments, intensive care units, and oncology clinics compared to other settings [13,16,35,36]. Conversely, a different study reported that nurses in emergency and internal medicine wards had lower levels of compassion fatigue compared to those in other wards [37]. Another study found no significant differences in compassion fatigue

sub-dimension scores based on the specific clinic within the hospital [30]. In contrast, research among emergency medicine residents identified working 80 h or more per week and night shifts as risk factors for compassion fatigue [38]. Additionally, another study found that nurses working over 40 h per week had higher levels of compassion fatigue ($p < 0.05$) [6]. Some studies report that marital status does not significantly impact nurses' empathic tendencies and skill levels [27,39,40]. Furthermore, research indicates no significant differences in empathic skill scores based on nurses' gender [26,39–41]. However, one study found that married nurses had significantly higher empathic skill scores compared to single nurses [41], while another study reported that female nurses had significantly higher empathic tendency scores than their male counterparts [26].

Nurses who were dissatisfied with their clinic had significantly lower mean scores on the Empathy Trait Scale (ETS) compared to those who were satisfied with their work environment. Research indicates that nurses who are satisfied with their working conditions tend to have significantly the highest empathic training scores [26,42]. In line with this information, it can be said that increased job satisfaction is associated with better interpersonal relationships and higher empathic tendencies among nurses, which can be considered an expected outcome. However, there are also studies showing that there is no significant difference in empathic tendency scores based on satisfaction with the work environment [22,27,43,44]. Additionally, some research shows that emergency department nurses generally have the lowest mean empathic tendency scores [42,45], whereas other studies report that emergency and intensive care nurses have the highest scores [44]. It is considered that the intense workload or personnel shortages in Pediatric Emergency Clinics may reduce empathy among these nurses. The COVID-19 pandemic is also believed to have influenced nurses' empathic tendencies. Similarly, differences in empathic tendencies and skills based on the department where nurses work have not been consistently significant [27]. However, another study reported that empathic skill levels varied according to the specific service and duties within that service [46]. The discrepancies between these findings and our study may be attributed to differences in sample populations and the stressors encountered during the pandemic.

It can be said that the empathy skills of nurses working in shifts are negatively affected by factors such as exposure to long hours of strenuous work tempo, insomnia, nutrition and self-care problems. In parallel with the findings of this study, one study found a statistically significant difference between the empathic skill scores of pediatric nurses according to their working style [41]. Another study found no significant difference in empathic tendency scores among nurses based on their clinic duties [39]. Similarly, other research has indicated that age does not significantly impact mean compassion scores among nurses [26,28,30,39]. However, a study did report a significant positive correlation between age and empathic skill scores [41]. Likewise, several studies found no significant relationship between the length of time nurses worked in a clinic and their levels of compassion fatigue [30,47]. Conversely, one study noted that a longer duration in the current department significantly increased compassion fatigue levels [48]. Similarly, a study identified a positive and statistically significant relationship between the duration of clinic employment and empathic skill scores [41]. Nonetheless, other research found no significant difference between mean empathic skill scores and nurses' working hours [26,27,49]. Variations in these findings are likely due to differences in the clinical units, sample selection, and the psychosocial impacts of the COVID-19 pandemic compared to previous years. Similarly, a study reported a significant positive relationship between compassion and empathic tendencies among psychiatric nurses [22,50].

Implications for Practice

Based on our research findings, nurses who are dissatisfied with their current clinic, work in pediatric emergency settings, are male, married, are considering a transfer to another clinic, or work shifts may be more susceptible to compassion fatigue. Additionally, these factors may contribute to decreased empathic tendencies and skills. Therefore, these variables should be considered when devising strategies to enhance the psychological well-being of nurses. Given that male and married nurses working in pediatric clinics experience higher levels of compassion fatigue, it would be advisable to ensure a balanced distribution of male and female, married and single nurses in shift work. To support the empathic tendencies of pediatric nurses and mitigate compassion fatigue, it is recommended that clinic satisfaction be regularly assessed by managerial staff, with efforts made to resolve any issues and align nurse assignments with their preferences whenever possible. To prevent long-term placements in pediatric emergency units, it would be beneficial to implement rotation systems, prioritize evaluating motivation and work-related issues, identify factors contributing to compassion fatigue, adjust nurse-patient ratios, enhance working conditions, and establish adequate rest periods. It is crucial to focus on the empathic needs of nurses working with intensive and traumatic patients, such as those in pediatric emergency and intensive care units and develop appropriate institutional psychosocial support strategies. Given that working shifts and duration in the clinic impact empathic skills, organizing equitable working patterns and offering programs to support empathic skills for newly appointed nurses is essential. It is recommended that compassion fatigue and empathy skills be evaluated together, with efforts focused on improving empathy levels and addressing compassion fatigue comprehensively.

Limitations and Future Research

While this study explores the correlation between compassion fatigue and the levels of empathic tendencies and skills among nurses in pediatric clinics, there are several limitations to consider: Firstly, the research was limited to a sample from four hospitals in the Çukurova region. Future studies could expand to include pediatric nurses from hospitals across various regions of the country. Secondly, the study

exclusively focused on nurses in pediatric clinics. Future research could also examine the relationship between compassion fatigue and empathic tendencies and skills among other healthcare professionals, such as doctors and midwives.

Conclusion

The study revealed that nurses experiencing dissatisfaction with their clinic, working in Pediatric Emergency Clinics, who are male, married, or considering a transfer to another clinic, exhibited significantly higher levels of compassion fatigue. Additionally, it was observed that the empathic tendencies of nurses who were dissatisfied with their clinic, considering a transfer, or working in Pediatric Emergency Clinics were notably lower. Furthermore, nurses working shifts in pediatric clinics had significantly reduced empathic skills. It was found that increases in age, duration of employment at the clinic, and total nursing experience were associated with significant improvements in empathic skills. Conversely, heightened compassion fatigue was linked to significant declines in both empathic tendencies and skills. Based on these findings, it is recommended that efforts to mitigate compassion fatigue and enhance empathic tendencies and skills among pediatric clinic nurses should prioritize male nurses, married nurses, those dissatisfied with their current clinic, those considering a transfer, those working in Pediatric Emergency Clinics, and those working shifts.

Author Contributions: The authors confirm their contribution to the paper as follows: Study idea: Dilek Akıncı, Hacer Çetin, Serpil Yılmaz; Audit: Hacer Çetin, Serpil Yılmaz; Data collection and/or processing: Dilek Akıncı; Analysis and/or interpretation: Serpil Yılmaz, Dilek Akıncı; Literature review and writing: Dilek Akıncı, Hacer Çetin, Serpil Yılmaz; Approval: Hacer Çetin, Serpil Yılmaz. All authors reviewed the results and approved the final version of the manuscript.

Availability of Data and Materials: The data is available on request from the corresponding author.

Ethics Approval: Ethics committee approval was obtained from the Mersin University Clinical Research Ethics Committee (date: 05 February 2020, number: 2020/111) before the collection of research data. Institutional permissions were obtained from the hospitals and Provincial Health Directorates. Verbal consent was obtained from the nurses participating in the study.

Conflicts of Interest: The authors declare that they have no conflicts of interest to report regarding the present study.

References

1. Szanto T, Landweer H. The routledge handbook of phenomenology of emotion. 1st ed. New York: Routledge; 2020.

2. Nursing and Midwifery Council [NMC]. Guidance on professional conduct for nursing and midwifery students. 2012. Available from: https://www.staff.city.ac.uk/m.j.jones/PDFs/Guidance-on-professional-conduct-for-nursing-and-midwifery-students-September-2010.pdf. [Accessed 2024].

3. Gerace A. Roses by other names? Empathy, sympathy, and compassion in mental health nursing. Int J Ment Health Nurs. 2020;29:736–44. doi:10.1111/inm.v29.4.

4. Todaro-Franceschi V. Compassion fatigue and burnout in nursing: enhancing professional quality of life. 3rd ed. USA: Springer Complition Company; 2024.

5. Cao X, Chen L. Relationships between resilience, empathy, compassion fatigue, work engagement and turnover intention in haemodialysis nurses: a cross-sectional study. J Nurs Manag. 2021;29:1054–63. doi:10.1111/jonm.v29.5.

6. Sahin S, Arioz Duzgun A, Unsal A, Inan Kirmizigul E, Ozdemir A. Assessment of compassion fatigue and empathy levels in nurses during the COVID-19 outbreak: Turkey's case. J Relig Health. 2023;62:1343–57. doi:10.1007/s10943-023-01749-z.

7. Alharbi J, Jackson D, Usher K. Compassion fatigue in critical care nurses and its impact on nurse-sensitive indicators in Saudi Arabian hospitals. Australian Critical Care. 2020;33:553–9. doi:10.1016/j.aucc.2020.02.002.

8. Xiea W, Chenb L, Fengc F, Okoli CTC, Tanga P, Zenga L, et al. The prevalence of compassion satisfaction and compassion fatigue among nurses: a systematic review and meta-analysis. Int J Nurs Stud. 2021;120:103973. doi:10.1016/j.ijnurstu.2021.103973.

9. Xie W, Wang J, Zhang Y, Zuo M, Kang H, Tang P, et al. The levels, prevalence and related factors of compassion fatigue among oncology nurses: a systematic review and meta-analysis. J Clin Nurs. 2021;30:615–32. doi:10.1111/jocn.v30.5-6.

10. Marshman C, Hansen A, Munro J. Compassion fatigue in mental health nurses: a systematic review. J Psychiatr Ment Health Nurs. 2022;29:529543.

11. Gustafsson T, Hemberg J. Compassion fatigue as bruises in the soul: a qualitative study on nurses. Nurs Ethics. 2022;29(1):157–70. doi:10.1177/09697330211003215.

12. Forsyth LA, Lopez S, Lewis KA. Caring for sick kids: an integrative review of the evidence about the prevalence of compassion fatigue and effects on pediatric nurse retention. J Pediatr Nurs. 2022;63:9–19. doi:10.1016/j.pedn.2021.12.010.

13. Arıkan A, Esenay FI. Compassion fatigue and burnout in Turkish pediatric emergency nurses during the COVID-19 pandemic. J Pediatr Nurs. 2023;71:120–6. doi:10.1016/j.pedn.2022.11.004.

14. Çalışır H, Karataş P, Turan T, Ergin D. Relationship between liking of children and burnout, compassion fatigue, occupational satisfaction in pediatric nurses. Turkiye Klinikleri J Nurs Sci. 2020;12(1):30–6. doi:10.5336/nurses.2019-70084.

15. Oktay D, Ozturk C. Compassion fatigue in nurses and influencing factors. Perspect Psychiatr Care. 2022;58(4):1691–700. doi:10.1111/ppc.12977.

16. Cho EJ, Cho HH. Factors influencing compassion fatigue among hospice and palliative care unit nurses. J Hosp Palliat Care. 2021;24(1):13–25. doi:10.14475/jhpc.2021.24.1.13.

17. Denis DS. Applied univariate, bivariate, and multivariate statistics: understanding statistics for social and natural

scientists, with applications in SPSS and R. 2nd ed. India: John Wiley & Sons Inc.; 2021.

18. Pommier EA. The compassion scale (Ph.D. Thesis). The University of Texas: Austin, TX, USA; 2010.

19. Dökmen Ü. Measuring empathy based on a new model and developing it with psychodrama. Ankara Univ Faculty of Educ J. 1988;21:155–90.

20. Tanrıkulu G. Determination of compassion level and compassion fatigue among nurses working in pediatric clinics (Master's Thesis). Necmettin Erbakan University: Konya, Turkey; 2019.

21. Arkan B, Yılmaz D, Düzgün F. Determination of compassion levels of nurses working at a university hospital. J Relig Health. 2020;59(1):29–39. doi:10.1007/s10943-019-00786-x.

22. Cihan S. Investigation of the relationship between personality, compassion fatigue and empathy among nurses working in psychiatric services (Master's Thesis). Sakarya University: Sakarya, Turkey; 2020.

23. Arlı Ş.K, Bakan AB. Factors affecting compassion and intercultural sensitivity among surgical nurses. STED. 2018; 27:277–83.

24. Sungurlu İ. Evaluation of empathy skill levels of orthopedic and physical therapy nurses (Trabzon province Yavuz Selim bone diseases and rehabilitation hospital example) (Master's Thesis). Avrasya University: Trabzon, Turkey; 2018.

25. Tuna Oran N, Kurul Ş. Empathic tendency and empathic skill levels of midwifery students. J Health Sci and Professions. 2019;6(1):30–8.

26. Özdemir NG. The relationship between nurses' empathic tendency and empathic skills and their perception of individualized care (Master's Thesis). Istanbul University: İstanbul, Turkey; 2015.

27. Manav Aİ. Evaluation of empathic tendencies and skills of nurses (Master's Thesis). Mersin University: Mersin, Turley; 2008.

28. Özan A. Determination of compassion and compassion fatigue in ıntensive care nurses (Master's Thesis). Atatürk University: Erzurum, Turkey; 2019.

29. Çingöl N, Çelebi E, Zengin S, Karakaş M. Investigation of compassion levels of nursing students in a health college. J Clin Psychiat. 2018;21:61–7. doi:10.5505/kpd.2018.65487.

30. Kara D. Examining nurses' compassion fatigue and self-understanding (Master's Thesis). Okan University: İstanbul, Turkey; 2018.

31. Yılmaz G. The effects of compassion fatigue, job satisfaction, burnout and post-traumatic growth levels of oncology nurses (Ph.D. Thesis). Dokuz Eylül University: İzmir, Turkey; 2016.

32. Dasan S, Gohil P, Cornelius V. Prevalence, causes and consequences of compassion satisfaction and compassion fatigue in emergency care: a mixed-methods study of UK NHS consultants. EMJ. 2015;32(8):588–94. doi:10.1136/emermed-2014-203671.

33. Kılıç S. Investigation of traumatic stress symptoms, professional satisfaction, burnout and compassion fatigue among nurses working in a state hospital (Master's Thesis). Nevşehir Hacı Bektaş Veli University: Nevşehir, Turkey; 2019.

34. Kişmir Ş. The effect of compassion fatigue level on motivation and job satisfaction of employees: an application on health workers and comparison of public-private hospitals (Master's Thesis). İstanbul Aydın University: İstanbul, Turkey; 2019.

35. Hooper S. Working toward a healthier you: recognizing compassion fatigue. J Perianesth Nurs. 2017;32(3):165–6. doi:10.1016/j.jopan.2017.04.007.

36. Beck CT. Secondary traumatic stress in nurses: a systematic review. Arch Psychiatr Nurs. 2011;25(1):1–10. doi:10.1016/j.apnu.2010.05.005.

37. Şahin Ö. Determination of compassion fatigue and burnout levels of nurses (Master's Thesis). Hatay Mustafa Kemal University: Hatay, Turkey; 2020.

38. Bellolio MF, Cabrera D, Sadosty AT. Compassion fatigue is similar in emergency medicine residents compared to other medical and surgical specialties. West J Emerg Med. 2014; 5(6):629–35.

39. Öztürk EA. Factors affecting communication and empathic skill levels of emergency nurses (Master's Thesis). Ondokuz Mayıs University: Samsun, Turkey; 2015.

40. Arpacı S. Evaluation of nurses' empathy levels and inpatient satisfaction (Master's Thesis). Haliç University: İstanbul, Turkey; 2017.

41. Sertakan B. The relationship between self-esteem and empathy skills of pediatric nurses and physicians and their love for children (Master's Thesis). Cumhuriyet University: Sivas, Turkey; 2018.

42. Tekmen Y. Investigation of the relationship between empathic tendency levels and job satisfaction of physicians and nurses (Master's Thesis). Haliç University: İstanbul, Turkey; 2010.

43. Özcan H. Empathic tendency and empathic skills of nurses: the Gümüşhane example, Gümüşhane University. J Health Sci. 2012;1(2):114–6.

44. Çiçek A. Evaluation of empathic tendencies and skills of healthcare professionals (Master's Thesis). Marmara University: İstanbul, Turkey; 2006.

45. Altınoluk H. Evaluation of empathic tendencies and skills in nurses/midwives (Denizli server Gazi hospital example). Beykent, University: İstanbul, Turkey; 2014.

46. Coşkun F. Evaluation of empathic skill levels of nurses working in internal medicine and surgery services (Master's Thesis). Istanbul University: İstanbul, Turkey; 2011.

47. Adanır A. Determination of compassion fatigue and stress coping styles of nurses working in oncology and palliative care clinics (Master's Thesis). Dokuz Eylül University: İzmir, Turkey; 2019.

48. Koca F. Compassion fatigue in nurses and examination of effective factors (Master's Thesis). Maltepe University: İstanbul, Turkey; 2018.

49. Kaya F. Comparison of communication and empathic skill levels of nurses and patients' perceptions of nursing care (Master's Thesis). Mersin University: Mersin, Turkey; 2011.

50. Richardson C, Percy M, Hughes J. Nursing therapeutics: teaching student nurses care, compassion and empathy. Nurse Educ Today. 2015;35(5):1–5. doi:10.1016/j.nedt.2015.01.016.