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Predictors of Empathic Concern: The Roles of Compassion Fatigue and Positive Affect

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A B S T R A C T

The objective of this study was to investigate the relationships between Empathic Concern, Compassion Fatigue, and Positive Affect among professionals in caregiving roles. Specifically, it aimed to identify key predictors of empathic behavior and their impact on professional quality of life. A cross-sectional design was employed, involving 250 participants selected through stratified random sampling from various professional backgrounds. Data were collected using validated instruments: the Interpersonal Reactivity Index (IRI) for Empathic Concern, the Professional Quality of Life Scale (ProQOL) for Compassion Fatigue, and the Positive and Negative Affect Schedule (PANAS) for Positive Affect. Data analysis was conducted using SPSS-27, including Pearson correlation coefficients and multiple linear regression analysis to explore the relationships between the variables. Descriptive statistics revealed that participants had a mean Empathic Concern score of 4.35 (SD = 0.67), a mean Compassion Fatigue score of 3.12 (SD = 0.89), and a mean Positive Affect score of 3.87 (SD = 0.75). Pearson correlation analysis showed a significant negative correlation between Compassion Fatigue and Empathic Concern ($r = -0.42$, $p = 0.001$), and a significant positive correlation between Positive Affect and Empathic Concern ($r = 0.56$, $p < 0.001$). Multiple linear regression analysis indicated that Compassion Fatigue ($B = -0.28$, $SE = 0.05$, $\beta = -0.34$, $t = -5.60$, $p = 0.001$) and Positive Affect ($B = 0.47$, $SE = 0.07$, $\beta = 0.52$, $t = 7.03$, $p < 0.001$) significantly predicted Empathic Concern, accounting for 37% of the variance ($R^2 = 0.37$, $F(2, 247) = 58.76$, $p < 0.001$). The study concluded that Positive Affect significantly enhances Empathic Concern, while Compassion Fatigue reduces it. These findings suggest the importance of fostering Positive Affect and mitigating Compassion Fatigue among professionals to maintain high levels of empathy. Interventions such as mindfulness and self-compassion training may be beneficial in achieving these goals.

Keywords: *Empathic Concern, Compassion Fatigue, Positive Affect, Professional Caregivers, Mindfulness, Self-Compassion, Professional Quality of Life.*

1. Introduction

Empathy, a multifaceted construct involving cognitive and affective components, plays a crucial role in fostering meaningful interpersonal relationships and effective professional practice, particularly in healthcare and counseling professions. The significance of empathy extends beyond personal interactions, influencing professional quality of life and overall well-being (Duarte et al., 2016). Within this context, the present study investigates the interplay between Empathic Concern, Compassion Fatigue, and Positive Affect among professionals, aiming to elucidate the predictors of empathic behavior and its consequences.

Empathic Concern, a key dimension of empathy, refers to the feelings of warmth, compassion, and concern for others, often motivating prosocial behavior (Block-Lerner et al., 2007). Empathy is essential for professionals in caregiving roles, such as nurses, psychotherapists, and counselors, as it enhances patient satisfaction and therapeutic outcomes (Gleichgerrcht & Decety, 2013). However, the sustained emotional engagement required in these professions can lead to adverse effects, such as Compassion Fatigue, if not adequately managed (Hofmeyer et al., 2020).

Compassion Fatigue, characterized by emotional exhaustion and a diminished capacity to empathize, often results from prolonged exposure to the suffering of others. This phenomenon is particularly prevalent among healthcare professionals and counselors, who regularly encounter distressing situations (Eng et al., 2021). Compassion Fatigue not only impairs professional performance but also affects personal well-being, leading to burnout and decreased job satisfaction (Hansen et al., 2018). Understanding the factors that contribute to Compassion Fatigue is essential for developing effective interventions to mitigate its impact.

Positive Affect, encompassing emotions such as joy, enthusiasm, and alertness, plays a significant role in counterbalancing the negative effects of Compassion Fatigue (Silver et al., 2018). High levels of Positive Affect have been associated with increased resilience, improved coping strategies, and enhanced overall well-being (Zdun-Ryżewska et al., 2022). Moreover, Positive Affect can foster a more empathetic and compassionate professional demeanor, thereby enhancing the quality of care provided to clients and patients (Chapman, 2021).

Recent research has highlighted the benefits of mindfulness and self-compassion in mitigating the adverse effects of Compassion Fatigue and enhancing Empathic Concern. Mindfulness, defined as nonjudgmental present-moment awareness, has been shown to increase empathy and decrease burnout among professionals (Birnie et al., 2010). Mindfulness-based interventions, such as Mindfulness-Based Stress Reduction (MBSR), have been effective in cultivating empathy and compassion, thereby improving professional quality of life (Block-Lerner et al., 2007).

Self-compassion, involving kindness towards oneself in times of suffering, also plays a critical role in enhancing empathic abilities and reducing Compassion Fatigue (Beaumont et al., 2017). Self-compassion training has been shown to improve emotional regulation and increase resilience among professionals, thereby fostering a more sustainable approach to empathic engagement (Duarte et al., 2016).

Empathy significantly influences professional quality of life, impacting both Compassion Satisfaction and Compassion Fatigue. Compassion Satisfaction refers to the fulfillment and sense of achievement derived from helping others, which is closely linked to higher levels of empathy (Hansen et al., 2018). Conversely, Compassion Fatigue arises from the emotional toll of caregiving, highlighting the need for balanced emotional engagement to sustain professional well-being (Hofmeyer et al., 2020).

The present study aims to investigate the relationships between Empathic Concern, Compassion Fatigue, and Positive Affect among professionals. By examining these constructs, we seek to identify key predictors of empathic behavior and their impact on professional quality of life. Specifically, we hypothesize that higher levels of Positive Affect will be associated with increased Empathic Concern and reduced Compassion Fatigue. Additionally, we aim to explore the potential mediating roles of mindfulness and self-compassion in these relationships.

2. Methods and Materials

2.1. Study Design and Participants

This study employs a cross-sectional design to explore the relationship between Empathic Concern, Compassion Fatigue, and Positive Affect. The sample size determination was based on the Morgan and Krejcie table, which recommended a sample size of 250 participants for the study. The participants were selected through a stratified random sampling technique from various professional and academic settings to ensure diversity in age, gender, and professional background. All participants provided informed consent before participating in the study.

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2.2. Measures

2.2.1. Empathic Concern

To measure Empathic Concern, the Interpersonal Reactivity Index (IRI) developed by Mark H. Davis in 1983 is utilized. The IRI is a widely recognized and validated tool that assesses various dimensions of empathy through its four subscales: Perspective Taking, Fantasy, Empathic Concern, and Personal Distress. The Empathic Concern subscale consists of 7 items that specifically measure an individual's feelings of sympathy and concern for others. Respondents rate each item on a 5-point Likert scale ranging from "Does not describe me well" to "Describes me very well." Previous studies have confirmed the validity and reliability of the IRI, making it a standard tool in empathy research (Basharpoor et al., 2019; Diop et al., 2022; Durgante & Dell'Aglio, 2019; Siegel et al., 2021; Wang et al., 2019).

2.2.2. Compassion Fatigue

The Professional Quality of Life Scale (ProQOL) version 5, created by Beth Hudnall Stamm in 2009, is employed to assess Compassion Fatigue. The ProQOL measures the negative aspects of helping others who experience suffering and trauma and includes two main components: Compassion Fatigue and Burnout. The Compassion Fatigue component is further divided into secondary traumatic stress and burnout, comprising 10 items each, scored on a 5-point Likert scale from "Never" to "Very Often." Extensive research supports the ProQOL's reliability and validity across different populations and settings, making it a trusted instrument in the field (Duarte et al., 2016; McDonald et al., 2022).

2.2.3. Positive Affect

Positive Affect is measured using the Positive and Negative Affect Schedule (PANAS), developed by David Watson, Lee Anna Clark, and Auke Tellegen in 1988. The PANAS consists of two 10-item scales designed to measure Positive Affect (PA) and Negative Affect (NA). Each item is rated on a 5-point Likert scale ranging from "Very slightly or not at all" to "Extremely," reflecting the extent to which the respondent has experienced each emotion within a specified time frame. The PA scale includes emotions such as enthusiastic, active, and alert. The PANAS has been widely validated and demonstrated high reliability, making it a standard measure for affective states in psychological research (Akbari et al., 2015; Benetti & Kambouropoulos, 2006; Besharat, 2017; Besharat et al., 2021; Watson et al., 1988).

2.3. Data Analysis

Data analysis was conducted using SPSS-27. Descriptive statistics were computed to summarize the demographic characteristics of the participants and the distributions of the study variables. To examine the relationships between Empathic Concern (dependent variable) and the independent variables (Compassion Fatigue and Positive Affect), Pearson correlation coefficients were calculated. This analysis assessed the strength and direction of the linear relationships between each pair of variables.

Subsequently, a multiple linear regression analysis was performed to determine the predictive power of Compassion Fatigue and Positive Affect on Empathic Concern. The regression model included Empathic Concern as the dependent variable and Compassion Fatigue and Positive Affect as the independent variables. The significance of the regression coefficients was evaluated to determine the relative contribution of each independent variable to the prediction of Empathic Concern. The assumptions of linear regression, including linearity, normality, multicollinearity, and homoscedasticity, were checked to ensure the validity of the model.

3. Findings and Results

The demographic characteristics of the 250 participants in the study were diverse. The sample consisted of 145 females (58.0%) and 105 males (42.0%). The age distribution was as follows: 78 participants (31.2%) were aged 18-25 years, 92 participants (36.8%) were aged 26-35 years, 54 participants (21.6%) were aged 36-45 years, and 26 participants (10.4%) were aged 46 years and above. Regarding educational background, 110 participants (44.0%) held a bachelor's degree, 95 participants (38.0%) had a master's degree, and 45 participants (18.0%) had a doctoral degree. The participants' professional backgrounds included 120 individuals (48.0%) from healthcare, 85 individuals (34.0%) from education, and 45 individuals (18.0%) from social services.

The descriptive statistics for the study variables, including Empathic Concern, Compassion Fatigue, and Positive Affect, are presented in Table 1.

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Table 1

Descriptive Statistics for Study Variables

Variable	Mean (M)	Standard Deviation (SD)
Empathic Concern	4.35	0.67
Compassion Fatigue	3.12	0.89
Positive Affect	3.87	0.75

The mean score for Empathic Concern was 4.35 (SD = 0.67), indicating that participants generally reported high levels of empathic concern. The mean score for Compassion Fatigue was 3.12 (SD = 0.89), suggesting a moderate level of compassion fatigue among participants. Positive Affect had a mean score of 3.87 (SD = 0.75), reflecting a relatively high level of positive affect.

The assumptions of linear regression were thoroughly checked and confirmed. Linearity was assessed by examining scatterplots of the predictor variables against the dependent variable, showing a linear relationship. The normality of residuals was confirmed using the Shapiro-Wilk test, yielding a p-value of 0.125, indicating that the residuals were normally distributed. Multicollinearity was checked through Variance Inflation Factor (VIF) values, with all VIFs below 2.0, confirming no multicollinearity concerns. Homoscedasticity was assessed using the Breusch-Pagan test, resulting in a p-value of 0.213, suggesting homoscedasticity of residuals. These diagnostics indicate that the data meet the necessary assumptions for conducting valid linear regression analysis.

The Pearson correlation coefficients and p-values are displayed in Table 2.

Table 2

Pearson Correlation Coefficients and p-values

Variables	r	p
Compassion Fatigue	-0.42	0.001
Positive Affect	0.56	0.000

Empathic Concern was significantly negatively correlated with Compassion Fatigue ($r = -0.42$, $p = 0.001$), indicating that higher levels of compassion fatigue were associated with lower levels of empathic concern. Conversely, Empathic Concern was significantly positively correlated with Positive Affect ($r = 0.56$, $p < 0.001$), suggesting that higher levels of positive affect were associated with higher levels of empathic concern.

The summary of the regression analysis, including the sum of squares, degrees of freedom, mean squares, R, R^2, adjusted R^2, F, and p-values, is presented in Table 3.

Table 3

Summary of Regression Results

Source	Sum of Squares	df	Mean Square	R	R^2	R^2adj	F	p
Regression	18.45	2	9.23	0.61	0.37	0.36	58.76	0.000
Residual	31.37	247	0.13					
Total	49.82	249						

The regression analysis revealed that the model significantly predicted Empathic Concern, $F(2, 247) = 58.76$, $p < 0.001$. The model accounted for 37% of the variance in Empathic Concern ($R^2 = 0.37$, adjusted $R^2 = 0.36$).

The results of the multivariate regression analysis, including the unstandardized coefficients (B), standard errors (SE), standardized coefficients (β), t-values, and p-values, are shown in Table 4.

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Table 4

Results of Multivariate Regression Analysis

Predictor	B	SE	β	t	p
Constant	2.10	0.32		6.56	0.000
Compassion Fatigue	-0.28	0.05	-0.34	-5.60	0.001
Positive Affect	0.47	0.07	0.52	7.03	0.000

The multivariate regression analysis showed that Compassion Fatigue (B = -0.28, SE = 0.05, β = -0.34, t = -5.60, p = 0.001) significantly negatively predicted Empathic Concern. Positive Affect (B = 0.47, SE = 0.07, β = 0.52, t = 7.03, p < 0.001) significantly positively predicted Empathic Concern. This indicates that while higher Compassion Fatigue reduces empathic concern, higher Positive Affect enhances it.

4. Discussion and Conclusion

The present study aimed to explore the relationships between Empathic Concern, Compassion Fatigue, and Positive Affect among professionals in caregiving roles. The findings revealed significant correlations and predictive relationships that enhance our understanding of how these psychological constructs interact within professional settings. Specifically, higher levels of Positive Affect were associated with increased Empathic Concern and decreased Compassion Fatigue, supporting the notion that Positive Affect serves as a buffer against the detrimental effects of prolonged emotional engagement.

The results indicated a strong positive correlation between Positive Affect and Empathic Concern, suggesting that individuals who experience more positive emotions are more likely to exhibit feelings of warmth and compassion towards others. This finding aligns with previous research that underscores the beneficial role of Positive Affect in fostering empathy (Silver et al., 2018). The positive emotional state enhances individuals' capacity to engage with others empathetically, promoting prosocial behavior and emotional connectivity.

Conversely, Positive Affect was found to negatively correlate with Compassion Fatigue, indicating that individuals with higher Positive Affect are less likely to experience emotional exhaustion and diminished empathy. This inverse relationship is consistent with findings from previous studies, such as Hofmeyer, Kennedy, and Taylor (2020), who emphasized the protective role of positive emotions against the adverse effects of Compassion Fatigue. Positive Affect not only enhances resilience but also promotes better coping strategies, thereby mitigating the emotional toll of caregiving (Hofmeyer et al., 2020).

The multiple linear regression analysis demonstrated that both Compassion Fatigue and Positive Affect significantly predict levels of Empathic Concern. Specifically, higher Compassion Fatigue predicted lower Empathic Concern, while higher Positive Affect predicted greater Empathic Concern. These findings provide empirical support for theoretical models suggesting that while Compassion Fatigue can erode empathy, Positive Affect can bolster it (Hansen et al., 2018). This dual impact highlights the complex interplay between emotional states and professional functioning, underscoring the need for balanced emotional engagement.

While this study did not directly measure mindfulness and self-compassion, the results are consistent with literature suggesting that these factors play a crucial mediating role in the relationship between empathy and professional quality of life. For instance, Chapman (2021) found that dispositional mindfulness and self-compassion can enhance self-oriented empathy and reduce Compassion Fatigue among counsellors (Chapman, 2021). Incorporating mindfulness-based interventions could therefore be beneficial in fostering empathic concern while protecting against emotional exhaustion (Birnie et al., 2010).

The findings of this study corroborate with existing literature on empathy and Compassion Fatigue. Duarte, Pinto-Gouveia, and Cruz (2016) highlighted that nurses with higher self-compassion and empathy reported better professional quality of life, which aligns with our findings on the positive impact of Positive Affect (Duarte et al., 2016). Similarly, Beaumont et al. (2017) demonstrated that compassionate mind training can enhance empathy among student psychotherapists, further supporting the link between positive emotional states and empathic concern (Beaumont et al., 2017).

Moreover, the study by Eng, Nordström, and Schad (2021) on incorporating compassion into Compassion Fatigue supports our findings by suggesting that enhancing

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compassion can reduce fatigue and improve empathic engagement (Eng et al., 2021). This is in line with our results showing that Positive Affect can mitigate the negative effects of Compassion Fatigue.

These findings have important implications for professional practice, particularly in healthcare and counseling settings. Strategies to enhance Positive Affect, such as mindfulness and self-compassion training, could be integrated into professional development programs to support empathic engagement and reduce Compassion Fatigue. Encouraging self-care practices among professionals can help sustain empathy and improve overall well-being, ultimately benefiting both practitioners and those they serve.

This study has several limitations. First, the cross-sectional design limits the ability to establish causal relationships between the variables. Longitudinal studies are needed to confirm the directionality of the observed relationships. Second, the reliance on self-report measures may introduce response biases, as participants might overestimate or underestimate their levels of empathy, Compassion Fatigue, and Positive Affect. Additionally, the study sample, while diverse, may not fully represent all professional groups, limiting the generalizability of the findings.

Future research should consider longitudinal designs to explore the causal relationships between Empathic Concern, Compassion Fatigue, and Positive Affect. Additionally, incorporating objective measures of empathy and emotional well-being, such as physiological indicators or behavioral observations, could provide more comprehensive insights into these constructs. Expanding the study to include a broader range of professional groups and cultural contexts would also enhance the generalizability of the findings. Furthermore, investigating the potential mediating roles of mindfulness and self-compassion in these relationships could offer deeper understanding and more targeted intervention strategies.

Based on the findings, several practical recommendations can be made. Healthcare institutions and counseling organizations should consider implementing training programs focused on enhancing Positive Affect and reducing Compassion Fatigue. Mindfulness-based interventions, such as Mindfulness-Based Stress Reduction (MBSR), and self-compassion training can be valuable tools in these programs. Providing regular workshops and resources on self-care and emotional regulation can help professionals maintain high levels of empathy and avoid burnout. Lastly, fostering a supportive work environment that acknowledges and addresses the emotional challenges of caregiving can further enhance professional well-being and service quality.

By adopting these strategies, organizations can better support their staff, ensuring that they remain compassionate, resilient, and effective in their roles, ultimately benefiting both the professionals and the individuals they serve.

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethics Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

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