



OPEN Understanding the impact of expertise on compassion fatigue in counseling via core self-evaluation and resilience

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Compassion fatigue is a prevalent challenge experienced by helping professionals, influencing both their personal well-being and the quality of services they deliver. While the beneficial impact of expertise in counseling on alleviating compassion fatigue has been established, limited research has investigated this association specifically among mental health counselors within the cultural context of China. Additionally, the underlying mechanisms remain unclear. This study examined whether expertise in counseling can reduce compassion fatigue and whether this relationship is mediated by core self-evaluation and resilience. A cross-sectional survey of 109 mental health counselors revealed that expertise negatively predicted compassion fatigue both directly and indirectly through enhanced core self-evaluation. However, resilience only exhibited a negative correlation with compassion fatigue and a positive correlation with core self-evaluation, its mediating effect between expertise and compassion fatigue was not supported. This study highlights the crucial role of expertise and core self-evaluation as mediating factors in alleviating compassion fatigue.

Keywords Compassion fatigue, Expertise, Core self-evaluation, Resilience, Mental health counselors

Compassion fatigue, commonly experienced by professionals in helping roles, can have detrimental effects on their well-being and the quality of care they provide^{1–5}. In recent years, there has been a growing recognition of compassion fatigue in the field of mental health counseling, driven by the escalating demand for mental health services from the general public, particularly in developing countries like China⁶. Counselors, due to the emotionally demanding nature of their work, face a notable risk of compassion fatigue^{7,8}, where job burnout and secondary trauma manifest as primary symptoms^{3,9}. Given the challenges posed by compassion fatigue, it is crucial to prioritize preventive measures, considering its potential impact on counselor well-being and service quality. This study aims to investigate the impact of expertise in counseling on compassion fatigue. Additionally, it explores the potential mechanisms underlying these effects and examines the potential mediating roles of core self-evaluation and resilience. Specifically, our focus is on privately practicing counselors within the context of China. This group, facing challenges stemming from an imperfect social psychological service system and a lack of standardized licensing processes, exhibits significant variations in their levels of expertise^{10,11}. Consequently, they may encounter greater challenges related to compassion fatigue. The study seeks to explore the relationship between expertise and compassion fatigue, as well as the mediating roles of core self-evaluation and resilience.

As a common health risk factor in the helping community, compassion fatigue is primarily characterized by job burnout and secondary traumatization^{3,9}. Initially conceptualized within the nursing field¹², the study of compassion fatigue has since expanded to professionals in various healthcare-related fields. Extensive research has been conducted on compassion fatigue among healthcare providers^{13–16}, nurses^{4,17}, and physicians^{1,18}. Counselors also face a notable risk of compassion fatigue, magnified by the emotionally costing nature of their work^{7,8}. They are tasked with empathizing and displaying unconditional positive regard towards their clients, with the goal of fostering a robust therapeutic alliance and gaining profound insights into the clients' traumatic experiences^{8,19}. This empathic engagement comes at an emotional cost to counselors, placing them at the risk of compassion fatigue.

Previous research has suggested that expertise in counseling may play a crucial role in alleviating compassion fatigue. Expertise in counseling refers to the complex knowledge, skills, and experience accumulated by practitioners in their field^{20,21}. It is a comprehensive concept that is often used interchangeably with counseling

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competence²². A cross-sectional study of mental health provider found that high level expertise with more knowledge and training provide protection against the harmful effects of trauma exposure, which reduces levels of compassion fatigue and burnout⁵. A study on disaster-related interventions found that personnel with higher levels of expertise exhibited lower levels of posttraumatic stress disorder compared to less professional volunteers²³. According to the Job Demands-Resources model, expertise in counseling can be viewed as a resource that assist counselors in coping with job demands with clients' emotional issues and psychological distress, equips counselors with the capabilities and tools to manage these job demands²⁴. Empirical evidence has also supported the Job Demands-Resources model, indicating that expertise in counseling is beneficial for compassion fatigue. A qualitative study of psychological supervisors showed that expertise supervisors were adept at utilizing relational alliances, had more conflict management strategies, and resulted in a more satisfying supervisory experience²⁵. Recently, a longitudinal study involving 100 psychosocial emergency care personnel suggested expertise and competence as possible strategies for reducing stress from traumatic events²⁶. The evidence suggests that expertise in counseling equips professionals with advanced skills and strategies for managing the emotional demands of their work. Counselors with high expertise are better at setting boundaries, employing effective coping mechanisms, and utilizing supervision and peer support²⁷. These skills may help them manage their own emotional experiences and reduce the risk of compassion fatigue. In addition, with increased expertise, counselors are better able to differentiate their own emotions from those of their clients, thereby avoiding emotional exhaustion²⁴. Such expertise may potentially enhance counselors' ability to manage and prevent compassion fatigue.

However, previous research on the relationship between expertise and compassion fatigue has primarily focused on Western helping groups. It is worth noting that the counseling environment in China may differ from that of the West. First, mental health professionals in China face unique societal and contextual challenges. Rapid development has led to unprecedented social pressure, competition, and a fast-paced lifestyle, intensifying stress levels²⁸. The demand for counseling services has surged in recent years⁶, placing unprecedented pressure on counselors and increasing the risk of compassion fatigue. Second, there is a significant shortage of professional training and licensing systems. In 2017, China abolished the accreditation of national licensing certificates, leaving a gap in new certification standards and resulting in a lack of professional regulation and assurance for counselors. This disparity in expertise among counselors is considerable¹⁰. Third, cultural attitudes towards mental health in China, such as stigma, influenced by collectivism and *Mianzi* culture²⁹, affect how individuals seek and accept support. This can complicate counselor-client interactions, placing greater demands on counselors' expertise and potentially exacerbating compassion fatigue. Counselors in China face the challenge of managing growing workloads, addressing complex mental health issues, and meeting the diverse needs of clients³⁰. It is therefore valuable to explore the protective effect of expertise against compassion fatigue in the context of contemporary Chinese counseling practice.

The mechanisms underlying the impact of expertise on compassion fatigue have been understudied. Identifying these mechanisms is crucial for understanding their relationship and developing effective interventions to alleviate counselors' compassion fatigue. Notably, Core Self-Evaluation (CSE) has shown promise in facilitating coping with work-related stress and burnout. Grounded in the broader theoretical framework of self-efficacy and self-esteem, CSE was introduced by Judge et al. as a higher-order personality construct comprising self-esteem, generalized self-efficacy, locus of control, and neuroticism (reverse scored)^{31–33}. These traits collectively reflect individuals' core evaluation of their own worth, competence, control over outcomes, and emotional stability. CSE also shapes our perspective and influences our appraisal of external events and experiences³¹.

Empirical evidence consistently links CSE with expertise, specifically in fostering self-efficacy, self-esteem, and emotional stability^{5,34,35}. Studies on clinical physicians demonstrate that expertise enhance their self-efficacy beliefs⁵. In interdisciplinary early intervention services, providers with higher expertise exhibit greater emotional stability during mental health interventions, while novices may feel overwhelmed³⁵. Similarly, expertise development among pediatric rehabilitation therapists leads to diverse treatment approaches, supportive client interactions, and increased confidence in their abilities³⁴.

In addition, the core self-evaluation of counselors may play a crucial role in mitigating compassion fatigue. While direct research on the relationship between CSE and compassion fatigue is limited, there is substantial evidence exploring the association between CSE and various forms of burnout, indicating that CSE in negatively correlated with burnout and serves as a protective factor^{36–39}. For instance, McCrone found that high levels of CSE were associated with higher personal achievement and lower emotional exhaustion and depersonalization in a sample of licensed professional counselors³⁹. Bipp et al. observed a positive association between CSE and work engagement, as well as a negative association with burnout among employees³⁷. Similar findings were reported in a study of working mothers, where CSE was positively related to mental health and negatively related to emotional exhaustion from work³⁸. As job burnout is one dimension of compassion fatigue in this study³, the overlap between burnout and compassion fatigue suggests potential homogeneity between the two constructs. Therefore, the existing research on CSE and burnout may provide valuable insights into the potential role of CSE in understanding and alleviating compassion fatigue, highlighting the significance of CSE as a psychological resource to aid counselors in mitigating compassion fatigue.

Drawing from previous empirical evidence, we propose that core self-evaluation mediates the relationship between expertise and compassion fatigue among counselors. Building upon the work of³⁷, we agree that CSE serves as a personal resource, fostering the development of psychological and job-related resources. We posit that expertise likely enhances CSE, and high levels of CSE, characterized by elevated self-efficacy, self-esteem, internal locus of control, and emotional stability, are associated with decreased compassion fatigue.

A potential additional factor mediating the link between expertise and compassion fatigue is resilience. Resilience, as a psychological construct, refers to an individual's ability to adapt, cope, and bounce back from challenging situations^{40–42}. With the advancement of positive psychology⁴³, resilience has emerged as a

significant form of psychological capital⁴². Traditionally, resilience has frequently been examined within the context of stress coping in work environments⁴¹. Cree and McCulloch have reminded that given the importance of resilience, it can be used as a useful and optimistic concept to understand human behaviour and experiences⁴⁴.

According to Conservation of Resources Theory⁴⁵, resource loss can lead to a cycle of resource depletion, as individuals may experience heightened stress and reduced capacity to deal with challenges from work and life. In contrast, individuals who possess ample resources are indeed less susceptible to the risk associated with resource depletion⁴⁶. In this context, personal resources serve as protective factors. Having an abundance of resources provides a buffer against the negative consequences of resource loss.

Empirical evidence consistently supports the relationship between resilience as a psychological resource and compassion fatigue. Studies have shown a negative association between resilience and compassion fatigue among trauma responders⁴⁷, nurses^{26,48}, and clinical nurses⁴⁹. Resilience has been identified as a protective factor against secondary traumatization and compassion fatigue in high-risk occupations and emergency care volunteers⁵⁰. These findings highlight that individuals with higher resilience levels are better equipped to manage emotional stress and workplace challenges, thereby reducing the likelihood of experiencing compassion fatigue. Regarding the relationship between expertise and resilience, while quantitative research specifically examining this link in the context of counseling is limited, the importance of fostering and maintaining resilience among counselors and other healthcare professionals is well-documented⁵¹. Developing resilience and confidence is crucial in training counselors to become competent practitioners⁵². Additionally, several qualitative studies have explored the connection between clinical experience and resilience among care professionals. For instance, Edward found a strong correlation between experience levels and resilience in crisis care and community mental health workers⁵³. Clark noted that good clinical training, positive clinical experiences, and integrating self-care into counseling practice help building resilience in counselors⁵⁴. Zheng also found a positive correlation between years of clinical work experience and resilience among mental health nurses. It is advised that caring professionals promote resilience by maximizing their professional skills⁵⁵. Thus, we expected that higher expertise in counselors would enhance resilience, thereby buffering against compassion fatigue. In other words, resilience mediates the link between expertise and compassion fatigue.

Although both CSE and resilience are associated with compassion fatigue and expertise, the nature of the relationship between these two variables has not been adequately examined, particularly within the counseling profession. Most previous studies have focused on occupational contexts, and have found a positive association between CSE and resilience^{56,57}, and CSE contribute to the increase of resilience⁵⁸. However, little is known about these variables in relation to counselors. This study aims to investigate the predictive relationship between CSE and resilience, considering their potential role in mitigating compassion fatigue.

Drawing on Social Cognitive Theory, which emphasizes individuals' active interaction with their environment through cognitive processes, we hypothesize that high CSE with strong sense of self-efficacy promotes the development of resilience. Considering the association between CSE and compassion fatigue mentioned earlier, it is further hypothesized that CSE and resilience sequentially mediate the relationship between counseling expertise and compassion fatigue. Individuals with positive core self-evaluations may exhibit greater psychological resilience, better self-care practices, and a reduced likelihood of experiencing compassion fatigue.

In summary, existing research primarily focuses on the relationship between expertise and compassion fatigue in Western helping groups, neglecting the distinct context of Chinese counseling. Additionally, the mechanisms through which expertise impacts compassion fatigue remain understudied, hindering the development of effective interventions. Through this study, we aim to examine the relationship between counseling expertise and compassion fatigue, as well as shed light on the potential pathways through which expertise can alleviate compassion fatigue. By examining the roles of core self-evaluations and resilience, we seek to better understand the underlying mechanisms that contribute to the relationship between expertise and the experience of compassion fatigue. The findings of this study have implications for the professional development of counselors, as well as for the design of interventions and support systems aimed at promoting counselor well-being and enhancing the quality of care provided to clients.

Based on prior research, we propose the following hypotheses, as depicted in Fig. 1:

Hypothesis 1 There is a direct relationship between expertise in counseling and compassion fatigue (total effect, c).

Hypothesis 2 Core self-evaluation (CSE) mediates the relationship between expertise in counseling and compassion fatigue (indirect effect a1b1).

Hypothesis 3 Resilience mediates the relationship between expertise in counseling and compassion fatigue (indirect effect a2b2).

Hypothesis 4 There is a serial mediation effect of expertise in counseling on compassion fatigue, first through CSE and then through resilience (sequential mediation effect a1d21b2).

Methods

Participants

A snowball sampling technique was utilized to obtain a sample of 109 counsellors affiliated with provincial psychological associations. The sample consisted of 88 female (80.7%) and 21 male (19.3%) participants with diverse educational backgrounds, including 15 (13.8%) with associate degrees or below, 75 (68.8%) with bachelor's degrees, and 19 (17.4%) with master's degrees or above. Among the participants, 41 (37.6%) engaged in counseling full-time and 68 (62.4%) as part-time. Additionally, 65 (60%) received supervision, while 44

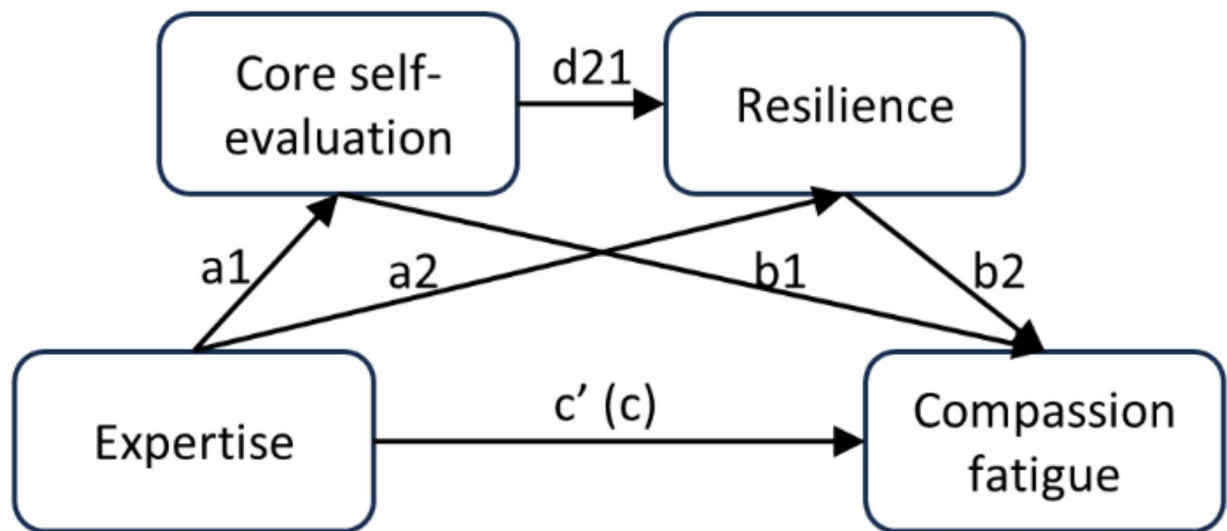


Fig. 1. Conceptual Framework.

(40%) did not. Moreover, 32 (29.4%) acted as a supervisor, and 77 (70.6%) did not supervise other counselors. Regarding experience, 51 (46.8%) had less than 5 years of practice, 41 (37.6%) had 6–10 years, and 17 (15.6%) had more than 10 years' experience. In terms of caseload, 67 (61.5%) saw less than 5 clients per month, 22 (20.2%) saw 6–10 clients per month, and 20 (18.3%) saw more than 10 clients per month.

Measures

Expertise in counseling

Previous research has primarily used qualitative methods, such as peer rating²⁵, supervisor and patient ratings⁵⁹, interviews^{25,34,60}, audio or video recordings or live observation of therapy sessions⁵⁹, and self-report of attitudes towards one's own professional competence²⁶, to assess expertise in counseling field. However, objective quantitative indicators are lacking. Drawing upon discussions on expertise and professional development in counseling^{61–63}, we operationalize expertise in counseling as a composite indicator by synthesizing multiple objective measures, similar to the approach used for the social economic status (SES) index. This study incorporates five indicators to assess expertise: educational background, supervision experience (receiving and providing), years of practice, and caseload. Professional affiliation and certification are also notable factors. However, we did not include them in our study due to the suspension of professional accreditation since 2017 and the absence of new accreditation standards in China. As for affiliation, each participant is affiliated with provincial psychological associations, indicating no significant difference. Hence, these variables were omitted from our analysis.

Educational background is categorized into three levels: “associate’s college or below”, “bachelor’s degree”, and “master’s degree or above”, assigned values of 1 to 3, with higher scores indicating higher educational levels. Receiving supervision and providing supervision are both dichotomized as “no” and “yes”, with values of 1 and 2, respectively. A score of 1 indicating no experience in receiving or providing supervision, while a score of 2 represents experience in receiving professional supervision or providing supervision to other counselors. Each aspect is treated as a separate indicator in the analysis. Years of practice are divided into three levels: “less than 5 years”, “6–10 years”, and “more than 10 years”, assigned values of 1 to 3, with higher scores indicating longer practice experience. Caseload is categorized as “1–5 cases per month”, “6–10 cases per month”, and “more than 10 cases per month”, assigned values of 1 to 3, with higher scores indicating a higher workload.

Principal Component Analysis (PCA) was conducted to create a composite measure of expertise by combining the five indicators. Firstly, the indicators were transformed into standardized scores. Next, the suitability of the data for PCA was assessed using the Kaiser-Meyer-Olkin (KMO) measure and Bartlett’s test of sphericity⁶⁴. The KMO value was found to be 0.638, indicating that the data met the requirements for PCA. Additionally,

the Bartlett's test of sphericity yielded a significant result (Chi-Square = 104.376, $p < 0.001$), further supporting the suitability of the data for PCA. The PCA analysis revealed two main factors with eigenvalues greater than 1, labeled as Fac1 and Fac2. These factors accounted for 39.04% and 27.22% of the variance, respectively. Together, they cumulatively explained 66.27% of the variance. The factor loadings, calculated based on the percentage of variance explained, were 0.589 for Fac1 and 0.411 for Fac2. Finally, the composite measure of expertise in counseling was calculated using the following formula:

$$\text{Expertise in counseling} = 0.589 * \text{Fac1} + 0.411 * \text{Fac2}.$$

Higher scores on the composite measure indicate a stronger level of expertise. In this study, the expertise scores ranged from -1.08 to 1.66 , with a mean of 0 and a standard deviation of 0.718.

Compassion fatigue

The Chinese version of Compassion Fatigue Short-Scale (CFSS) was used to assess compassion fatigue. The CFSS, originally developed by Adams et al.⁶⁵ and adapted into Chinese by Du⁶⁶ consists of 11 items divided into two subscales: the job burnout subscale (7 items) and the secondary trauma subscale (4 items). Participants rated the frequency of experiencing the described scenarios in their work using a 10-point scale ranging from 1 (*rarely/never*) to 10 (*always*). Higher scores indicate higher levels of compassion fatigue. The subscale and total scores were calculated by summing the item scores. The internal consistency of the scale and subscales in this study were satisfactory, with Cronbach's alpha coefficients of 0.94 for the total scale, 0.91 for the job burnout subscale, and 0.89 for the secondary trauma subscale.

Core self-evaluation

Core self-evaluation was measured using the Psychological Counselor's Core Self-evaluation Scale⁶⁷, which is based on the construct and measurement model proposed by Judge et al.^{31,33}. This scale consists of 20 items (e.g., "I often reflect on the problems I have encountered in my work and life"). Participants rated the items on a 5-point scale ranging from 1 (*completely disagree*) to 5 (*completely agree*). In this study, the total score was used, and its Cronbach's alpha coefficient was 0.88.

Resilience

Resilience was measured using the Chinese version of the Connor and Davidson Resilience Scale (CD-RISC)⁶⁸. Originally developed by Connor and Davidson⁶⁹ for individuals with post-traumatic stress disorder (PTSD) in American, the scale was later revised by X. Yu and Zhang⁶⁸ to align with the Chinese cultural context. The CD-RISC assesses positive psychological qualities that facilitate adaptation to adversity, with 25 items covering three dimensions: tenacity, strength and optimism. Participants rated each item on a 5-point Likert scale, ranging from 1 (*completely disagree*) to 5 (*completely agree*). The Chinese version of CD-RISC demonstrated good reliability and validity, showing positive correlations with self-esteem ($r = 0.49$) and life satisfaction ($r = 0.48$)⁶⁸. In the present study, the Cronbach's alpha coefficient was 0.96, indicating good internal consistency.

Procedures and ethical considerations

Procedures and ethical considerations were followed to protect participants' rights and maintain study integrity. A survey-based quantitative research design was used to examine expertise in counseling, core self-evaluation, resilience, and compassion fatigue among counselors in private practice in China. Participants were recruited through a snowball sampling technique via the provincial psychological association, and 109 counselors voluntarily participated in the study with written informed consent. The survey questionnaire was administered online, assuring participants that their data would be used solely for academic research and kept confidential and anonymous. The survey was designed with mandatory responses for all core variables, ensuring that there were no missing values for these key measures. Demographic information was optional and could be left unanswered. For cases with missing demographic information, we did not perform any imputation and instead excluded these cases from analysis. This study was approved by the Human Ethics Committee of Taylor's University. All procedures followed relevant guidelines, including the Declaration of Helsinki, and informed consent was obtained from all participants.

Data analysis

Data analysis was conducted using SPSS 26.0 and the PROCESS macro developed by Hayes⁷⁰. In the initial step, descriptive statistics and correlation analysis were performed with SPSS 26.0 to investigate the relationships among the variables of interest. In the second step, we assessed the multicollinearity between the predictor variables by calculating the variance inflation factor (VIF) and tolerance (Tol) values before conducting the mediation effects analysis. Then, the PROCESS macro was employed to examine the potential mediating effects within the proposed conceptual framework. Gender was included as a covariate in all the models.

Results

Descriptive statistics

The mean total compassion fatigue score for the sample was 35.37, with job burnout and secondary trauma mean scores of 22.83 and 12.54, respectively. According to the scoring guidelines⁷¹, the total scores between 11 and 43 indicate low levels, 44–76 indicate moderate levels, and 77–110 indicate high levels of compassion fatigue. Thus, the sample in this study exhibited relatively low levels of compassion fatigue. This level is lower than those reported for other healthcare professionals, such as 60.61 for nurses⁷¹, 44.99 for nursing interns⁷², and 36.71 for hospice nurses⁷³. However, compared to the 2016 data for this population ($M_{CF} = 24.66$, $M_{jb} = 16.27$, $M_{sts} = 8.38$)⁶⁶, there has been an increase in scores for job burnout, secondary trauma, and overall compassion fatigue.

Variables	M(SD)	Cronbach's α	1	2	3	4	5	6
1 Expertise	0(0.72)	0.71	—					
2 CSE	76.14(11.14)	0.92	0.22*	—				
3 Resilience	97.73(14.83)	0.96	0.17	0.84**	—			
4 Compassion fatigue	35.37(19.26)	0.94	−0.33**	−0.48**	−0.35**	—		
5 Job burnout	22.83(12.31)	0.91	−0.34**	−0.52**	−0.39**	0.97**	—	
6 Secondary trauma	12.54(7.84)	0.89	−0.28**	−0.37**	−0.23**	0.93**	0.82**	—

Table 1. Expertise, CSE, Resilience, and Compassion fatigue correlations. Note: CSE core self-evaluation, * $p < 0.05$, ** $p < 0.01$.

Dependent variable	Predictor	R^2	F	β	t
Compassion fatigue		0.109	6.476**		
	Gender			−0.015	−0.159
	Expertise			−0.329	−3.588**
CSE		0.066	3.739*		
	Gender			0.129	1.370
	Expertise			0.218	2.318*
Resilience		0.710	85.565***		
	Gender			0.043	0.809
	Expertise			−0.014	−0.257
	CSE			0.838	15.412***
Compassion fatigue		0.297	10.977***		
	Gender			0.033	0.402
	Expertise			−0.232	−2.745**
	CSE			−0.594	−3.867***
	Resilience			0.189	1.236

Table 2. Regression analysis Summary. Note: CSE core self-evaluation, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

The correlations among expertise in counseling, core self-evaluation, resilience, and compassion fatigue are presented in Table 1. Expertise exhibited a significant positive correlation with core self-evaluation ($r = 0.22$, $p < 0.01$), while demonstrating negative correlations with compassion fatigue, job burnout, and secondary trauma ($r = -0.33$, -0.34 , and -0.28 , respectively, $p < 0.01$). Additionally, core self-evaluation was negatively associated with compassion fatigue, job burnout, and secondary trauma ($r = -0.48$, -0.52 , and -0.37 , respectively, $p < 0.01$), while showing a strong positive correlation with resilience ($r = 0.84$, $p < 0.01$). In line with expertise and core self-evaluation, resilience also displayed negative relationships with compassion fatigue and job burnout ($r = -0.35$ and -0.39 , respectively, $p < 0.01$) and a negative correlation with secondary trauma ($r = -0.23$, $p < 0.05$).

Multicollinearity diagnostics

The correlation analysis results indicated a high correlation (greater than 0.7) between core self-evaluation (CSE) and resilience, suggesting potential multicollinearity. To investigate this, we conducted additional diagnostics by calculating the Variance Inflation Factor (VIF) and tolerance (Tol) values for these variables. According to diagnostic criteria⁷⁴, a VIF value greater than 10 (or more strictly, greater than 5) and a tolerance value less than 0.1 (or more strictly, less than 0.2) indicate severe multicollinearity.

In this study, the Tol values for all predictor variables (CSE, resilience, and expertise) were greater than 0.2, and the VIF values were less than 5, suggesting that there is no severe multicollinearity issue in this data.

Mediation analyses

The mediation model was tested using Model 6 in the PROCESS macro⁷⁰. Due to the smaller sample size and the data not following a standard normal distribution, the PROCESS macro, which employed a bootstrap method, is a robust alternative that does not rely on the assumption of normality or a large sample size^{70,75}. Gender was included as a control variable in the analysis. As hypothesized, expertise in counseling negatively predicted compassion fatigue (path c: $\beta = -0.329$, $p < 0.01$). Additionally, expertise positively predicted core self-evaluation (CSE) (path a1: $\beta = 0.218$, $p < 0.05$). CSE positively predicted resilience (path d21: $\beta = 0.838$, $p < 0.001$). However, the direct effect of expertise on resilience was not significant (path a2: $\beta = -0.014$, $p > 0.05$). When simultaneously entered into the regression equation, both expertise (path c': $\beta = -0.232$, $p < 0.01$) and CSE (path b1: $\beta = -0.594$, $p < 0.001$) exhibited significant negative predictions on compassion fatigue, whereas resilience did not significantly predict compassion fatigue (see Table 2).

Model pathways	Effect	BootSE	95% BootCI
Total indirect effect	-0.098	.050 ^a	[-0.222, -0.021]
Expertise \diamond CSE \diamond CF	-0.129	.069 ^a	[-0.289, -0.017]
Expertise \diamond resilience \diamond CF	-0.003	0.016	[-0.045, 0.021]
Expertise \diamond CSE \diamond resilience \diamond CF	0.034	0.042	[-0.053, 0.118]

Table 3. Mediation analyses – expertise’s Indirect effects on Compassion fatigue via CSE and Resilience. Note. CSE core self-evaluation, CF compassion fatigue, ^aEmpirical 95% confidence interval does not include zero.

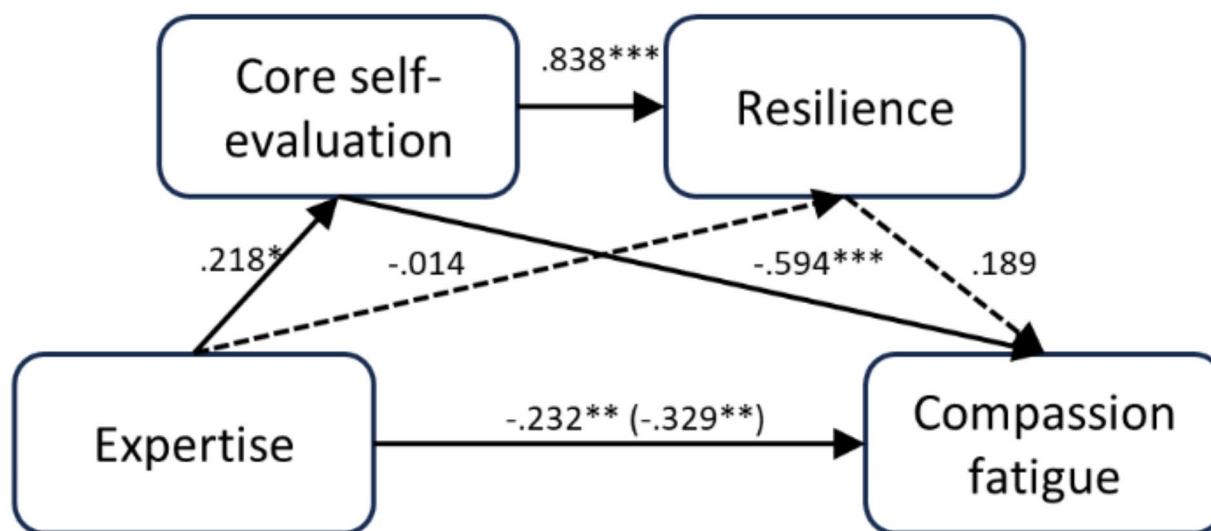


Fig. 2. Mediation Analysis of Expertise on Compassion Fatigue Through Core Self-Evaluation and Resilience. Standardized coefficients were presented, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

The investigation of the indirect effects of expertise on compassion fatigue was conducted through a bootstrapping analysis with 5000 resamples and a 95% confidence interval. This analysis allowed us to examine the mediation of both CSE and resilience in the relationship between expertise and compassion fatigue. The analysis of the indirect effects in the mediation model, along with the corresponding path diagram (Table 3; Fig. 2), are presented below.

The total indirect effect of expertise on compassion fatigue was found to be significant, with a bootstrap 95% confidence interval of [-0.222, -0.021]. Specifically, the bootstrap 95% confidence interval for the indirect effect of CSE was [-0.289, -0.017], and it did not include zero, indicating a significant mediating effect of CSE in the association between expertise and compassion fatigue.

However, the bootstrap 95% confidence intervals for the independent mediation effect of resilience, and the sequential mediation effects of CSE and resilience were [-0.045, 0.021] and [-0.053, 0.118], respectively. Both of these intervals included zero, suggesting that the independent mediation effect of resilience, as well as the sequential mediation effects of CSE and resilience, were not found to be significant in the relationship between expertise and compassion fatigue.

Discussion

This present study addressed a critical question: whether the expertise of counselors is associated with reduced compassion fatigue in the current Chinese counseling profession, and if so, what are the underlying mechanisms. We employed a cross-sectional survey design to examine the impact of expertise on compassion fatigue and tested the mediating roles of core self-evaluation and resilience.

Consistent with previous research findings^{5,23,26}, this study provides support for the notion that higher levels of expertise among counselors can reduce compassion fatigue. The concept of expertise in the field of mental health counseling is multifaceted²¹, encompassing not only general knowledge and specific therapeutic-related knowledge and skills⁷⁶, but also various abilities that can facilitate therapeutic outcomes, such as conflict resolution strategies, empathic capacity, self-correction, and overcoming obstacles²². Consequently, higher counseling expertise implies stronger empathic abilities, a greater repertoire of conflict resolution strategies, and enhanced stress coping and self-regulation techniques, thus potentially leading to reduced levels of compassion fatigue. This study extends the understanding of the role of expertise in alleviating compassion fatigue beyond medical-related groups to the psychological counseling profession, specifically within the cultural context of China. Although the results of this study indicate lower compassion fatigue levels among counselors compared to doctors and nurses^{71–73}, the rapid societal transformations in China and increasing demand for psychological counseling services may raise counselors' stress levels and pose a greater risk of compassion fatigue in the future. As Xu et al.⁶ argued, China's mental health service system still suffers from a significant shortage of well-trained and dedicated personnel, indicating that this counseling professional in China is still in its early stages of development⁷⁷. The lack of a comprehensive certification and training system also leads to varying levels of expertise among professionals^{6,10}, emphasizing the relevance of enhancing expertise in addressing the challenges within the contemporary Chinese counseling profession.

Based on social cognitive theory and conservation of resources theory, we examined the indirect of expertise on compassion fatigue through the mediating roles of core self-evaluation and resilience. Our findings revealed that core self-evaluation mediated the relationship between expertise in counseling and compassion fatigue. Increased expertise would enhance individuals' core self-evaluation, which, in turn, reduced the levels of compassion fatigue. These results are consistent with prior research showing a positive association between expertise and core self-evaluation^{5,34,35}, as well as negative relationship between core self-evaluation and work-related burnout^{36–39}. Core self-evaluation, as a broader self-evaluation construct, encompasses individuals' overall assessments of their self-worth, competence, and capabilities, influencing their thoughts, emotions, and behaviors across various life domains⁷⁸. Within Bandura's theoretical framework⁷⁹, it is reasonable to propose that individuals with high core self-evaluation are more likely to have positive self-views, feel confident in their abilities, and hold favorable evaluations of their self-worth. These positive self-evaluations contribute to a reduced risk of work-related stress, including compassion fatigue. Additionally, performance accomplishments, one of the pathways to enhance self-efficacy beliefs, also play a role in shaping individuals' overall self-evaluations, and a counselor's expertise is a guarantee of their performance accomplishments. Thus, expertise brings about an increase in their overall core self-evaluation, which in turn wards off potential stress and burnout at work.

Consistent with previous research findings^{47–49}, this study also demonstrated significant negative correlations between resilience and compassion fatigue among counselors, and positive correlations between resilience and core self-evaluation. However, no significant correlation was observed between resilience and expertise. Furthermore, the mediating role of resilience between expertise and compassion fatigue was not supported in our analysis. This finding may be attributed to the fact that resilience, as a positive psychological resource, is influenced by a combination of genetic, environmental, and individual environment interactions^{80–82}. Personal experience, especially adverse experiences, workplace stress, personality traits, and self-care⁸³ are critical factors shaping resilience. Additionally, according to the Conservation of Resources Theory⁴⁵, the excessive empathetic demands in the counseling profession can deplete individual psychological resources, and resilience, as a form of psychological resource, can also be depleted during the counseling process⁴⁶. Therefore, the enhancement of expertise may not necessarily lead to an increase in individual resilience, suggesting that the promotion of resilience should be considered from broader dimensions. However, it is important to note that although the mediating role of resilience between expertise and compassion fatigue was not confirmed, the significant negative correlation between resilience and compassion fatigue still highlights its potential protective role against compassion fatigue.

This study highlights the critical role of expertise in counseling in reducing compassion fatigue among mental health counselors in China. Scientifically, our findings contribute to the existing literature by providing empirical evidence of the relationship between expertise, core self-evaluation, and compassion fatigue in the Chinese cultural context. In practice, this highlights the importance of enhancing professional training and continuing education for counselors to meet the challenges facing the contemporary Chinese counseling profession. In addition, the significant mediating role of core self-evaluation suggests the need for interventions to improve counselors' self-perceptions and self-worth to alleviate compassion fatigue². Ensuring counselors' well-being will in turn facilitate the provision of optimal care for clients.

Limitations and future directions

Several limitations should be acknowledged in this study. Firstly, the data were collected using a cross-sectional design, which limits our ability to establish causality in the relationship observed. Longitudinal studies would be beneficial in providing more robust evidence of the temporal associations between expertise, core self-evaluation, resilience, and compassion fatigue. Secondly, the sample primarily consisted of counselors affiliated with provincial psychological associations, which may not fully represent the entire counseling profession in China. Therefore, caution should be exercised when generalizing the findings to other counselor populations. Additionally, the self-report nature of the measures used in this study may introduce response bias, and future research could benefit from incorporating mix measures to complement the self-reported data. Lastly, the covariation but non-predictive relationship between resilience and compassion fatigue observed may suggest the presence of variables potentially related to both but not identified by this study. Future research could further explore the underlying mechanisms associated with these variables.

Conclusions

In summary, this study advances the understanding of expertise in mitigating compassion fatigue within the realm of mental health counseling in China. Extending beyond traditional medical contexts, our findings support the hypothesis that increased expertise correlates with reduced compassion fatigue. Core self-evaluation partially mediates this relationship. However, the direct effect of expertise on resilience was not found to be significant, and the sequential mediation effects of core self-evaluation and resilience did not fully explain the relationship between expertise and compassion fatigue. Future research should further explore the potential mechanisms underlying resilience and compassion fatigue in counseling settings.

Data availability

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

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Author contributions

Z.W. was primarily responsible for data collection and initial analysis, S.H. contributed significantly to the remainder of the work, including further analysis and interpretation of the data, as well as drafting and revising the manuscript. Both authors approved the final version of the manuscript for submission.

Declarations

Competing interests

The authors declare no competing interests.

Ethical approval

The studies involving human participants were reviewed and approved by the Human Ethics Committee of Taylor's University. Informed consent was obtained from all participants included in the study.

Additional information

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