

# The Prevalence and Related Factors of Compassion Fatigue Among Chinese Nurses: A Literature Review

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**Abstract:** Compassion fatigue refers to fatigue, depression and a decline in empathy caused by prolonged exposure to the stress of people being served. Research regarding compassion fatigue in western countries has been well researched and results demonstrate that compassion fatigue of medical workers, especially nurses is getting growing attention. Compassion fatigue affects nurses' psychology which in turn affects the quality of nursing care. Limited research has been carried out in China focusing on the topic of compassion fatigue. This study aims to determine the prevalence and related factors of nurses' compassion fatigue in a tertiary hospital in Southwest China. This literature review introduces in detail how the literature search was carried out and identifies three themes emerging from the included articles. This review identifies current knowledge relating to CF, identifies the related factors affecting CF (working time, job content and working environment) and finally discusses future research directions. Research on related factors and the intervention measures of CF is very limited so far, therefore, future research aims to carry out similar investigations in different regions in China on a larger scale so as to help people identify the signs of CF in a timely manner and deal with this diagnosis effectively. The development of this study will enhance the attention of nurses and their managers to the concept of compassion fatigue, reducing its association factors and adverse effects.

**Keywords:** Compassion Fatigue, Prevalence and Related Factors, Chinese Nurses

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## 1. Introduction

Compassionate fatigue (CF) is defined by Figley [1] as fatigue, burnout and even dysfunction, caused by long-term exposure to the stress of the injured person and is characterized by fatigue, irritability, depression and decreased empathy. The term CF was first used in the 1980s by Lynch and Lobo [2] after reviewing the historical development of the concept of CF, Figley [3] studied a Vietnam soldier from the year 1971. This soldier felt guilty for not doing enough for others in the war. Doctors diagnosed the soldier with post-traumatic stress disorder because it was related to events during the war. The diagnosis is also synonymous with CF. After understanding another person's events, one's own behavior and emotion can then also be affected by these events [1, 2, 4]. Some years later CF was used to explain the challenges faced by

healthcare workers, however, there was no definite concept at that time. Figley initially called it "burnout" or "secondary injury". After ten years of research, many professionals discussed sadness, depression and anxiety symptoms finally linking these with the work environment [1]. Since then, CF has been used to understand the emotions of professionals. In 2002, Figley defined the CF of nurses as the continuous attention and tension to trauma patients, resulting in avoidance, numbness and trauma to the related needs of patients [3]. Many researchers have found that compassion fatigue is common among nurses [4-8]. The existence of compassion fatigue would seriously affect the working state, physical and mental health of nurses [4-8]. Through the study of compassion fatigue and its related concepts, which could remind nurses and managers to pay attention to the occurrence of it so as to avoid the related adverse effects.

## 2. Background

Health care and community service personnel, especially nurses, face a lot of pressure in their work environment and personal lives. These pressures include high workload, high concentration levels in their everyday working environment and the additional care needs of a family after work [5]. All of these are the factors associated with the professional life of nurses [6–8]. The aim of this literature review is to focus on the current research in relation to CF, integrate further knowledge to determine the related factors of CF and evaluate effective interventions to protect this high-risk population. It could not only help people who are at risk of developing CF, but also in preventing some consequences associated with CF such as health and economic problem. Therefore, the aim of this literature review is: 1) To explore the research related to CF; 2) To determine the related factors of CF.

According to the health belief model by Rosenstock, Stretcher and Becker's [9], human behavior is the external manifestation of psychological activities. Psychological consciousness would control the behaviors of normal people. Perception, attitude and belief are the most direct psychological activities that determine people's behavior. The idea of the Health Belief Model (HBM) is to change people's behavior by intervening people's cognition, attitude and belief [9]. People's education and values guide us to express sympathy and to help others when they are in need and nurses take care of those who require help. At the same time, when nurses feel unhealthy, they should also ask for help, both psychologically and physically. When faced with the patient's experiences, nurses would involuntarily express their own concern and sympathy. When sympathy exceeds a certain level, this can lead to emotional collapse. The HBM will guide this research and attempt to educate and enable nurses to develop a number of coping strategies that will aim to prevent

the prevalence of compassion fatigue and its associated factors.

## 3. Search Strategy

A systematic search of the following databases was conducted - CINAHL, Academic Search Complete, PubMed, Health Source: Nursing Academic Edition and Science Direct using Medical Subject Headings (Me SH). In order to avoid incorrect retrieval, the author confirmed the search strategy with the librarian. Keywords included compassion fatigue, compassion satisfaction, burnout, secondary traumatic stress and vicarious traumatization. The search was limited to English language and peer-reviewed articles between January 2011 and December 2020 using Boolean logic operators to combine search terms. The reference list of articles included for analysis were also searched for more comprehensive information. A total of 1081 articles were retrieved at the beginning, and 19 articles were finally included in the analysis by filtering repeated articles and title and abstract content.

## 4. Results

Initially 957 articles were retrieved, following duplicate removal and title and abstract review, 19 articles were included for full text analysis (PRISMA Flow Diagram). The majority of studies retrieved were quantitative were reported at 76.3% (14/19), including 10 (52.6%) cross-sectional studies and four (21%) longitudinal studies. Eight studies focused on the status of CF, 17 studies (89.4%) focused on the related factors of CF and six studies (31.5%) focused on the intervention factors related to CF, two of which had significant positive effects on CF. 18 studies (94%) used the ProQOL scale in which two of these studies used the Chinese version [10] and one used the Korean version [10].

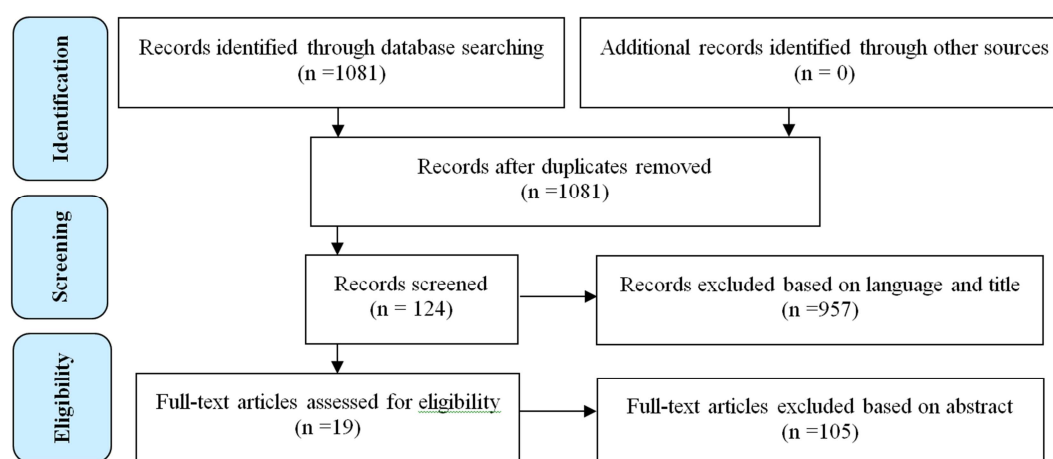


Figure 1. PRISMA Flow Diagram.

The Professional Quality of Life scale (ProQOL) is a tool for measuring a person's professional quality of life through positive and negative elements at work proposed by Stamm [10]. It is measured using three sub scales: Burnout (BO), Secondary Traumatic Stress (STS) and Compassion

Satisfaction (CS). BO is defined as difficulty and despair feeling when a task is not done as required. These negative emotions are usually cumulative. It could be caused by losing the additional peer support that people receive in their workplace or by not achieving the desired results following

the input of time and energy. STS refers to secondary stress caused by experiencing an extremely traumatic event related to work with symptoms including abnormal mood and abnormal levels of fear. CS refers to the satisfaction gained from undertaking high-quality work and achieving good results. For example, the nurse can feel valuable when patients are discharged from hospital with the knowledge that they have received the best possible care [10].

Following and in-depth review of the literature, three prevalent themes that have emerged will be discussed as part of this review: 1) Prevalence of compassion fatigue; 2) Related Factors to compassion fatigue; 3) Interventions for compassion fatigue.

#### **4.1. Prevalence of Compassion Fatigue**

A systematic review undertaken from 1999 to 2012 focusing on the measurement of CF by Nimmo and Huggard [4] demonstrated that research regarding CF is very limited. There are some similar concepts, namely BO and STS, which make it difficult for people to distinguish between these terms and that of CF [4]. With the concept of CF becoming clearer, increased research in this area is now being undertaken. However, there are still some populations with limited research data, such as respiratory therapists and physiotherapists [11]. In order to identify and analyze the literature concerning CF among medical service providers, a literature search publication from 2005 to 2015 was conducted by Sorenson, et al. [11]. A preliminary search yielded 307 articles, of which 43 were selected for analysis. 86% of Emergency Department nurses was found a high CF score using ProQOL questionnaire, which may be related to a lack of support from ward managers. In addition, 30% of pediatric nurses had high levels of BO and 27% also had high levels of CF. These results indicate that CF and its related concepts are widespread and common problems in clinical environment [11]. Van Mol, et al. [12] systematically searched the literature related to CF of ICU medical staff during 1992-2014, 40 articles were included in the analysis with results showing that CF in ICU workers ranged between 7.3% and 40%.

Researchers in many countries have begun to pay more attention to CF and a series of studies have been carried out according to their own understanding [8, 13, 14]. With increasing numbers of nursing staff now facing CF, this should provoke the attention of the relevant departments in helping the victims to find the root cause and aim to fundamentally solve these problems [14, 15]. The Greek researcher Katsantoni, et al. [14] distributed The ProQOL [10] to investigate the status of CF in 121 nurses and midwives from three public hospitals. The average age of samples was 37.3 years and 96.7% of them were female. This result showed that 65.3% of the staff would not recommend their children to take nursing / midwifery as their occupation, with 54.5% showing moderate burnout and 73.9% of the participants at high risk of developing CF [14]. Arimon-Pagès, et al. [8] wanted to investigate the prevalence of CF in oncology nurses in Spain, so they recruited nurses in Catalonia for the study. 366 questionnaires were sent out to selected nursing personnel in

selected 8 hospitals with 297 responding. The questionnaires included the ProQOL scale [10] and the State Trait Anxiety Inventory Scale [16]. Result showed that 54 nurses (18.2%) had lower scores of sympathy satisfaction (95% confidence interval [CI]: 16.1-20.3), 59 nurses (20.2%) had higher scores of BO (95% CI: 18.0-22.4), 111 nurses (37.4%) had higher score of STS (95% CI: 34.8-40.0) and 287 nurses (96.9%) wanted to receive emotional management training for improving their ability when dealing certain stressful events. With 60% of nursing staff previously participating in this emotional management training, 85.1% of them said if they were allowed to choose, they would not engage in nursing work. This study demonstrates that oncology nurses are at risk of CF and it is necessary to continue to study about CF [8]. 650 oncology nurses (age range: 19-55yrs) from 15 Chinese hospitals joined a cross-sectional study to assessment the prevalence of CF [17]. All the participants need to complete the Chinese version [10] of the ProQOL. The study found that the prevalence of CF in oncology nurses working in secondary hospitals (22.44) was higher than that of those employed in tertiary hospitals (21.03). Researchers believe the reason for this may be due to some nurses establishing a deep emotional relationship with patients after a long period of contact and communication. In China, patients with advanced cancer can be sent to secondary hospitals for ongoing health care, therefore, nurses could be deeply influenced when the patient's condition starts to deteriorate [17]. A systematic review was conducted by Cavanagh, et al. [18] to assess the prevalence of CF among medical workers, with 71 articles included for analysis. Although healthcare workers in every country are providing services, the emphasis on CF varies greatly. In these studies, 57.8% (41 articles) came from North America (37 from the United States), 14.1% (10 articles) from Europe, 8.5% (6 articles) from Australia and New Zealand, 5.6% (4 articles) from Asia, and 2.8% from India. 42.3% (30 articles) were published in 2016, which indicates that there is a growing interest and an increasing attention now focusing on compassion fatigue and its associated factors [18].

Compassion fatigue exists in different professional fields such as the Emergency Department [19], Obstetrics and Gynecology Department [20] and trauma teams [6]. Borges, et al. [19] conducted a cross-sectional study of 87 Emergency Department nurses between May and July 2017 using the ProQOL scale. Among the participants, 65.5% (57) were female, 57.5% (50) having no spouse. Results demonstrated 51% of nurses reported a high level of CS, 59% of the nurses reported a high level of BO and 59% of the nurses showed higher level of STS. It means that overall results highlighting participants were at a high-risk level of developing CF. This was a great challenge for emergency nurses and further research was needed to help them overcome these difficulties [19].

Mizuno, et al. [20] conducted a survey of 255 Japanese nurses from 341 hospitals between October 2011 and January 2012 exploring the occupational quality of life of Obstetrics and Gynecology workers in Japan using a cross-sectional design. The participants included 73 registered nurses, 96

licensed practice nurses and 86 midwives. All participants were female with 70% of the participants stating they had no religious beliefs. Researchers found that nurses' CF is related to the sadness of nursing these abortion mothers and also the additional emotions associated with the aborted fetus. The Japanese government stipulates with the Maternal Protection Law [21] that women are allowed to have abortions within 21 weeks for legitimate reasons such as health problems or the potential of future financial difficulties where the mother is unable to provide for her child. However, abortion is a complex and sensitive issue, which may cause conflicts between a nurses' beliefs and responsibilities. Nevertheless, nurse who work in the area of abortion can only comply with the requirements of the state, which may cause some nurses to slowly accumulate negative emotions until they break down, leading to increased levels of distress and CF [20].

Berg, et al. [6] conducted a qualitative study on 12 members of a trauma team in the United States (83.3% Caucasian, > 40 years old, 66.7% female and 50% nurses). A focus group method was used allowing members share their views on the stress about work-related factors with the ProQOL scale to determine the existence of CF. Results showed that 42% were identified as at risk of CF, 25% felt depressed and 16.7% identified as a BO risk [6]. These results from different departments allow people have a greater understanding of CF. In different departments, facing a variety of patients and situations, medical workers' degree of CF is different, allowing for increased awareness of the relevant factors associated with CF [6, 12, 20].

#### 4.2. Related Factors of Compassion Fatigue

Researchers discovered that the results of CF in different countries were consistent [8, 13, 14, 22] so they began to gradually explore its related factors and intervention measures. A qualitative study by Bhutani, et al. [22] using a semi-structured questionnaire to collect personal data from 60 Indian doctors (35 physicians and 25 surgeons), whose average ages are  $46.68 \pm 11.06$  years to investigate the status of CF among medical staff. The research reports that employees with poor working conditions have higher burnout levels and the scores of job burnout among diabetes practitioners were significantly higher than those of medical interns ( $P=0.04$ ). As the working environment of private practitioners is better, their sympathy satisfaction score is higher ( $p=0.014$ ) [22]. The increasing degree and scope of the adverse effects of CF among health professionals makes this study critical [22]. One of the factors that could lead CF development is the duration of work hours [20, 23]. Working time duration is an important related factor as reported by Korean researchers Kim, et al. [13] and Chinese researchers Wang, et al. [15]. Kim, et al. [13] conducted a cross-sectional study, issuing 500 questionnaires (488 responded) to 4 hospitals in South Korea to assess nurses' quality of professional life. Each participant completed the ProQOL (Stamm, 2005), Ethical Dilemmas [24] and Professional Nursing Values Questionnaire [25]. Kim, et al. [13] identified the quality of professional life of nurses was related to age ( $P<0.001$ ), nursing professional level ( $P<0.001$ ),

working years ( $P=0.001$ ), marital status ( $P<0.001$ ) and religious belief ( $P<0.001$ ). These factors can affect CS and BO in varying degrees, however there is no significant difference relating to STS and the sub factors of moral dilemma, including life domain ( $P<0.001$ ) and customer domain ( $P<0.001$ ), are weakly positively correlated with CS. The results show that as nurses grow older, they encounter greater ethical dilemmas with patients and by having increased experience and professional skills allows their CS levels to increase [13]. A cross-sectional survey conducted by Wang, et al. [15] sample sized 1044 nurses from 11 hospitals in China between 2018 and 2019 to determine the situation of CF among Chinese nurses. The majority of participants were female and married. Most nurses (66.9%) worked more than 8 hours a day and 50.7% of the nurses worked over 6 years.

The results showed that scores of BO, STS and CS in the ProQOL scale were  $27.36 \pm 5.29$ ,  $26.88 \pm 5.13$  and  $32.63 \pm 6.46$ . The positive correlation factors of SF included age > 36 years old, married, regular exercise and good sleep, while a negative correlation factor was smoking (explained 25.7% of the total variance). The positive correlation factors of BO were working hours per day and the negative correlation factors were sleep time, sleep quality, marriage and job satisfaction (accounting for 38.8% of the total variance). STS was associated with sleep quality, working hours, job satisfaction and exposure to second-hand smoking (9% variance).

Another factor associated with CF is the pressure related to job content [22, 23]. Laor-Maayany, et al. [23] conducted a survey on oncologists in Israel in 2017. The ProQOL (formal Hebrew language version by Stamm, 2005) was submitted by the respondents using electronic devices through quartics with 74 participants completing the questionnaires. 56.2% of the participants were female and the average age of them was 45.1 years old. The participating oncologists had a higher sadness score (mean 26.21, range=13-50) and a little sense of failure score (mean 2.19, range=1-5). Oncologists have to share pain with their patients and also think that they should be responsible for their death and related pain. Sadness and sense of failure are important factors affecting the psychological state of oncologists, all of which increase the risk of CF [23].

Other factors to note are environmental factors, including the actual working environment [22, 26] and the workplace atmosphere [17, 26]. Kelly and Todd [26] sent questionnaires to 105 nurses in three intensive care units to investigate the relationship between a healthy working environment and CF. Average age of the respondents was 32 and most of them (80%) were women. A half of the participants did not work night shift and worked 35 hours a week. Each participant completed the 30 item ProQOL questionnaire (Stamm, 2005) and the 18-item Healthy Work Environment Assessment (HWEA) (AACN standard, 2017). Results demonstrated that 47 nurses have a mild burnout level (44.8%), 58 nurses have a moderate burnout level (55.2%), however no nurse reported a high burnout level. 33 nurses in the sample had high compassion satisfaction levels (31.4%), 72 nurses had moderate sympathy satisfaction levels (68.6%) and again no nurse reported low sympathy

satisfaction levels. The research results can preliminarily confirm that good working environment characteristics can effectively avoid the occurrence of compassion fatigue, for example appropriate staffing, effective communication, unity and cooperation and effective decision-making by leadership and management [26]. Similarly, Bhutani, et al. [22] reported when clinicians feel their working conditions are inferior, they will have more burnout and less sympathy satisfaction [22]. The working atmosphere is influenced by both the length of working hours [17] and the leadership of managers [17, 26]. Yu Jiang and Shen [17] found that most (66.9%) Chinese nurses work more than 8 hours a day and Chinese nurses working in tertiary hospitals need to maintain high energy levels to face all types of critical care cases. Such high demands and long-term increased tension and stress levels can make nurses prone to emotional collapse, leading to CF [17]. As mentioned previously, a key influence on nurses' emotional and working atmosphere is the leadership of managers [17, 26]. A managers' values and leadership style will directly affect nurses' working status and pressure. In order to reduce nurses' suffering from CF and to promote effective leadership, managers should actively utilise the latest and most effective management measures. This can be achieved by those who actively strive to provide a harmonious working environment for employees and to improve their satisfaction [17, 26].

Another important factor that researchers focus on is the training of participants, including emotional management training [8], cognitive and empathic ability training [17, 27] and self-healing ability training [26]. In a cross-sectional study of 297 nurses from 8 Spanish hospitals, Arimon-Pagès, et al. [8] looked to explore the prevalence and related factors of sympathy fatigue. Results demonstrated 20.2% (95% CI: 18.0-22.4) participants showed high burnout, 37.4% (95% CI: 34.8-40.0) showed high secondary traumatic stress and 18.2% (95% CI: 16.1-20.3) showed low sympathy satisfaction. Although almost all respondents considered it necessary to receive training because high STS was related to the lack of professional training (prevalence=40.9%), 60% of respondents had never received emotional management training. Emotional management training can help in controlling emotions reasonably and in dealing with negative factors effectively [8]. Mottaghi, et al. [27] conducted a descriptive-correlation study among 360 nurses from 5 Iranian hospitals to determine the relationship between empathy and CF. After initial study screening, 300 participants (262 women and 38 men) were analyzed. Results demonstrated that empathy did not have a direct effect on CF ( $P=0.001$ ) but was influenced by mediating variables. The indirect effect of empathy through guilt (0.24) was the same as the total effect of STS on CF (0.24) ( $P=0.004$ ). Yu, Jiang and Shen (2016) also mentioned the importance of developing empathy, which could allow nurses consider their feelings from the perspective of patients. The results showed that CF was negatively correlated with empathy and social support (all  $P < 0.05$ ) and positively correlated with openness, responsibility and compassion satisfaction (all  $P < 0.001$ ).

### 4.3. Interventions Associated with Compassion Fatigue

Ignoring the signs of CF among medical staff could lead to many consequences such as fatigue and irritability [7, 28–30], job satisfaction decline [28, 30] and resignation [15, 29]. In contrast, staff could potentially display a positive attitude with increased productivity levels when CF is effectively controlled [15, 29]. Now that increasing numbers of researchers are beginning to study CF, whether to enhance people's own awareness [14, 24, 29] or develop the attention of managers [30], the overall aim is that people should pay more attention to CF and to reduce its impact through effective measures. Developing educational measures [7, 13, 29], strengthening nurses' understanding of professional value [7, 24], recognizing nurses' efforts to safeguard patients' rights [13] and reducing clinicians employment burnout through psychological methods [22] are relatively meaningful measures to impact the progression of CF.

A systematic review conducted by Cocker and Joss (2016) aims to analyze the effectiveness of intervention measures to cut down on CF of medical service personnel. None of the 13 studies demonstrated that interventions could positively affect BO, STS or CS at the same time, but 10 studies reported that interventions could significantly improve at least one of these factors (STS or BO or CS). Results identified 53.8% of subjects tended to use a combination of mindfulness, meditation and music therapy to reduce stress. Results showed that positive factors linked with CS increased significantly in 3 (23.1%) studies and the negative factors BO and STS were significantly decreased in 5 (38.5%) studies. Although many people are beginning to focus on CF for key sector personnel, information on the measures implemented is still unclear, however this systematic review provides a basis for people to choose relevant measures [7].

Delaney [29] selected 13 female nurses to undertake an observational mindful self-comparison project over 8 weeks to determine the impact of the project on nurses' CF. Participants with an average age of 44 years from different departments, including intensive care, cardiology, cancer care and obstetrics and urology, working an average of 25 years, of which 70% had worked for 21–40 years were all included in this study. All study participants reported no previous experience with meditation. The process of the project states each nurse participates in 2.5 hours training course along with a half day retreat every week at a time convenient for each participant in addition to appropriate exercises in their spare time. Following the 8-week course, all participants joined in a 40-minute focus group discussion and questionnaire survey. Compared with the pre-intervention data, compassion satisfaction scores (Pre. Mean=37.92, Post. Mean=41), mindfulness (Pre. Mean=33.92, Post. Mean=42) and self-compassion (Pre. Mean=2.87, Post. Mean=3.57) were all improved post the intervention. Simultaneously, the scores of BO (Pre. Mean=29.07, Post. Mean=23.07) and STS (Pre. Mean=27.23, Post. Mean=23.84) decreased, representing the negative aspects of CF. These results are a clear indication that mindful self-comparison program has a positive effect on nurses' CF [29].

Similarly, Wilson, et al. [28] recruited 30 American nurses to study whether massage for patients can improve their professional quality of life. The average working years of participants was 14.7 and the average age was 42.2 years. 20 respondents (69.0%) reported having never given massage to patients before. Study participants are required to complete a 2-hour massage training program and provide massage service for patients for 8 consecutive weeks. At the end of the project, patients reported they experienced pain relief, relaxed mood, improved sleep and reduced demand for medications. Furthermore, nurses reported the massage process also made them feel relaxed, promoted communication with patients and had an overall sense of achievement. Results showed that massage for patients had no significant effect on CF, but it could effectively reduce BO (score decreased from  $18.79 \pm 3.99$  to  $16.83 \pm 2.96$ ) [28]. Although nurses were busy in their daily work, they would try their best to take time to provide massage services for patients and in turn patients would be influenced by the caring behaviors of nursing staff. On this basis, the communication between nurses and patients would be smoother and the contradictions would be effectively reduced [28].

Perregrini [30] through the use of qualitative research summarized the symptoms and related factors of CF. The symptoms of CF are usually manifested in job satisfaction, physical and mental health decline and anxiety. Job satisfaction has been described as workers complaining about long working hours, patients can be difficult to deal with, and leaders and managers not dealing with problems in a timely manner. Physical and mental health decline is reflected as emotional and behavioral changes observed by peers, insomnia or addictive behaviors such as frequent drinking. Hopelessness is demonstrated by the untimely response to the patient's help seeking behavior, poor communication with colleagues and lack of communication with family members. Responding to these symptoms, the researchers presented some intervention measures. For example, writing a reflective diary – an objective analysis of events occurring throughout the day; making a plan for the day including regular work and rest; carrying out various activities such as exercise; discussing events with colleagues and expressing their true thoughts and opinions; participating in education and training - targeted learning methods to control emotions and lastly; setting aside enough time for amateur activities such as reading and listening to music [30].

## 5. Conclusion

According to the existing reports, CF is common among nurses, but there is a limited research focus on its incidence rates in China. With the relevant departments paying ever more attention to nursing and medical staff, the physical condition and mental health of nurses is now also the focus of this increased attention. This study aims to explore the situation of CF among Chinese nurses, identify its related factors and ensure effective intervention measures are implemented. In order to increase the understanding of

nursing staff and their managers on CF, all medical institutions and the general population need to pay increasing attention to the importance of this topic. People could do their own contribution to help reduce the burden among nurses, improve health level of nurses so as to improve the nurse-patient relationship.

Through a research, Rosenstock, Stretcher and Becker [9] highlights that an individual's behavior is controlled by their own psychological consciousness and it is an external manifestation of psychological activities. Then they came up with the Health Belief Model. The mission of nurses is to protect lives and help patients when their health is threatened. However, when the empathy of nurses exceeds their own endurance, their mental health may be threatened. At this time, the occurrence of CF may make nurses subconsciously close themselves for protection.

In conclusion, the concept of CF and its related factors has become increasingly clear. Researchers have increasingly expanded the scope of research from health and community service workers to other high-risk industries and confirmed the effectiveness of the intervention measures at the same time. We need to clearly articulate the role of measures to help those suffering from CF to affectively recognize, accept and deal with these emotions. Based on the current research, managers should identify the existence of CF in time and undertake the appropriate corresponding measures so as to avoid the consequences of depression and even resignation of valuable members of staff. Staff should also pay close attention to their own emotions and corresponding symptoms, accept relevant training, timely self-regulation, actively face and take effective measures.

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