SECONDARY TRAUMATIC STRESS AND COMPASSION FATIGUE AMONG ONCOLOGY NURSES: THE MEDIATING ROLE OF COPING STYLE

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SECONDARY TRAUMTIC STRESS AND COMPASSION FATIGUE AMONG ONCOLOGY NURSES: THE MEDIATING ROLE OF COPING STYLE

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DEDICATION

To my beloved mother and father

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ABSTRACT

The present study sought to examine the Secondary traumatic stress and Compassion fatigue among Oncology Nurses: The mediating role of Coping Styles. A sample of 234 oncology nurses consisting n=105 men and n=129 women from hospitals were approached through convenient sampling method for this research. The main objective of the study was to determine the relationship among Secondary traumatic stress, Compassion Fatigue with the mediating role of Coping styles (Problem focused, Emotion focused and Avoidant coping). It was hypothesized that there would be significant difference on secondary traumatic stress, compassion fatigue and coping styles between male and female nurses and there would be a significant relationship between socio-demographic variables and Secondary traumatic stress, Compassion fatigue and Coping Styles. A detailed demographic sheet, Secondary Traumatic Stress Scale, Compassion Fatigue Inventory and Brief Cope Inventory were used for the data collection. Several variables were assessed through statistical analysis. Results showed significant relationship among secondary traumatic stress, compassion fatigue and coping styles. The highest frequency of demographic variables were; female gender, single in marital status, nuclear family system, graduate employees, Islam religion, middle socioeconomic status. Female employees score high in Compassion Fatigue. Implications, limitations and suggestions for future research had also been discussed.

Keywords: Secondary Traumatic Stress, Compassion Fatigue, Coping Styles

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1	M	Mean
2	SD	Standard Deviation
3	K	Number of items
4	N	Frequency
5	α	Cronbach's Alpha Reliability
6	η2	eta square (effect size)
7	β	Regression coefficients
8	B	Regression coefficients
9	SE	Standard Error
10	R^2	Effect size of Mediation
11	p	Significance Level

CHAPTER 1

INTRODUCTION

Oncology nurses play an important role in healthcare and have difficult job helping people fighting cancer. This job requires a lot of understanding and care, but it also means nurses are often stressed by seeing their patients suffer. They play crucial role in providing care for patients with cancer, a disease that is physically and emotionally stressful, while their work is highly rewarding, oncology nurses are also at high risk for developing secondary traumatic stress (STS) and compassion fatigue (CF).

Indirect exposure to trauma causes secondary traumatic stress disorder (STS), characterized by symptoms like intrusive thoughts, elevated anxiety, and emotional numbness (Beck et al., 2022). A similar but more broader term is "compassion fatigue," which describes the physical and emotional weariness brought on by prolonged exposure to the suffering of others. It is frequently accompanied by reduced empathy, emotional depletion, and burnout (Sinclair et al., 2023).

Caring for oncology patients with life-threatening conditions such as cancer requires a significant investment of emotional engagement from its members. Oncology nurses often work with patients who have experienced serious illness, loss, and trauma; understanding these conditions and their impact on oncology nurses is essential on maintaining their health and providing high standards of care to the patients which mostly can lead to secondary traumatic stress disorder (STS) and compassion fatigue. It is essential to comprehend these occurrences and how they affect oncology nurses in order to protect their health and provide patients with high-standard

treatment. This profession demands a great deal of psychological and emotional fortitude. When patients receive intensive treatment for life-threatening illnesses, nurses working in oncology settings frequently develop close, compassionate relationships with them. Because of their intimate involvement, oncology nurses are more likely to experience compassion fatigue (CF) and secondary traumatic stress (STS), two illnesses that can negatively affect their general and mental health.

Coping strategies have a significant impact on how well oncology nurses cope with emotional strain of their jobs and can make a big difference in how susceptible they are to CF and STS. Adaptive and maladaptive coping mechanisms can be broadly divided into two categories. Research has demonstrated that healthcare professionals who use adaptive coping strategies, such as problem-solving, seeking social support, and emotional regulation, are more resilient and less likely to be affected to the negative effects of stress (Hinderer et al., 2022). On the other hand, maladaptive behaviors such substance abuse, denial, and avoidance may increase stress and contribute to the development of CF and STS (Delgado et al., 2021). Understanding how coping strategies that address the link between psychological effects and stressors allows for the customization of therapies to boost resilience and advance general wellbeing.

Background of the study

Healthcare professionals, nurses in particular, frequently deal with many upsetting life circumstances, such as demanding personal circumstances, the nature of their work, which requires them to stand for extended periods of time while maintaining composure, and managing patients who require assistance (Arimon Pagès et al., 2019). The stress of these demanding circumstances has a detrimental impact on nurses' well-being and lowers their quality of life at work. Researchers

believe that assessing one's professional success and striving for improvement plays a significant role in enhancing one's own well-being as their personal and social lives (Arimon-Pagès et al., 2019). According to one study, 1.5% of nurses were satisfied with the high quality of their process.

Nurses, being the largest group of healthcare professionals, play a major role in treating and maintaining health at all stages of life, as well as having additional tasks like administration and education. One of the main reasons of compassion fatigue in nurses is pressure, which stems from the increasing demands placed on their expertise and mental stability. Significantly, while providing treatment in complicated and stressful environments, nurses are far more prone to make mistakes that could create a vicious cycle of unfavorable consequences. Primarily, nurses recognize the importance of their professional life and are aware of the challenge of providing treatment with little organizational resources and minimal acknowledgement from other medical experts. To capture how people perceive and relate to the paintings they create as healthcare practitioners, Stamm incorporated feelings of pride and compassion weariness into the concept of expert fine of existence. According to a systematic assessment and meta-analysis of nurses' expert happiness with their existence, the Asian region has the lowest levels of compassion satisfaction and the best levels of compassion weariness (Wanqing Xiea, 2021).

Oncology nurses are prone to distress since they regularly work with terminally ill or dying patients and spend a lot of time providing supportive care to them and their families. Oncology healthcare personnel are more susceptible to depression and anxiety as a result of prolonged exposure to high-pressure work situations and frequently witnessing patients' suffering. This further impairs/reduces their capacity/ability to give compassionate care. Furthermore, occupational stressors including peer pressure, an excessive workload, and disrespect from patients

can lower job satisfaction and eventually have an impact on an individual's quality of life as a professional (Wenqi Peng, 2022).

Burnout and secondary traumatic stress are the two components that make up compassion fatigue. Burnout is more prevalent than secondary traumatic stress, but its affiliation/impact is greater because it’s associated with fear which is studied as a common symptom following unfavorable events- it has a more potent effect. Another study by Duarte and Pinto-Gouveia (2017) highlighted that oncology nurses are particularly vulnerable to these conditions because they are often exposed to patients' suffering and death.

Compared to healthcare professionals in other departments, oncology specialists are more likely to experience compassion fatigue. Physicians have reported experiencing persistent compassion fatigue in addition to the gloomy state of burnout; they maintain a comparatively moderate quality of life in their professional capacities. Compassion fatigue among oncology nurses in China is at a medium level. Because of the "ward bed responsibility" aspects of their jobs, doctors and nurses frequently have to work together; as a result, compassion fatigue may affect them both reciprocally. Patients' and families' satisfaction may suffer as a result of healthcare professionals' poor self-care due to a high level of compassion fatigue (Bixia Zhang, 2022).

Secondary traumatic stress (STS) describes the symptoms and stress resulting from negative reactions to traumatic events brought on by being indirectly exposed to the terrible events of another person. According to Cieslak, such symptoms may include avoidance behaviours, hypervigilance, emotional numbness, and intrusive thoughts (Cieslak et al. 2015). On the other side, when carers are unable to recover from the emotional demands of their profession, they may experience compassion fatigue (CF), which is a severe form of physical and emotional tiredness.

Unlike burnout, which occurs gradually, CF can occur quickly and intensely, leaving patients isolated, powerless/vulnerable, and unable to sympathise with other people (Hunsaker et al., 2015). Constantly dealing with patients experiencing severe suffering and loss can cause cumulative stress, which can overwhelm even people who were previously tough (Austin, Saylor, & Finley, 2017).

Because of the nature of their employment, oncology nurses are particularly vulnerable to CF and STS. Research have shown a high prevalence of both CF and STS among oncology nurses. For example, a study conducted in 2016 by Quattrin found that a majority of cancer nurses have symptoms of both STS and CF, which has a negative impact on work satisfaction and raises absenteeism and turnover rates. These phenomena have an effect on nurses' well-being as well as the standard of patient.

Studies show that coping strategies used by oncology nurses can have a significant impact on how well they manage STS and CF they deal with. For example, a research has shown that nurses who relied on avoidance coping strategies had higher levels of CF and STS than those who used problem-focused coping strategies Hinderer et al. (2014).

Recent research has further elucidated the relationship between coping methods and Secondary Traumatic Stress/Compassion Fatigue among oncology nurses. For example, Cocker and Joss (2016) stressed the need of organizational support and training in helping nurses develop healthy coping mechanisms. Additionally, research suggests that STS and CF may be lessened through interventions that build resilience and encourage healthy coping strategies (Duarte & Pinto-Gouveia, 2016).

In a research looking at how cancer nurses describe their emotions after seeing both new and long-term patients pass away, nurses expressed that they feel like they are "riding a roller coaster." The emotional strain and compassion fatigue that oncology nurses face when delivering end-of-life care might worsen if the profound emotional experiences they have are disregarded, which will lower the standard of patient care. In addition to raising medical errors and staff turnover, compassion fatigue can have a detrimental impact on one's physical and mental well-being, productivity, and work engagement. These factors can all lower the professional quality of life for nurses who provide palliative cancer treatment. As such, it is critical that nurses who provide palliative cancer care simultaneously preserve their personal health and quality of life and deliver high-quality patient care (Saribudak, 2023).

This study aims to explore the mediating role of coping styles in the relationship between STS and compassion fatigue among oncology nurses. By investigating how different coping strategies affect these outcomes, this research seeks to provide insights into effective interventions and support systems that can enhance nurse resilience and well-being. Understanding these dynamics/changes is essential for developing strategic plans that promote psychological health and improve both the professional satisfaction and effectiveness of oncology nurses. A thorough grasp of the causes of Secondary Traumatic Stress and Compassion fatigue as well as coping mechanisms that can lessen their effects is crucial for oncology nurses, as these illnesses are being more recognized as major work hazards. Healthcare organizations can develop focused interventions to support cancer nurses by emphasizing the mediating function of coping styles, and problem-solving models, which will eventually improve the nurses' well-being and the quality of care they deliver. Oncology nurses require a stable and sustainable and encouraging work

environment, and this can only achieved through continuous research in this field to uncover best practices.

Rationale of the study

Oncology nurses oftenly experience high level of stressors due to the nature of their work, leading to high levels of secondary traumatic stress (STS) and compassion fatigue (CF). Although the impact of these factors on nurse well-being is acknowledged, there remains a paucity of research specifically addressing how coping styles mediate this relationship. Identifying and addressing these gaps is crucial for developing effective interventions to support oncology nurses. Much of the existing research on Secondary Traumatic Stress and Compassion Fatigue has been conducted with diverse healthcare experts, often combining different specialties. Oncology nurses face unique challenges due to the chronic and terminal nature of cancer, which may result in higher levels of STS and CF. Research that focuses specifically on oncology nurses is needed to understand these unique stressors and their coping mechanisms. In medical environments where healthcare professionals interact intimately with patients who are in pain, secondary traumatic stress is a serious concern. Similar to post-traumatic stress disorder (PTSD), it presents as emotional distress and has symptoms like hypervigilance, avoidance behaviors, and intrusive thoughts (Austin, Saylor, & Finley, 2017). Emotional tiredness, depersonalization, and a decreased capacity for empathy are symptoms of compassion fatigue, a condition that blends burnout with STS (Sinclair et al., 2021). Nurses who work in oncology are particularly vulnerable to secondary traumatic stress and compassion fatigue because of the severe patient suffering, high death rates, and tough conversations that they encounter. It is commonly known that oncology nurses frequently have Compassion Fatigue and Secondary Traumatic Stress. Research indicates that these circumstances are connected to unfavorable results, like low job satisfaction, high

absenteeism, and high employee turnover rates (Mason et al., 2022). The resulting emotional burden not only affects the mental well-being of nurses but also the quality of patient care because emotionally spent nurses may find it difficult to interact with patients.

Previous studies often use inconsistent definitions and measurement tools for STS, CF, and coping styles, making it hard to examine results through studies. There is a want for standardized, validated instruments to accurately measure these constructs in the context of oncology nursing.

While coping styles are acknowledged as important, their specific role in mediating the relationship between STS and CF is underexplored. Existing research tends to either focus on coping in a general sense or does not adequately differentiate between adaptive and maladaptive coping strategies.

There is limited exploration of how cultural and organizational factors influence the relationship between STS, CF, and coping styles. For instance, organizational support, workplace culture, and societal attitudes towards mental health can significantly impact how oncology nurses experience and cope with stress. More research is needed to consider these contextual face.

Although some studies have suggested interventions to enhance coping strategies, there is limited evidence on their long-term efficacy. Studies are needed to evaluate the effectiveness of various interventions in reducing STS and CF among oncology nurses over an extended period.

CHAPTER II

LITERATURE REVIEW

Secondary Traumatic Stress

Nurses are on the frontline of a worrying healthcare system and are required to address with emotional trauma issues on a daily basis which may additionally result in them experiencing signs of secondary traumatic stress (STS). Nurses are uncovered to a huge variety of traumatic events at some point of their careers. Being concerned for sufferers experiencing bodily and emotional trauma can take a toll on their intellectual nicely-being, main to a situation known as secondary traumatic stress (STS).

Secondary Traumatic Stress is defined by using Figley (1995) as natural result of stress experienced when ‘helping or wanting to help a traumatized or suffering person’. Secondary traumatic stress is another difficulty that nurses face in terms of their health. While someone has contact with survivors of an awful/horrific event however has not themselves experienced the tragedy, this condition is referred to as "secondary traumatic stress" (Dominguez-Gomez & Rutledge, 2009). As a result, secondary traumatic stress disorder is seen as an occupational injury added on with an aid of immediately assisting the ones who have been injured. A situation known as secondary traumatic stress disorder can develop due to witnessing, hearing, or experiencing an incredibly intense traumatic stressor (Ratrout & Hamdan-Mansour, 2020). The response to this revel in is characterized by using fear, helplessness, and a continual resonant event that affects a person's life, including circle of relatives and expert satisfactory. Excessive empathy nursing students revel in better higher secondary traumatic stress, sleep disorders, hostility, and

compassion fatigue. These unique stressors impact nurses' emotional well-being and job satisfaction (Dominguez-Gomez & Rutledge, 2019; Petrovich et al., 2018).

Recent studies have focused on resilience-building and self-care interventions aimed at preventing and mitigating STS and compassion fatigue among nurses. These interventions include mindfulness-based practices, stress management techniques, and peer support programs (Ruiz-Fernández et al., 2020; Hemsworth et al., 2018). Over the past few decades, studies on STS and compassion fatigue amongst nurses has advanced from a focal point on popularity and symptomatology to a more comprehensive understanding of the underlying mechanisms and protective factors. Coping style has emerged as a crucial mediating component, influencing nurses; ability to manage the emotional toll of their work and maintain well-being.

Secondary traumatic stress (STS) affects nurses working in various settings. Studies reveal nurses in emergency departments, oncology units, and those specializing in pediatrics or mental health are particularly susceptible. Studies indicate STS symptoms mirror those of post-traumatic stress disorder (PTSD), including emotional exhaustion, intrusive thoughts, and avoidance behaviors. The constant exposure to patients' suffering can erode a nurse's sense of well-being and compassion, potentially impacting patient care. Several factors contribute to STS development in nurses. Workload, long hours, and lack of organizational support are significant stressors. Additionally, nurses with personal histories of trauma or limited coping mechanisms may be at higher risk (Ratrout, 2019).

Studies reveal that STS is common among medical workers, and oncology nurses are especially susceptible because of their frequent and intimate interactions with patients who are experiencing extreme pain or even death (Matthieu et al., 2015). According to studies, STS can

result in burnout, a decline in job satisfaction, and a decline in the standard of treatment (Hunsinger et al., 2015).

Secondary Traumatic Stress has been mentioned in mental health professionals treating trauma survivors who have been observed to develop trauma symptoms in connection to the traumatic experience of their clients. However, the evidence about whether own family members are at risk of developing STS is mixed. Ting, Jacobson, and Sanders (2011) studied the ranges of perceived stress in a sample of MSW-level social workers practicing in mental health throughout the United States. Analyzing a sub-pattern of 285 participants who had previously experienced either fatal or nonfatal client suicidal behavior (CSB), the researchers found that higher levels of STS in social workers during the period following CSB were associated with higher levels of perceived stress. These findings provide further support that the nature of trauma work can have effect on social workers lengthy after the triggering incident, and have implications for the improvement of interventions to help cope with STS in social workers (Bum, 2015).

Naturale (2007) presented three case histories to look at STS in social employees responding to disasters. In each of the cases, social employees proven signs and symptoms of STS, and used an expansion of strategies to mitigate the STS. For instance, they employed supervision, organizational structured supports to decrease stress and triggered symptoms, the implementation of self-care activities, and obligatory body of workers training concerning STS and its impact. Studies similarly shows that experts do not acquire adequate preparation when working with survivors of trauma (Pryce et al., 2007), and that social workers may not be adequately educated about STS and related phenomena (Courtois, 2002; Cunningham, 2004; New- ell & MacNeil, 2010). Knight (2010) conducted a study with social work students and their supervisors and found

that education surrounding indirect trauma (STS) can lessen its effects. These findings are discouraging given that schooling and trainings can play a sizeable role in mitigating the effects of STS.

Studies on secondary exposure to a specific stressor have found that participants experience high rates of secondary traumatic stress symptoms. The purpose of this study is to investigate the impact of media exposure to the 6th February Kahramanmaras earthquake on traumatic stress symptoms. The study included 182 physicians and medical school students who used online platforms, with records collected through self-life forms. The participants said they were exposed to news or images about the event via television or social media for greater than 12 hours per week. The study found that 46.2% of participants had traumatic symptoms. There has been a considerable advantageous correlation between the participants; trauma scores and their levels of anxiety, depression, and stress. Exposure to traumatic images for more than 12 hours per week, as well as having a relative injured in the earthquake, may be linked to secondary trauma stress. Future research is needed to determine the impact of exposure to traumatic images through media on traumatic stress.

Compassion Fatigue

One of the most extensive consequences is the care providers' fatigue of being compassionate to the clients. Compassion fatigue turned into first carried out to nursing with the aid of Joinson to explain nurses' responses of either emotional distancing to turn off their own feelings, or feeling helpless and angry as they watch patients undergo trauma or devastating illness. Coetzee and Klopper (2010) determined that compassion fatigue is a consequence of the stress felt by nurses and a feature in severe in their intense engagement with patients over time (Jarrad &

Hammad, 2020). Indicators associated with compassion fatigue include apathy, fatigue, irritability, decreased productivity, boredom, dwindled overall performance, an emotionally overwhelmed state, poor judgment, callousness, and desensitization to the needs of others. Compassion fatigue occurs when the amount of compassion expended by the team of workers member exceeds their ability to cope or recover (Wells-English, 2019). Compassion fatigue is a completely crucial variable that without delay impact nurses' exceptional of life. In this situation, health care providers who take care of clients are faced day by day with circumstances that can have negative consequences on the quality of the care (Ortega-Campos et al., 2020).

Compassion fatigue refers to the progressive deterioration of an individual's ability to empathize with others, frequently stemming from extended exposure to the distress of others in their care. Its symptoms include emotional exhaustion, decreased job satisfaction, and a sense of separation from work, containing both burnout and Secondary Traumatic Stress (Cocker & Joss, 2016). Because of the strong emotional relationships they develop with their patients and the demanding nature of providing care in an emotionally taxing environment, oncology nurses are at a greater risk of developing compassion fatigue (CF) (Mason, Leslie, Lyons, Walke, & Anderson, 2022). Since both disorders result from repeated exposure to upsetting circumstances, there might be a lot of overlap between STS and CF. However, CF is distinguished by the presence of cumulative emotional exhaustion.

According to research, Secondary Traumatic Stress and high levels of work stress are associated with compassion fatigue , which is common among oncology nurses (Duarte & Pinto-Gouveia, 2016). CF is greatly impacted by the emotional toll that caring for patients with terminal illnesses take on one's well-being and professional efficacy (Hunsinger et al., 2015).

Compassion fatigue has been characterized as a drawback for healthcare providers that deal with traumatized and suffering patients (Bride, Radey, & Figley, 2007). Long-term, continuous, high-frequency patient contact as well as exposure to stressful situations might accumulate and evolve into compassion Fatigue (CF) (Smart et al., 2014). Burnout and CF are different in that CF is more focused, involves the behavioral reactions of medical professionals who work with patients who are in pain (Gilmore, 2012), and has the potential to cause both psychological and physical discomfort (Sheppard, 2015). Burnout, a part of CF, has a high negative correlation with staff morale and can have a major impact on patients' health outcomes (Leiter & Maslach, 2009). Personal characteristics like age and educational background, work-related factors like caring for trauma patients, work hours, psychological factors like work stress and burnout, and support/coping factors like organizational support and coping tools were all associated with compassion fatigue. In summary, the level of compassion fatigue among nurses varies depending on their nursing specialization. The nurses' compassion fatigue was influenced by numerous things. Longitudinal studies and interventional research have been conducted to assess the long-term impact of compassion fatigue interventions on nurses's well-being and job satisfaction. These studies aim to identify effective strategies for preventing and managing compassion fatigue over time, informing evidence-based practice (Cocker; Joss, 2016; Lavoie et al., 2018).

Compassion fatigue (CF) is the stress introduced on by being around traumatized human being. Secondary traumatic stress (STS) and cumulative burnout, a condition of physical and mental tiredness added on by a way of faded ability to cope with one's each day surroundings, were described because the convergence of CF. Workers in the healthcare, emergency, and community services sectors who are frequently exposed to the traumatic experiences of the people they serve are especially vulnerable to getting cystic fibrosis (CF). This may have an effect on the

quality of patient treatment, the connections that patients have with their colleagues, or it can result in more serious mental health issues including depression, anxiety, or posttraumatic stress disorder (PTSD) (Pehlivan, 2018).

Even for individuals who are indirectly affected, trauma can have long-lasting consequences. Compassion fatigue, a condition that frequently affects compassionate workers who assist traumatized people, includes signs of job burnout and secondary traumatic stress. A future-focused type of anguish brought on by media coverage and social media conversations about natural catastrophes and major adverse events is known as anticipatory traumatic reaction. The reason of the current study was to look at turned inspect the connections and interactions between these two stress-related diseases, each of which can be added on by way of secondary trauma exposure. Measures of secondary traumatic stress, burnout, compassion satisfaction, general discomfort, and anticipatory traumatic reaction were completed by a cohort of forty-eight youth workers. The association among general distress and subsequent traumatic stress was amplified by anticipatory traumatic reaction. A mediation evaluation found out the relationship between burnout and secondary traumatic stress and overall distress. Analyses of moderated mediation discovered that the relationship between burnout and secondary traumatic stress was mediated by using anticipatory traumatic reaction interacting with overall distress. The findings showed that secondary traumatic stress and burnout can be associated with stages of melancholy, anxiety, and stress experienced by youth workers. Elevated levels of anticipatory traumatic reaction could worsen the situation and increase the risk of burnout for youth workers. Studies that are both longitudinal and experimental should be conducted to elucidate the relationship between compassion fatigue and anticipating traumatic reaction. Additionally, it should be determined whether burnout in other occupations might be exacerbated by anticipatory traumatic reaction.

A thorough evaluation of the programs' efficacy in lowering CF among emergency, hospital, and community service personnel was carried out. A total of 13 pertinent studies were found. There were no research that specifically targeted emergency service professionals, but three included studies focused on community service workers (social workers, workers in the disability sector). After the intervention, seven studies found a significant difference in burnout or STS. This study found that there is only a recent body of evidence supporting the efficacy of CF therapies in at-risk health and social care professions. Thus, we urge more study to ascertain the most effective ways to safeguard susceptible employees in the workplace to avert not just cystic fractures, but also the health and financial ramifications associated with the consequent, more incapacitating effects pertaining to physical and mental health.

Compassion fatigue among mental health practitioners is a result of psychosocial risks in the field of mental healthcare. The detrimental effects of compassion fatigue on professionals' mental health and wellness may lower the standard of care they give to their clients. Most studies on compassion fatigue have concentrated on factors that are specific to each person, like age, gender, and trauma history. In order to mitigate the effects of compassion fatigue on mental health professionals and their clients, it is also critical to comprehend the role that modifiable work-related features play in its development. The studies examining work-related factors linked to compassion fatigue were reviewed for this study. A checklist was used to evaluate the quality of the fifteen quantitative studies that were included. The inductive content-analysis method was utilized to amalgamate the themes that surfaced from the data. The findings pointed to a theoretical framework that is in line with the Job Demands-Resources model, according to which job demands like workplace trauma, workload, and therapeutic settings are linked to compassion fatigue, while job resources like organizational support, coworkers, and supervisors mitigate the effects of job

demands. Work-related elements are essential for preventing compassion fatigue in addition to person-oriented factors (Jasmeet Singh, 2020).

Compassion fatigue is a result of COVID-19's negative effects on healthcare personnel' psychological health and wellbeing, which continue to influence their professional duties and actions. This review's objective was to locate and compile existing research on compassion fatigue in healthcare professionals and how it affects patient care. Six databases were searched for research on compassion fatigue in healthcare practitioners published in English between the pandemic's peak in 2020 and 2023.

Compassion fatigue was reduced in part by interventions like expanding the number of staff on hand. The study suggests potential interventions to promote the psychological health and general wellbeing of healthcare professionals. There is growing recognition of the need for tailored interventions to address compassion fatigue among nurses, taking into account individual differences in coping styles, job demands, and organizational support (Verhaeghe et al., 2017; Lavoie et al., 2018). Interventions that promote resilience-building, self-care strategies, and social support networks have shown promise in mitigating the impact of compassion fatigue and enhancing nurses; psychological well-being (Mach et al., 2019; Adams et al., 2020).

In summary, existing literature on compassion fatigue among nurses underscores the multifaceted nature of this phenomenon and the importance of considering coping style as a mediating factor. Future research should strive to address methodological limitations and develop tailored interventions to support nurses in managing compassion fatigue effectively.

2.3 Coping Style

Coping is the continuous effort of a given individual to change cognition and behavior to cope with demands considered to be stressful and beyond the reach of personal resources (Cheng et al., 2022). Coping is defined as the cognitive and behavioral techniques a person employs to deal with the external and internal demands of stressful events. Previous evidence suggested that coping styles act as a critical mediating role in psychological stress (Brudek et al., 2019). Individual coping style can both affect the properties and strength of response to stress, as well as further regulate the relationship between stress and its results (Yin et al., 2022).

Coping styles that are diametrically opposed are positive and negative coping. When faced with stress, people who use positive coping strategies (such as active coping, humor, and reframing) respond positively by taking proactive steps and creating growth chances (Wood, 2007). Positive coping at work can result in feelings and actions that are constructive and produce better results (Affinito, 2018). Negative coping, on the other hand, is defined by a more emotion-focused coping style that may reduce suffering by concentrating on unfavorable ideas (like rumination) and making efforts to avoid or deny unpleasant situations (like avoidance and denial) (Ding, 2015).

Studies have indicated that problem-focused coping lessen the negative effects of STS on CF. For example, research by Park et al. (2020) indicates that nurses who utilize problem-focused coping techniques report reduced levels of CF because these coping mechanisms assist in reducing and managing the immediate stressors connected to patient care. This coping mechanism can enable nurses to deal with problems at work in a proactive manner, lessening the emotional strain and averting burnout (van Berkel et al., 2021).

Rather of tackling the stressor directly, emotion-focused coping focusses on controlling one's emotional reactions to stress. Among the tactics are using mindfulness exercises, relaxation techniques, and social support (Garnefski et al., 2017).

Studies reveal that emotion-focused coping can be quite helpful in the management of compassion fatigue. Adaptive emotion-focused techniques that assist nurses control their emotions and lessen the consequences of compassion fatigue include self-compassion and mindfulness (Matos et al., 2019). On the other hand, maladaptive behaviors such as avoidance and rumination can make compassion fatigue worse, emphasizing the need for balanced coping mechanisms (Duarte & Pinto-Gouveia, 2016)

It is commonly known that problem-focused coping mediates the link between secondary traumatic stress (STS) and compassion fatigue (CF). By addressing and controlling the stressors related to patient care, problem-focused coping helps lower the incidence of compassion fatigue (Shin et al., 2018). By addressing the stressors that contribute to STS, effective problem-focused interventions can lower the likelihood of acquiring CF. The comparative efficacy of emotion- and problem-focused coping strategies shows that both are essential for controlling CF and STS. Emotion-focused coping assists in controlling emotional reactions, whereas problem-focused coping deals directly with the pressures. Oncology nurses may find that combining the two coping strategies provides a more thorough approach to managing STS and CF (Park et al., 2020; Shin et al., 2018).

The usefulness of problem-focused coping in lowering stress and improving wellbeing has been shown by recent studies. For example, Glidden et al. (2016) discovered that because problem-focused coping techniques actively attempt to remedy the stressor, they frequently result in better

psychological outcomes. Research shows that problem-focused coping is especially useful in lowering burnout and compassion fatigue in nurses, underscoring its significance in high-stress occupations (Thongpriwan et al. 2020).

Emotion-focused coping may or may not be beneficial depending on the situation and the particular techniques employed. He et al. (2018) discovered, for instance, that techniques centered on positive emotions, like reaching out to others for support and adopting a happy mindset, can result in better psychological outcomes. Detrimental emotion-focused tactics, on the other hand, such denial and self-blame, can worsen stress and have a detrimental impact on mental health. A research highlighted the significance of adaptive emotional regulation in high-stress contexts by reporting that nurses who practiced positive emotion-focused coping had reduced levels of secondary traumatic stress (Li et al. 2020). The advantages of coping flexibility have been brought to light by recent studies. According to Cheng et al. (2015), people with flexible coping styles reported better psychological results than people with rigid coping styles. This implies that a coping strategy that is one-size-fits-all may be less successful than a dynamic, adaptable strategy that takes into account the unique requirements of each stressor.

Despite the fact that coping techniques were located to mediate, the connection among second-victim experiences and adjustments in nursing practice, little is known about how they affect professional quality of life. Building on these discoveries, a framework has been created to investigate the coping mechanisms and perceived assist which are most effective at reducing stress. In this study, the stressors are represented by means of negative events encountered by means of nurses, inclusive of medical errors and patient-related injuries. Cognitive appraisal pertains to the perceived stress and support that nurse's experience during second victimization, assessing their

evaluation of these events and the level of support received. To further reduce the hazards associated with prolonged exposure to trauma, institutional adjustments can be implemented to reduce job-related stressors and provide access to counselling or peer support groups (Anderson, Medved, & Anderson, 2022).

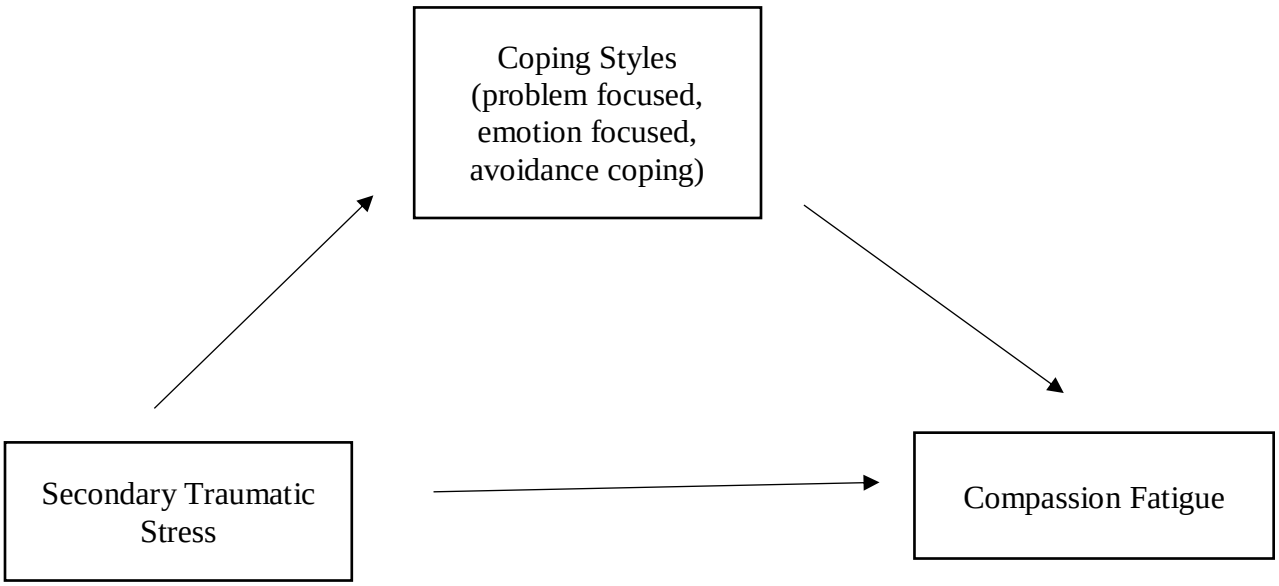
Stress is observed through the process of coping. Coping styles are described as stable psychological and behavioral techniques to overcome or tolerate external and internal challenges or stressors. Some human beings cope with stress actively, while others cope passively. Active coping strategies are either behavioral or psychological responses designed to change the nature of the stressor itself or how one thinks about it, whereas passive coping strategies lead human beings into activities (such as alcohol use) or mental states (such as withdrawal) which prevent them from directly addressing stressful events. Coping behaviors of individuals make contribution to the rationale of why exposure to the same stressors may cause burnout in some subjects, but not in others. A study conducted in Hong Kong by Wang et al. indicated that making use of effective coping strategies performs a pivotal role in reducing stress among nurses. The coping techniques utilized by nurses may vary with respect to their personal, psychological, and cultural factors. A previous study reported that Chinese nurses tended to cope actively with stress associated with decreased personal achievement, but passively when the stress originated from resource and environment problems, affected patient care and interaction issues, and from interpersonal relationships and management issues, suggesting regional variations in the coping styles of nurses.

Theoretical Framework

Figley's compassion stress and Fatigue model

One of the most influential theoretical framework for understanding STS, CF and VT is Figley's Compassion Stress Fatigue Model (CSF) (Figley,1995). This model posits that these conditions arise from combination of empathic concern, empathic ability and exposure to trauma. Nurses with high level of concern and empathic ability are more likely to be affected by the trauma of their patients and form strong bonds with their patients which increase their risk of STS, CF and VT. Exposure to trauma is the most important factor in the development of STS, CF and VT. Nurses who work in areas where they are exposed to high level of trauma such as emergency departments or oncology, are at increased risk for these conditions.

Figure 1. Conceptual model of research



This framework offers a based way to discover and recognize the dynamics between secondary traumatic stress, compassion fatigue, and coping styles amongst oncology nurses. It highlights the significance of promoting effective coping strategies to reduce compassion fatigue.

CHAPTER III

METHOD

Research design

The design of this study was cross sectional survey research to assess the traits or qualities of our specified population.

Research strategy

Quantitative research strategy was used in current study as the variables being studied are quantifiable and this strategy was suited because of its ability to provide precise numerical insights, facilitate statistical analysis, and yield generalizable findings, enhancing the rigor and objectivity of the study.

Sample

The sample for this study comprises oncology nurses working in hospitals across Rawalpindi, Islamabad and Peshawar. Oncology nurses were chosen as the target population due to their high exposure to patient suffering and the associated risks of secondary traumatic stress (STS) and compassion fatigue (CF). The sample size for this study was 234 oncology nurses. Efforts were made to ensure the sample size was adequate to provide reliable and generalizable results, allowing for meaningful statistical analysis.

Objectives

1. To examine the relationship among secondary traumatic stress, compassion fatigue and coping styles among oncology nurses.
2. To explore the mediating role of coping styles in the relationship between secondary traumatic stress and compassion fatigue.
3. To investigate the mediating role of problem-focused coping in the relationship between secondary traumatic stress and compassion fatigue.
4. To investigate the mediating role of emotion-focused coping in the relationship between secondary traumatic stress and compassion fatigue.

Hypothesis

1. Secondary traumatic stress will positively predict compassion fatigue among oncology nurses.

3. Adaptive coping styles (problem-solving coping style and emotion focused coping style) will weaken the positive relationship between secondary traumatic stress and compassion fatigue.

4. Maladaptive coping style (avoidance) will strengthen the positive relationship between secondary traumatic stress and compassion fatigue.

Sampling Technique

Convenience sampling technique was used for the present research because only the nurses with specified characteristics were included in study. Nurses in oncology department were approached and briefed about the research. After having their consent, questionnaire booklet was provided to participants and responded questionnaires were collected.

Inclusion criteria

Oncology nurses were part of the study. Only those nurses were taken who are working in their current organizations for at least past one year.

Exclusion criteria

The study excluded nurses outside the oncology department and with less than one year of experience in their current job. Additionally, temporary, part-time, as well as those on extended leave or participating in internship programs, were not included. Part-time or temporary staff may not have consistent exposure to the work environment that full time oncology nurses experience, potentially affecting the study's outcomes.

Operational Definitions

The operational definitions of the variables in the study are as follows;

Secondary Traumatic Stress

Secondary traumatic stress is the emotional constraint that results when an individual hears about the firsthand trauma experiences of another. In current research, secondary traumatic stress

will be measured through scores on secondary traumatic stress scale (STSS) where high scores indicated higher presence of secondary traumatic stress and vice versa.

Compassion Fatigue

The physical, emotional, and psychological exhaustion and diminished ability to empathize that can result from prolonged exposure to the suffering and trauma of others, particularly in the context of providing care or support. In current research, compassion fatigue was measured through scores on compassion fatigue inventory (CFI) where high scores indicate higher presence of compassion fatigue and vice versa.

Coping Styles

The cognitive and behavioral strategies employed by individuals to manage and adapt to stressors, encompassing problem-focused coping (efforts to actively address and solve the stressor) and emotion-focused coping (efforts to regulate emotional responses to the stressor).

Problem focused coping. Problem-focused coping is kind of coping aimed at resolving stressful situation. Problem-solving techniques and stress-removal techniques are examples of problem-focused coping strategies. Other examples include asking for help or knowledge to manage the situation, removing oneself from the stressful circumstance, and taking control of the stress (carroll, 2020).

Emotion focused coping. Emotion-focused coping refers to using techniques to analyse and manage emotions that come from stressful events. It makes use of inward-looking approaches to manage emotions and lessen distress, such as journaling, breathing exercises, and meditation (Risser, 2023).

Avoidant coping. Avoidance coping, sometimes referred to as escape coping, avoidant coping, and avoidance behaviours, is a maladaptive type of coping where a person alters their behaviour to prevent themselves from feeling, thinking, or doing painful things.

Instruments

Following research instruments were used in this study:

Demographic Sheet

A demographic sheet was provided to the participants to obtain their demographic information. The information in this sheet questioned about the participant's gender, income, duration of job and job experience.

Secondary Traumatic Stress Scale (STSS)

The Secondary Traumatic Stress Scale is a self-report inventory designed to assess the frequency of STS symptoms in professional caregivers. Responses are indicated on a 5-point Likert scale (1 = *never* to 5 = *very often*) how often they experienced each of the 17 STS symptoms during the last week. The 17 items are organized in three subscales including intrusion, avoidance, and arousal. The STSS total score is calculated by summing up the item scores, with a higher score indicating a higher frequency of symptoms. A total score below 28 corresponds to "little or no

STS," a score between 28 and 37 means "mild STS," between 38 and 43 "moderate STS," between 44 and 48 "high STS," and beyond 49 "severe STS". Scoring is obtained by summing the endorsed frequency for each sub-scale as well as the total STS scale. There is no reverse scoring. Psychometric data for the original STSS indicated very good internal consistency reliability with coefficient alpha levels of .93 for the total STS scale.

Compassion Fatigue Inventory (CFI)

The Compassion Fatigue Inventory was designed by Schad in 2021 that consist of 16 items to measure the development of compassion fatigue among psychologists. The use can however be expanded to include any profession with patient contact. The items in the CFI are formulated as statements and the answers should be given on a 5 point Likert scale where the response alternatives are: 1 = "Does not fit at all," 2 = "Fits poorly," 3 = "Fits partially," 4 = "Fits fairly well" and 5 = "Fits perfectly." CFI has shown good internal reliability of .910 (Eng et al., 2021).

Coping Orientation to Problems Experienced Inventory (Brief-COPE Inventory)

The 28-item COPE scale (Carver et al., 1989), which was theoretically established on bases on several models of coping, was reduced to the Brief-Cope. Reliability of this scale is 0.71. The items are graded 5 point Likert scales ranging from 1 to 4 (Matsumoto et al., 2020). The three subscales are listed below. The Problem-Focused Coping subscale consist of 8 items (2, 7, 10, 12, 14, 17, 23, 25), Emotion-Focused Coping subscale consist of 12 items (5, 9, 13, 15, 18, 20, 21, 22, 24, 26, 27, 28) and the Avoidant Coping subscale consist of 8 items 1(, 3, 4, 6, 8, 11, 16, 19).

Procedure

Oncology department nurses from the cities of Rawalpindi, Islamabad and Peshawar were approached. Data was collected using cross-sectional survey method designed to measure secondary traumatic stress, compassion fatigue, and coping styles. The instruments used in this study included; Secondary Traumatic Stress Scale (STSS), Compassion Fatigue Inventory (CFI), and the Brief COPE inventory for assessing coping styles. They were be informed about the purpose of the study and the right to confidentiality and discontinue with study. After having consent from them they were provided with questionnaires for measuring the variables. Participants were asked to complete the questionnaire during that time period to ensure consistency in responses.

Statistical Analysis

Collected data was analyzed using SPSS. Correlation analysis was used to find out the relationship of secondary traumatic stress, compassion fatigue and coping styles. Mediation analysis was used to find out the mediating role of coping styles between the mentioned variables. Simple linear regression analysis of STSS and CFI were done.

Time Frame

The study was completed in a 6 months' time period (Dec 2023 to June 2024).

Research Ethics

The study was conducted while following all ethical standards and values. The approval from the institutional review board (IRB) and authorization from the author of screening tools was

taken out before the data collection. After which data was collected from the participants. Detailed informed consent was provided to all participants, rationale of the study was explained. Ensure that participants understand their right to withdraw from the study at any point without facing any consequences, ensuring to safeguard the privacy of participants by keeping their identities confidential. They were informed that the data collected will be used exclusively for research purposes. All rights of the participants were granted. No harm were caused to the participants and no deception was involved. No financial benefits were involved in the study.

CHAPTER IV

RESULTS

Table 1

Demographic Characteristics of the Sample (N = 234)

	Frequency	Percentage
Gender		
Male	105	44.9
Female	129	55.1
Marital status		
Single	143	61.1
Married	90	38.5
Family system		
Joint	110	47.0
Nuclear	123	52.3
Education		
12 years	19	8.1
14 years	104	44.4
16 years	111	47.4
Religion		
Islam	186	79.5
Others	46	19.7
Socioeconomic status		
low class	11	4.7
middle class	209	89.3
upper class	13	5.6
Duration of job		
1-3 years	126	53.8
4-5 years	106	45.3

Monthly pay		
20,000-40,000	51	21.8
50,000-60,000	123	52.6
70,000-90,000	60	25.6
Household income		
50-80,000	7	3.0
80,000-1,5000	137	58.5
1,60000-2,50000	90	38.5

Table 01 shows the demographic characteristics of the sample along with frequency and percentage.

Table 2

Descriptive statistics and Reliability analysis for Secondary Traumatic Stress Scale, Compassion Fatigue Inventory and Brief COPE and it's subscales of the Stud (N = 234)

Scales	*N*	*α*	Range		Mean	SD	Skewness	Kurtosis
			Actual	Potential				
STSS	17	.78	19-68	5-85	44.67	9.73	.17	-.052
IS	5	.67	6-21	5-10	12.7	3.44	.45	-.32
AvS	7	.75	8-29	5-35	18.3	4.37	.13	-.16
ArS	5	.89	5-23	5-10	13.5	3.64	.11	-.12
CFI	16	.82	16-69	5-80	40.06	10.18	.54	.077
RC	9	.76	9-38	5-45	21.4	6.05	.62	-.24
SL	4	.88	4-20	5-20	10.33	3.09	.23	.21
WP	3	.69	3-15	5-15	9.73	3.42	-.28	-.63
COPE	28	.72	28-99	4-112	66.19	10.19	-.19	1.11
PF	8	.71	8-32	4-32	19.81	4.26	.48	.21
EF	12	.84	12-63	4-48	29.2	5.60	.71	2.04
AC	8	.70	7-28	4-32	17.1	3.94	.10	-.16

Note. STSS= Secondary Traumatic Stress Scale, IS=Intrusion subscale, AvS=Avoidance subscale, ArS=Arousal subscale, CFI= Compassion Fatigue Inventory, RC=Reduced compassion, SL=Social life, WP=Workplace, COPE= Coping Orientation to Problems Experienced Inventory, PF= Problem focused, EF= Emotion focused, AC=avoidant coping

Result in table 2 demonstrates significantly high Alpha Reliability Coefficient of STSS ranging from .78 which is good enough. Same is evident for the CFI as it ranges from .82 which also comes under good reliability. Alpha Reliability Coefficient of COPE range from .72 which is highly reliable. Results in tables shows that all scales are highly reliable measures for the assessment. Table shows the descriptive statistics for all study variables. The mean of STSS is 44.67 and standard deviation is 9.73. The mean of CFI is 16 while the standard deviation is 69. The mean of COPE is 28 and standard deviation is 99. Skewness and kurtosis values are also provided to assess the distribution of the data. It is observed that all the scales exhibit normal distributions within an acceptable range, as indicated by the skewness and kurtosis values falling within ±3.

Table 3

Correlations between Secondary Traumatic Stress Scale, Compassion Fatigue Inventory and Brief COPE and it's subscales of the Study (N=234)

Variables	**STSS**	**IS**	**AvS**	**ArS**	**CFI**	**RC**	**SL**	**WP**	**COPE**	**PF**	**EF**	**AC**
STSS	-											
IS	-.50**	-										
AvS	-.45**	.20*	-									
ArS	-.40**	.15	.18	-								
CFI	.63**	.30**	.25**	.35**	-							
RC	-.30**	.12	.22*	.18	.25**	-						
SL	-.35**	.25**	.12	.20*	.28**	.12	-					
WP	-.28**	.18	.14	.12	.22*	.20*	.18	-				
COPE	-.19**	.33**	.20*	.15	-.33**	-.15	-.20*	-.12	-			
PF	-.22*	.28**	.22*	.12*	-.18*	-.10	-.18	-.10	.35**	-		
EF	-.15*	.15	.15	.10	-.22*	-.12	-.12	-.08	.20*	.15	-	
AC	.12*	.10	.10	.10	.15*	-.05	-.15	-.10	.25**	.22*	.18	-

Note. STSS= Secondary Traumatic Stress Scale, IS=Intrusion subscale, AvS=Avoidance subscale, ArS=Arousal subscale, CFI= Compassion Fatigue Inventory, RC=Reduced compassion, SL=Social life, WP=Workplace, COPE= Coping Orientation to Problems Experienced Inventory, PF= Problem focused, EF= Emotion focused, AC=avoidant coping

The findings of the correlation table 3 indicate that PF has a significant negative correlation (-.18*) with CFI and a negative correlation (-.22*) with STSS. This suggests that lower levels of secondary traumatic stress and compassion fatigue are linked to higher levels of problem-focused coping. EF shows a negative relationship (-.22*) with CFI and a significant negative correlation (-

.15*) with STSS. This supports the hypothesis by showing that emotion-focused coping fatigue and traumatic stress. AC has a positive, significant connection with both CFI (.15**) and STSS (.12*). That are statistically significant, providing support for the hypothesis linking avoidant coping to increased levels of compassion fatigue and secondary traumatic stress.

Table 4

Means, Standard Deviations and t-values of gender among Study Variables (N =234)

	Men (*n* = 105)		**Women (*n*=129)**				***95% CI***		
Scales	***M***	***SD***	***M***	***SD***	***t(234)***	***p***	***LL***	***UL***	***Cohen's d***
STSS	44.6	10.41	44.6	9.18	.13	.98	-2.50	2.54	-
IS	15.2	3.45	15.3	3.60	-.21	.83	-1.12	.90	-0.03
AvS	14.8	3.98	14.5	3.75	.61	.54	-0.70	1.33	0.08
ArS	14.6	4.01	14.8	3.90	-.37	.71	-1.27	0.88	-0.05
CFI	38.28	10.44	41.5	9.79	-2.44	.01	-5.84	-.624	-0.62
RC	13.9	3.77	14.5	3.60	-1.17	.24	-1.55	0.39	-0.16
SL	12.6	4.22	12.9	3.90	-.56	.58	-1.44	0.82	-0.07
WP	11.8	4.00	12.3	3.98	-1.01	.31	-1.54	0.49	-0.12
COPE	66.31	11.37	66.1	9.18	.15	.87	-2.43	2.86	-
PF	24.5	6.11	25.0	5.98	-.59	.56	-1.90	1.03	-0.08
EF	21.4	5.77	21.3	5.62	.17	.86	-1.35	1.61	0.02
AC	20.4	5.90	19.8	6.01	.81	.42	-0.94	2.24	0.10

Note. STSS= Secondary Traumatic Stress Scale, IS=Intrusion subscale, AvS=Avoidance subscale, ArS=Arousal subscale, CFI= Compassion Fatigue Inventory, RC=Reduced compassion, SL=Social life, WP=Workplace, COPE= Coping Orientation to Problems Experienced Inventory, PF= Problem focused, EF= Emotion focused, AC=avoidant coping

Table 04 reveals the mean difference on gender of participants, findings show that there is only significant differences on compassion fatigue, in which female score higher (M= 41.51, SD= 9.79), as compared to males (M= 38.28, SD= 10.44). Women report a small impact size and a considerably higher compassion fatigue index (CFI) than men, indicating that they may be more susceptible to compassion fatigue. In general, secondary traumatic stress and coping mechanisms are similar for both genders, but compassion fatigue is more common in women.

Table 5

Simple linear regression analysis of Secondary Traumatic Stress Scale, Compassion Fatigue Inventory (N=234)

Variables	**CFI**			
	B	***S. E***	***β***	***T***
Constant	10.34	2.42		4.27
STSS	.665	.05	.63	12.5
R^2	.405			
Adjusted R^2	.402			

Note. STSS= Secondary Traumatic Stress Scale, CFI= Compassion Fatigue Inventory, SE=Standard errors, β= Standardized Coefficients, B =Regression coefficients

This table shows the regression analysis as direct effect of STSS on CFI. Regression coefficient (B) for SRSS is 0.665, showing that for every unit increase in STSS, the CFI score increases by 0.665 units. STSS has a considerable positive effect on CFI, as seen by its standardized coefficient (β) of 0.63. Given that the t-value for STSS is 12.5, which is significant ($p < 0.05$), it may be concluded that there is statistical support for a relationship between STSS and CFI. With an R^2 of 0.405, STSS tends to 40% of the variation in CFI. The adjusted R^2 value of 0.402 shows that this model with STSS as the predictor explains a significant percentage of the variance in CFI.

Table 6

Mediation of Coping Styles Between Secodary Traumatic Stres and Compassion Fatigue (N=234)

Effect	***β***	***SE***	***t***	***p***	***95% CI***	
					LLCI	***ULCI***
Direct Effect (X on Y) (STSS on CFI)	0.62	0.05	11.94	0.00	0.51	0.72
Indirect Effect (via COPE)	0.04	0.02	-	-	0.00	0.08
R^2	0.37					
R	0.19					

Note. Note. STSS= Secondary Traumatic Stress Scale, CFI= Compassion Fatigue Inventory, COPE= Coping Orientation to Problems Experienced Inventory, SE=Standard errors, β= Coefficients, CI=Confidence Interval,UL= Upper limit, LL= Lower Limit.

According to the findings, the direct effect of the independent variable (X) on the dependent variable (Y) is statistically significant ($\beta = 0.6224$, SE = 0.0521, $p < .001$). This indicates that for every one-unit increase in X, there is a corresponding increase in Y by approximately 0.6224 units. The indirect effect of X on Y through the mediator COPE is also statistically significant ($\beta = 0.0429$, SE = 0.0204). This suggests that part of the relationship between X and Y is mediated by COPE.

CHAPTER V

DISCUSSION

This study focuses on the analysis of the association between Secondary Traumatic Stress, Compassion fatigue and Coping styles. Oncology nursing presents unique challenges due to the emotional intensity and frequent exposure to patients' suffering and mortality. This chapter explores the intricate relationship between secondary traumatic stress (STS), compassion fatigue (CF), and coping styles among oncology nurses. Previous researches have been done to study the compassion fatigue, compassion satisfaction and burnout. A lack of literature was noted regarding the relationship among secondary traumatic stress, compassion fatigue with the mediating role of coping styles among oncology nurses. Therefore, this study will bridge the literature gap in this context.

The purpose of the study was to investigate how, among oncology nurses, problem- and emotion-focused coping strategies moderate the link between secondary traumatic stress and compassion fatigue. The findings suggest that problem-focused and emotion-focused coping strategies both have important mediation roles, while they differ significantly in terms of how well they work.

Oncology nurses play a critical role in caring for patients with cancer, but this work can come at personal cost. Secondary Traumatic Stress and Compassion Fatigue are common experience among oncology nurses, leading to burnout, decrease job satisfaction and compromised care.

Studies have consistently shown a positive correlation between STS and CF among oncology nurses.

The **first hypothesis** shows a significant positive relationship between Secondary traumatic stress and compassion fatigue among oncology nurses. Secondary Traumatic Stress and Compassion

Fatigue are interconnected concepts that have been extensively researched in the context of health care professionals' well-being. Studies have consistently demonstrated a positive relationship between STS and CF indicating that individuals experience STS are more likely to develop CF. For example, a study found that health care professionals who experienced STS were more likely to report symptoms of CF, including emotional exhaustion and reduced empathy. Similarly, a study by compassion fatigue resilience task force (2019) found that STS was a significant predictor of CF among nurses (brady, 2018).

The results are consistent with previous research showing a robust positive correlation between STS and CF. Because of the cumulative emotional strain of caring for patients with severe and terminal illnesses, oncology nurses exposed to high levels of STS are more likely to develop CF (Figley, 2017; Stamm, 2010). This study highlights the necessity for therapies to address these stressors by confirming that STS has a substantial role in CF.

Studies have demonstrated that healthcare professionals experiencing STS are more likely to develop CF (Jenkins, 2017). Study found that STS was significantly correlated with CF among mental health professionals and also found that STS predicted CF among nurses (Sabo, 2018).

The **second hypothesis** shows a significant impact of Coping styles as it mediates the relationship between secondary traumatic stress and compassion fatigue among oncology nurses.

The **third hypothesis** shows that problem-solving coping style and emotion focused coping style will negatively predict relationship between secondary traumatic stress and compassion fatigue.

Another study from South Korea found that emotional exhaustion and depersonalization among nurses was reduced when emotion–focused and problem–focused coping strategies were used (Shin et al., 2014). A broad analysis of the findings in this study emphasized what many

authors, like Jenkins and Warren (2012) and Kelly, Runge, and Spencer (2015), who remarked that nurses' feeling of CF can lead to poor judgment, loss of empathy, and decreased productivity, risking patient safety and lowering quality of care. Problem-solving significantly predicted CS, and avoidance significantly predicted SSS. Better levels of satisfaction were achieved by improved problem–solving strategies, which aided the nurses to address the sources of stress (Potter, Deshields, & Rodriguez, 2013). While this study focused mainly on exploring coping strategies in nurses, other studies addressed issues concerning the work environment and other personal characteristics of the nurses, such as age and years of experience, which some researchers reported as significant predictors of BO (Kelly et al., 2015).

It was discovered that problem-focused coping techniques, which entail actively confronting and controlling the stressor, regulate the link between secondary traumatic stress (STS) and compassion fatigue (CF) to some extent. Despite having high STS levels, nurses who practiced problem-focused coping, such as making plans and looking for workable solutions, reported having lower levels of CF. This result confirms earlier studies showing that problem-focused coping can successfully lower stress and burnout by assisting people in addressing stressors more head-on (Lazarus & Folkman, 1984; Park et al., 2020).

However, variables including the accessibility of resources and support networks may have an impact on how well problem-focused coping mediates the STS-CF link. For example, the effect of problem-focused coping on CF reduction may be restricted if oncology nurses do not have sufficient organizational support or resources (van Berkel et al., 2021).

A moderating function was also played by emotion-focused coping techniques, which focus on controlling emotional reactions as opposed to the stressor itself. Nurses with different degrees of success in controlling compassion fatigue (CF) used emotion-focused tactics, such as seeking

out social support and practicing relaxation techniques. The success of emotion-focused coping depends on the type of coping methods employed, even though it can assist reduce emotional distress (Garnefski et al., 2017).

It has been discovered that when emotion-focused coping is paired with adaptive techniques like emotional regulation and mindfulness, it works better. This result is consistent with studies (Matos et al., 2019; West et al., 2020) that demonstrate adaptive emotion-focused coping can act as a buffer against the deleterious effects of STS and CF. On the other hand, maladaptive emotion-focused techniques like rumination should be addressed as they have the potential to worsen CF.

The **fourth hypothesis** shows that avoidance coping style strengthen the positive relationship between secondary traumatic stress and compassion fatigue.

Higher mean scores on the avoidance and seeking social support subscales were associated with lower mean scores on the secondary stress syndrome. This finding indicated the importance of a social support system within the work environment, which is another factor influencing nurses' ability to accommodate the stressful nature of the critical care setting. The literature also suggested that a reduction in the level of avoidance leads to lower stress levels (Neff & Germer, 2013). Findings in the present study may be extrapolated to suggest that difficulties with coping strategies are the key explanatory mechanism underlying the presence of BO and CF. Another report in the literature suggested that higher levels of BO and dissatisfaction were associated with a poor work environment and the social support found to be lacking (McHugh, Kutney-Lee, Cimiotti, Sloane, & Aiken, 2011). This environment with a weak social support system could promote higher levels of CF among nurses (Thompson, 2013).

Limitations and Future Recommendations

There are a number of limitations related to this study that necessitate applying the findings with caution. One limitation of the study is that the measurement of STS, CF and Coping Styles was completed at a single period in time. There is potential that a nurse's perception changes over time as the work-related conditions change, in addition to being subjective and may be affected by factors that were not examined in this study. The low response rate may have led to a selection bias in the sample. Additionally, of the nurses who completed it, not all of them answered all of the questionnaire items. For instance, a proportion of respondents did not complete all of the demographic items. The omission of these responses makes the profile of the nurses, who participated, difficult to determine.

Three key elements in CF prevention are education, awareness, and self-care. Too often in the fast-paced environment of a hospital or clinic, health-care workers do not take time for self-care activities (Wentzel & Brysiewicz, 2014), thus it is helpful for the health-care setting to incorporate these items into the structure of their organization (Fleming et al., 2020; Slatten et al., 2020). In addition, working in a hospital setting can foster an environment of "toughness." Staff in the hospital may not want to admit to themselves or others that they are affected by the trauma they see in their patients on a daily basis (Crowe, 2016). The strategies for combating compassion fatigue tend to be linked to being aware of and potentially changing organizational structures in the health-care setting (Slatten et al., 2020). For example, in our sample of nurses, we might look at hours worked and patient load in order to prevent or decrease compassion fatigue. Exploration into alternative work schedules may be beneficial to the long-term mental health of the nursing workforce.

An increased understanding of CF and burnout may prove beneficial in improving nurse job satisfaction, and therefore, increased quality patient care. Some additional techniques put forth by nurse managers as effective strategies include diversifying one's caseload, mentorship that can include teaching how to help maintain a professional distance in one's patient care, offering holistic self-care activities at work, and an organizational structure that supports human development (Slatten et al., 2020). It is important that the field of nursing address support, strategies, and solutions that may create a higher level of work satisfaction.

We believe it would be beneficial to future research to explore the connection of certification related to CF. We also think it is important to continue to examine the correlation of hours worked to STS and CF. Lastly, we believe it could be important for future research to include questions regarding management, staffing ratios, and the ability of floor staff to make changes within their own units as this may add to the understanding of nurses' experience. The utilization of focus groups and qualitative interview questions could prove to deepen the understanding of nurses' experience.

Implications

The findings of this study has practical, theoretical and methodological implications as:

The study analyzes the theory of Figley's compassion fatigue and stress model and contributes to the application of this theory in terms of compassion fatigue and secondary traumatic stress. The study is beneficial for oncology department to take actions to reduce secondary traumatic stress and compassion fatigue in an effective manner, considering the given predictors of it in the current study.

Compared to earlier research, this study showed a higher occurrence of compassion fatigue. Notably, it is imperative to foster comprehension of second-victim experiences and regulate maladaptive coping styles.

Prior to support programs, hospitals and nurse leaders should offer training programs to nurses. These programs should focus on raising awareness of the benefits of seeking help in order to develop positive coping strategies, as well as on improving a thorough understanding of the second-victim experience and the drawbacks of negative coping styles.

The results of the study highlight the significance of creating focused interventions to improve cancer nurses' coping mechanisms. Healthcare organizations should think about introducing programs that: Considering the important role that problem-focused and emotion-focused coping play in controlling Secondary Traumatic Stress and Compassion Fatigue. Encourage problem-focused coping by creating educational programs that provide nurses the tools they need to solve problems and deal with stress at work. Workshops on resource usage, stress management, and time management may fall under this category. Provide emotional health support programs including mindfulness-based stress reduction (MBSR) and resilience training. Access to peer support groups and counselling can also help with CF reduction and emotional regulation (Duarte & Pinto-Gouveia, 2016). Create all-encompassing programs that target both emotion- and problem-focused.

Conclusion

Addressing these gaps in research is essential for developing a comprehensive understanding of the relationship between secondary traumatic stress and compassion fatigue among oncology nurses, with a particular focus on the mediating role of coping styles. This understanding is crucial for creating effective interventions that support the mental health and well-being of oncology nurses, ultimately improving patient care and nurse retention. This study offers insightful information about the mediating functions of emotion- and problem-focused coping strategies in the connection between oncology nurses' compassion fatigue and secondary traumatic stress. The results show that in order to improve the wellbeing of oncology nurses, specific interventions that address both kinds of coping methods are necessary. On the basis of these results, future studies should investigate the dynamics of coping and stress management in high-stress occupations.

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APPENDICES

APPENDIX A

(Consent Form)

I am Nafeesa Ejaz, a student of MS Clinical Psychology at Bahria University Islamabad, the partial fulfillment of my degree required conducting a research thesis. For this purpose, I am exploring the relationship among Secondary Traumatic Stress, Compassion Fatigue and Psychological Distress among oncology nurses: the mediating role of Coping Style. I am here requesting you to fill this questionnaire form according to your own experience, attitudes, behavior, knowledge and experience. I guarantee you that the information provided by you will be completely confidential and anonymous, and response will only be utilized for research purposes and will not be used for personal benefit, it will take only 20 to 25 minutes to complete the questionnaire. You also have the right to withdraw at any stage during the research without any penalty. However, I'll be very thankful if you complete this questionnaire till the end. By submitting this form, you are indicating that you have read the description of the study and that you agree to the terms as described.

I agree to participate in the research study. I understand the purpose and nature of the study and I am participating voluntarily. I understand that I can withdraw from the study at any time without any penalty or consequences.

_____

SIGNATURE

APPENDIX B

(Demographic Sheet)

1. **Gender**
    - Male
    - Female
2. **Marital status**
    - Single
    - Married
3. **Family system**
    - Joint
    - Nuclear
4. **Education (mention in years)**

    _____

5. **Religion**
    - Islam
    - Others
6. **Socioeconomic status**
    - Lower class
    - Middle class
    - Upper class
7. **Duration of job**

    _____

8. **Monthly pay**

_____

9. **Household income**

_____

10. **Ethnicity**

- Punjabi
- Pakhtoon
- Sindhi
- Balochi
- Hindkowans
- Kashmiri
- Others

APPENDIX C

(Secondary Traumatic Stress Scale)

Read each statement then indicate how frequently the statement was true for you in the past seven (7) days by circling the corresponding number next to the statement.		1= Never (N) 2= Rarely (R) 3= Occasionally (O) 4= Oftenly (Of) 5= Very often (VO)				
S.#	**Statements**	**N**	**R**	**O**	**Of**	**VO**
1.	I felt emotionally numb	1	2	3	4	5
2.	My heart started pounding when I thought about my work with clients	1	2	3	4	5
3.	It seemed as if I was reliving the trauma(s) experienced by my client(s)	1	2	3	4	5
4.	I had trouble sleeping	1	2	3	4	5
5.	I felt discouraged about the future	1	2	3	4	5
6.	Reminders of my work with clients upset me	1	2	3	4	5
7.	I had little interest in being around others	1	2	3	4	5
8.	I felt jumpy	1	2	3	4	5
9.	I was less active than usual	1	2	3	4	5
10.	I thought about my work with clients when I didn't intend to	1	2	3	4	5
11.	I had trouble concentrating	1	2	3	4	5
12.	I avoided people, places, or things that reminded me of my work with clients	1	2	3	4	5
13.	I had disturbing dreams about my work with clients	1	2	3	4	5
14.	I wanted to avoid working with some clients	1	2	3	4	5
15.	I was easily annoyed	1	2	3	4	5
16.	I expected something bad to happen	1	2	3	4	5

17.	I noticed gaps in my memory about client sessions	1	2	3	4	5

APPENDIX D

(Compassion Fatigue Inventory)

Read each statement then indicate how frequently the statement was true for you in the past seven (7) days by circling the corresponding number next to the statement.	1 = Does not fit at all 2 = Fits poorly 3 = Fits partially 4 = Fits fairly well 5 = Fits perfectly

S.#	**Statements**	**DF**	**FPo**	**FPa**	**FF**	**FPer**
1.	My will to help has declined.	1	2	3	4	5
2.	I have started to judge my patients in a way I would not want to.	1	2	3	4	5
3.	I have started to feel a growing reluctance towards seeing my patients	1	2	3	4	5
4.	I find it more difficult to respond to demanding patients in the way I would want to	1	2	3	4	5
5.	I feel irritated when patients complain.	1	2	3	4	5
6.	It is becoming increasingly harder for me to handle the complexity of clients with comorbidity.	1	2	3	4	5
7.	I have noticed that I distance myself from other peoples' pain more often than before	1	2	3	4	5
8.	My work bores me more often than before	1	2	3	4	5
9.	I have noticed that I try to stay engaged with my patients even though I do not have the energy for it.	1	2	3	4	5
10.	I have noticed that my patience in my personal relationships has dwindled	1	2	3	4	5
11.	I have started to withdraw from social interaction.	1	2	3	4	5
12.	I feel that I do not have the same energy to engage in the problems of my close ones	1	2	3	4	5
13.	I have started to avoid spare time activities that are intellectually challenging	1	2	3	4	5

14.	I feel that my workplace provides care that is in accordance with my values (rev)	1	2	3	4	5
15.	I have enough resources at my workplace to provide my patients with the type of care they need (rev).	1	2	3	4	5
16.	I feel that there are clear rules and regulations for how I should work (rev).	1	2	3	4	5

APPENDIX E

(Brief COPE Inventory)

S.#		I haven't been doing this at all	A little bit	A medium amount	I've been doing this a lot
1.	I've been turning to work or other activities to take my mind off things	1	2	3	4
2.	I've been concentrating my efforts on doing something about the situation I'm in	1	2	3	4
3.	I've been saying to myself "this isn't real	1	2	3	4
4.	I've been using alcohol or other drugs to make myself feel better	**1**	**2**	**3**	**4**
5.	I've been getting emotional support from others	**1**	**2**	**3**	**4**
6.	I've been giving up trying to deal with it	**1**	**2**	**3**	**4**
7.	I've been taking action to try to make the situation better.	**1**	**2**	**3**	**4**
8.	I've been refusing to believe that it has happened	**1**	**2**	**3**	**4**
9.	I've been saying things to let my unpleasant feelings escape	**1**	**2**	**3**	**4**
10.	I've been getting help and advice from other people.	**1**	**2**	**3**	**4**
11.	I've been using alcohol or other drugs to help 21me get through it	**1**	**2**	**3**	**4**
12.	I'v1e been trying to see it in a different light, to make it seem more positive	**1**	**2**	**3**	**4**

13.	I've been criticizing myself	**1**	**2**	**3**	**4**
14.	I've been trying to come up with a strategy about what to do	**1**	**2**	**3**	**4**
15.	I've been getting comfort and understanding from someone	**1**	**2**	**3**	**4**
16.	I've been giving up the attempt to cope	**1**	**2**	**3**	**4**
17.	I've been looking for something good in what is happening	**1**	**2**	**3**	**4**
18.	I've been making jokes about it	**1**	**2**	**3**	**4**
19.	I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping	**1**	**2**	**3**	**4**
20.	I've been accepting the reality of the fact that it has happened	**1**	**2**	**3**	**4**
21.	I've been expressing my negative feelings	**1**	**2**	**3**	**4**
22.	I've been trying to find comfort in my religion or spiritual beliefs	**1**	**2**	**3**	**4**
23.	I've been trying to get advice or help from other people about what to do	**1**	**2**	**3**	**4**
24.	I've been learning to live with it	**1**	**2**	**3**	**4**
25.	I've been thinking hard about what steps to take	**1**	**2**	**3**	**4**
26.	I've been blaming myself for things that happened	**1**	**2**	**3**	**4**

27.	I've been praying or meditating	**1**	**2**	**3**	**4**
28.	I've been making fun of the situation	**1**	**2**	**3**	**4**

APPENDIX F

(Permission Letter)

Bahria University
Discovering Knowledge

February 29, 2024

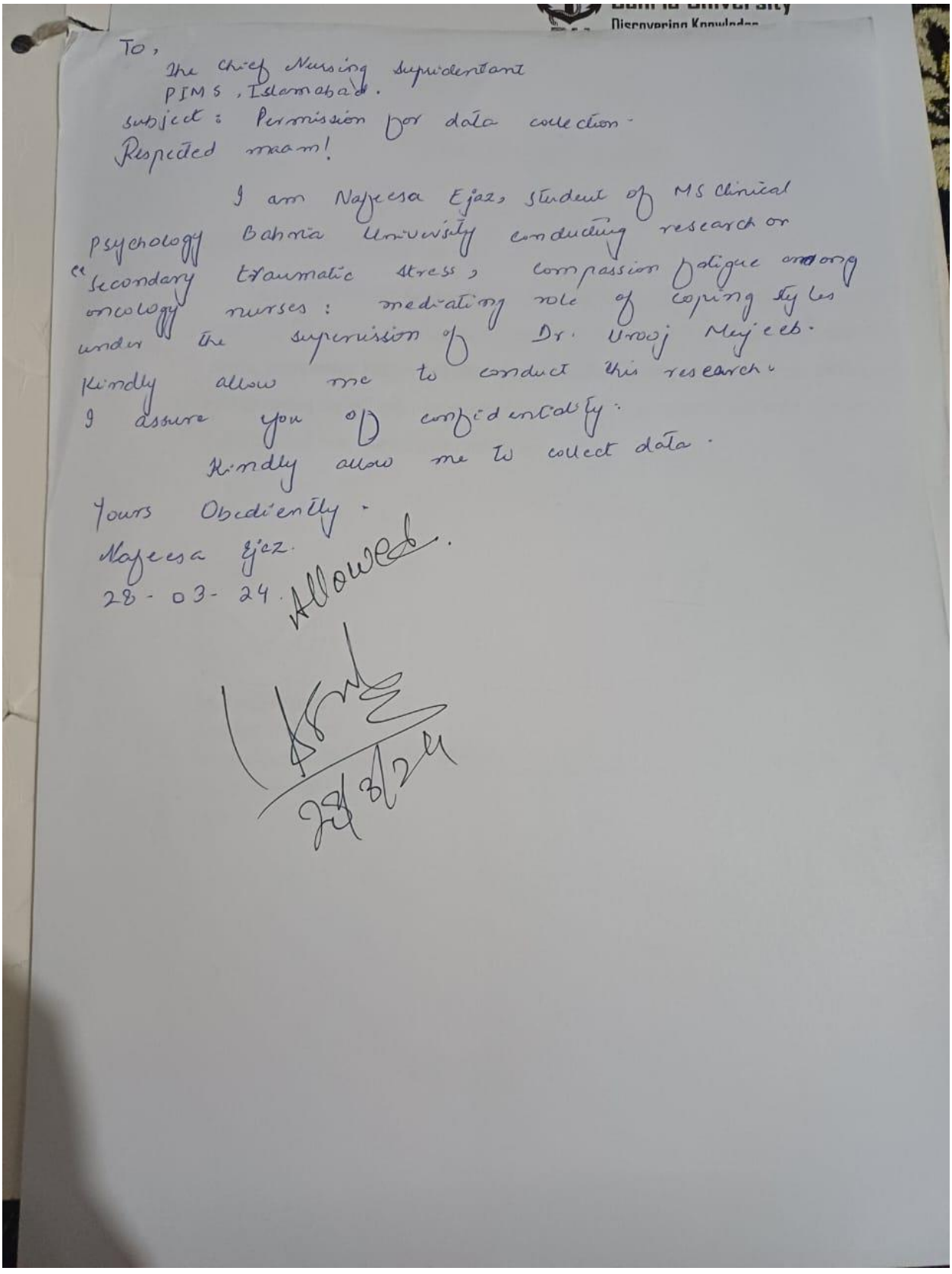
TO WHOM IT MAY CONCERN

REQUEST FOR DATA COLLECTION

It is stated that **Ms. Nafeesa Ejaz** Enrollment No. 01-275222-024 is a student of MS Clinical Psychology Bahria University Islamabad Campus conducting research on "**Secondary traumatic stress, compassion fatigue and psychological distress among oncology nurses: mediating role of coping styles**" under supervision of undersigned. It is requested that kindly allow her to collect the data from your esteemed institution.

Regards,

Dr. Arooj Mujeeb
Assistant Professor
Bahria School of Professional Psychology
Bahria University
E-8 Islamabad



Bahria University
Discovering Knowledge

To,
The Chief Nursing Superintendent
PIMS, Islamabad.

subject: Permission for data collection.

Respected maam!

I am Najeesa Ejaz, student of MS Clinical Psychology Bahria University conducting research on "Secondary traumatic stress, compassion fatigue among oncology nurses: mediating role of coping styles" under the supervision of Dr. Urooj Mujeeb.

Kindly allow me to conduct this research.

I assure you of confidentiality.

Kindly allow me to collect data.

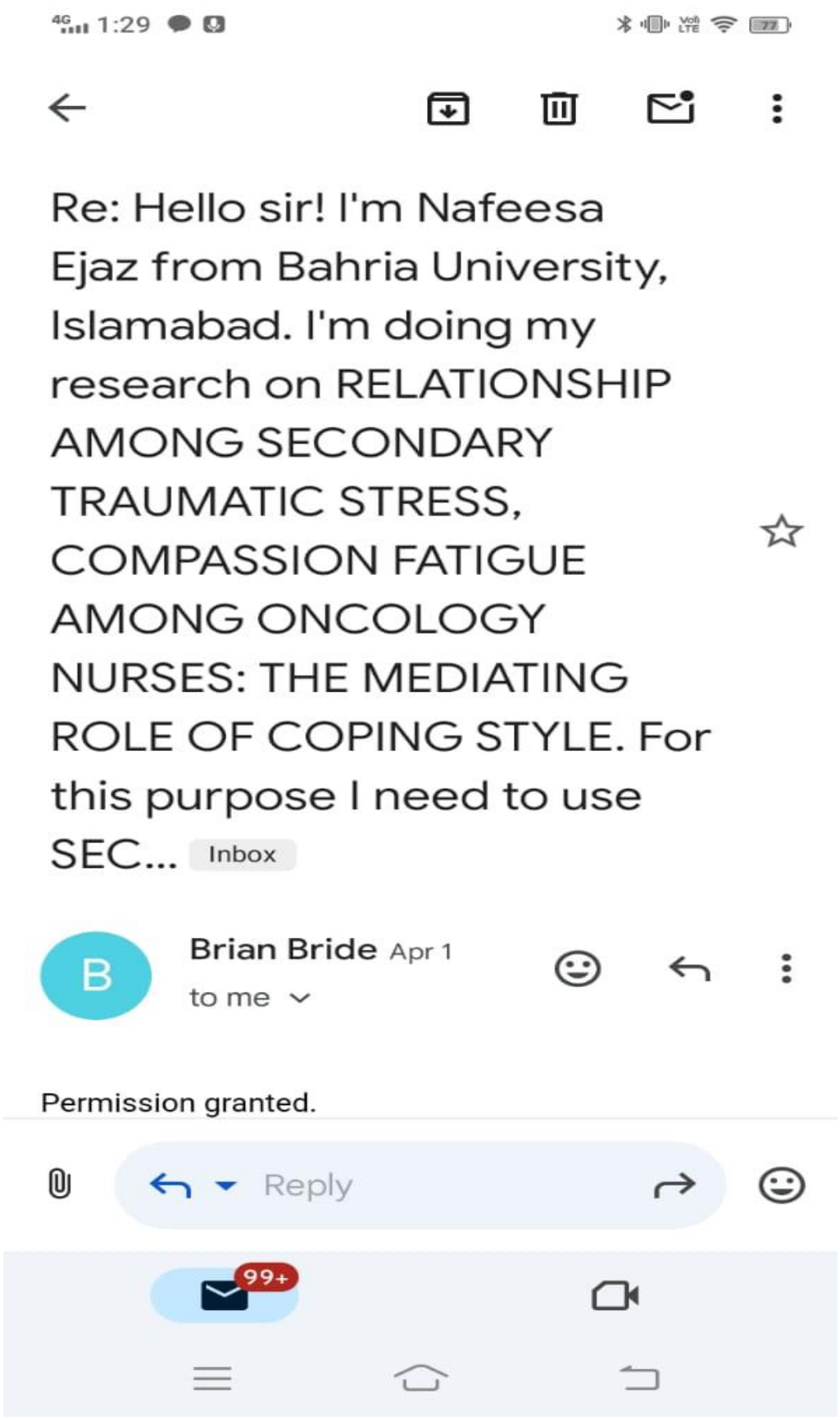
Yours Obediently.

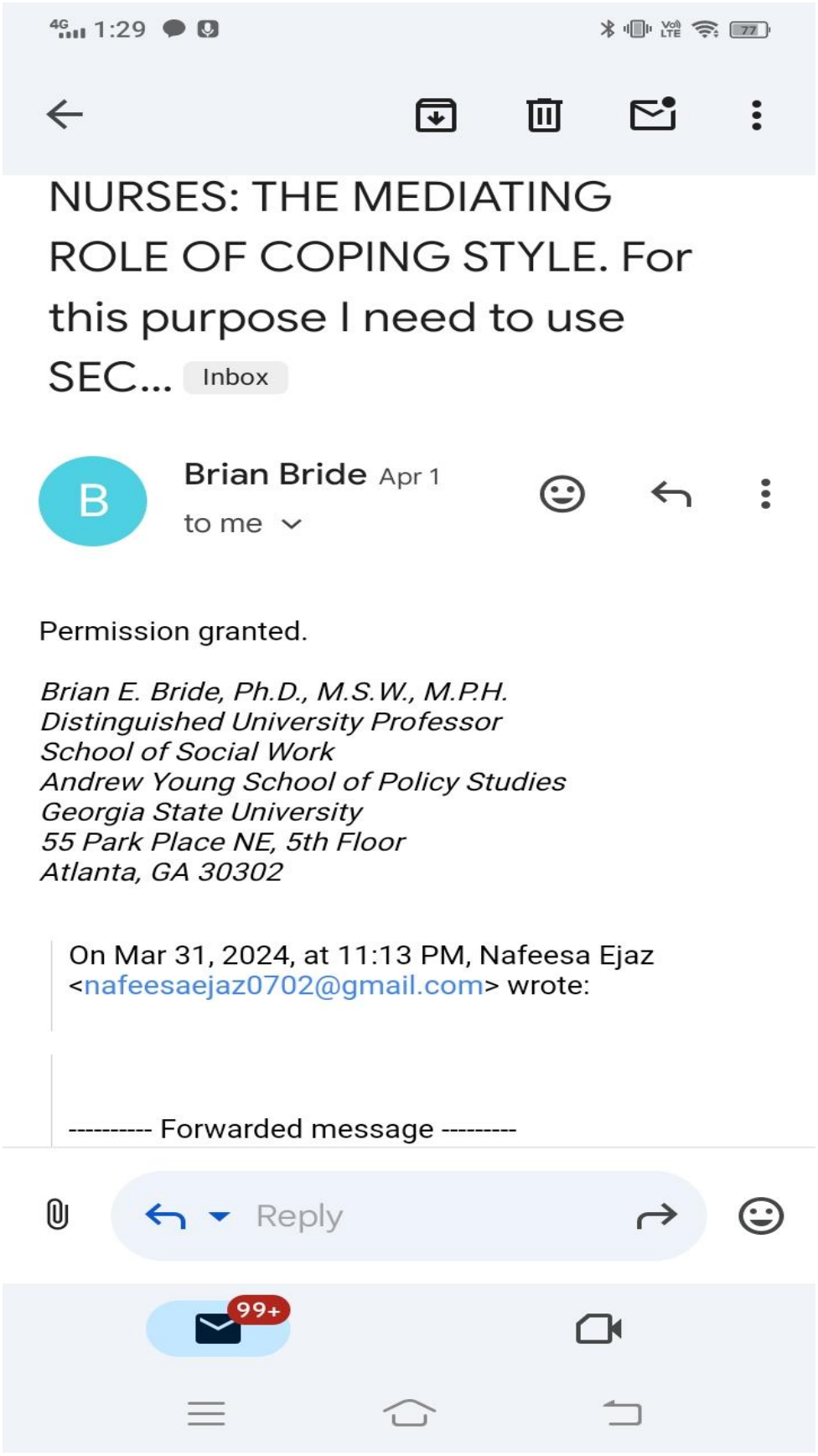
Najeesa Ejaz.

28-03-24.

Allowed.

28/3/24


1:29
Re: Hello sir! I'm Nafeesa Ejaz from Bahria University, Islamabad. I'm doing my research on RELATIONSHIP AMONG SECONDARY TRAUMATIC STRESS, COMPASSION FATIGUE AMONG ONCOLOGY NURSES: THE MEDIATING ROLE OF COPING STYLE. For this purpose I need to use SEC...
Inbox
B
Brian Bride Apr 1
to me
Permission granted.
Reply
99+



1:29

NURSES: THE MEDIATING ROLE OF COPING STYLE. For this purpose I need to use SEC... Inbox

B

Brian Bride Apr 1

to me

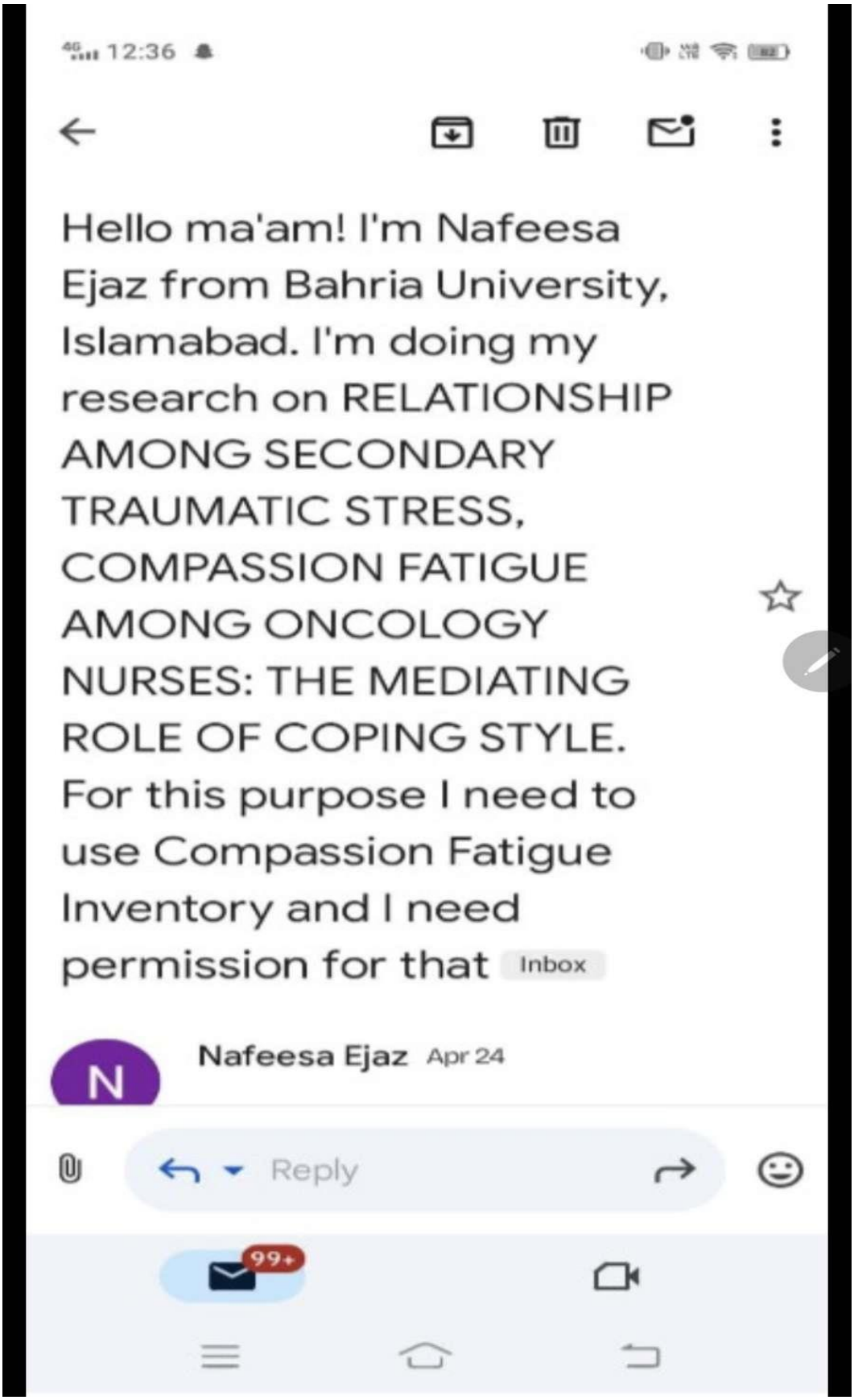
Permission granted.

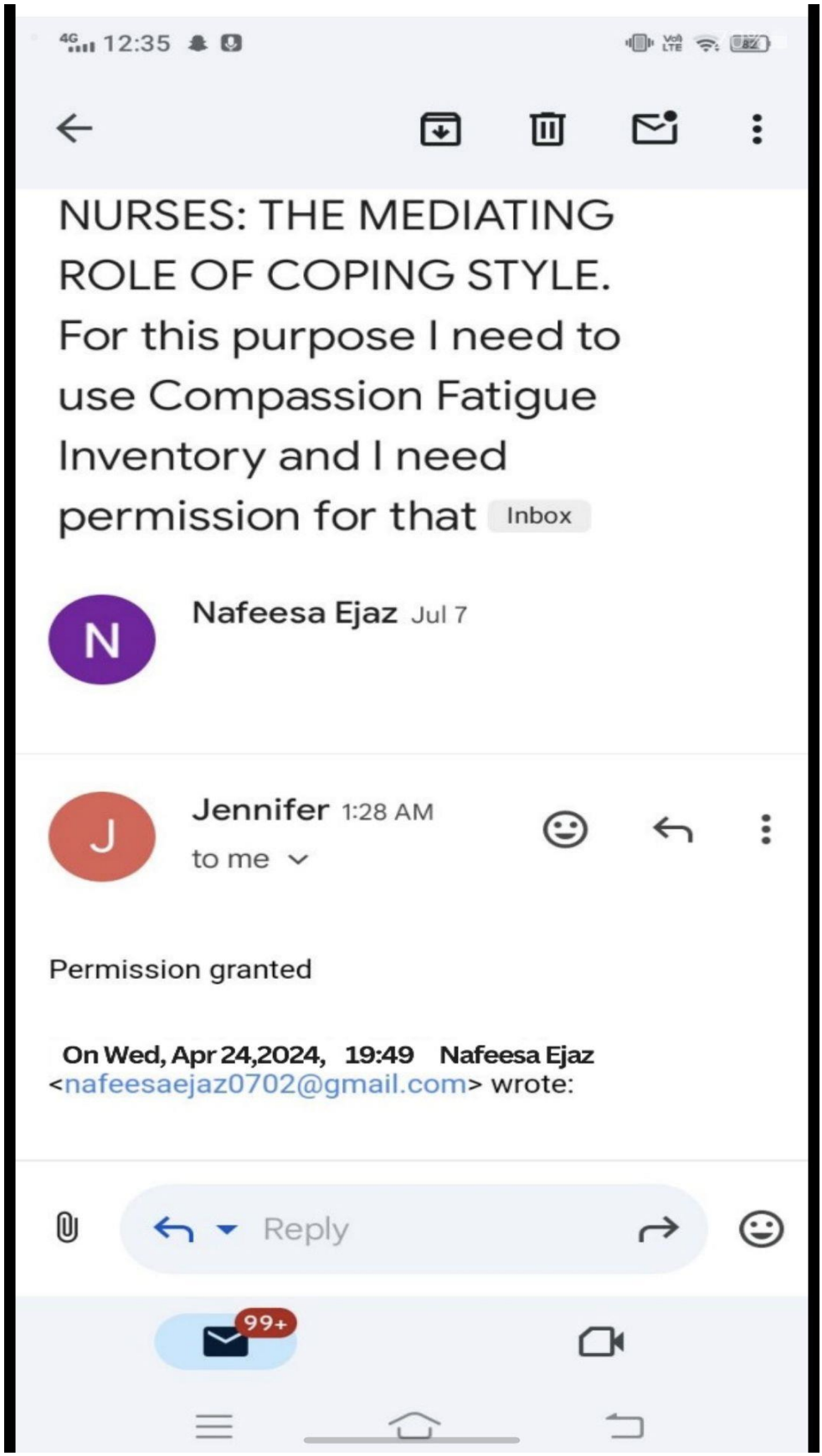
Brian E. Bride, Ph.D., M.S.W., M.P.H.
Distinguished University Professor
School of Social Work
Andrew Young School of Policy Studies
Georgia State University
55 Park Place NE, 5th Floor
Atlanta, GA 30302

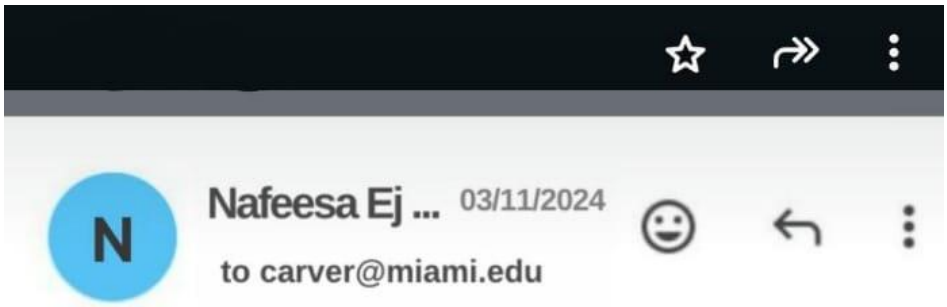
> On Mar 31, 2024, at 11:13 PM, Nafeesa Ejaz <nafeesaejaz0702@gmail.com> wrote:
>
> ---------- Forwarded message ---------

Reply

99+


12:36
Hello ma'am! I'm Nafeesa Ejaz from Bahria University, Islamabad. I'm doing my research on RELATIONSHIP AMONG SECONDARY TRAUMATIC STRESS, COMPASSION FATIGUE AMONG ONCOLOGY NURSES: THE MEDIATING ROLE OF COPING STYLE. For this purpose I need to use Compassion Fatigue Inventory and I need permission for that
Inbox
N
Nafeesa Ejaz Apr 24
Reply
99+

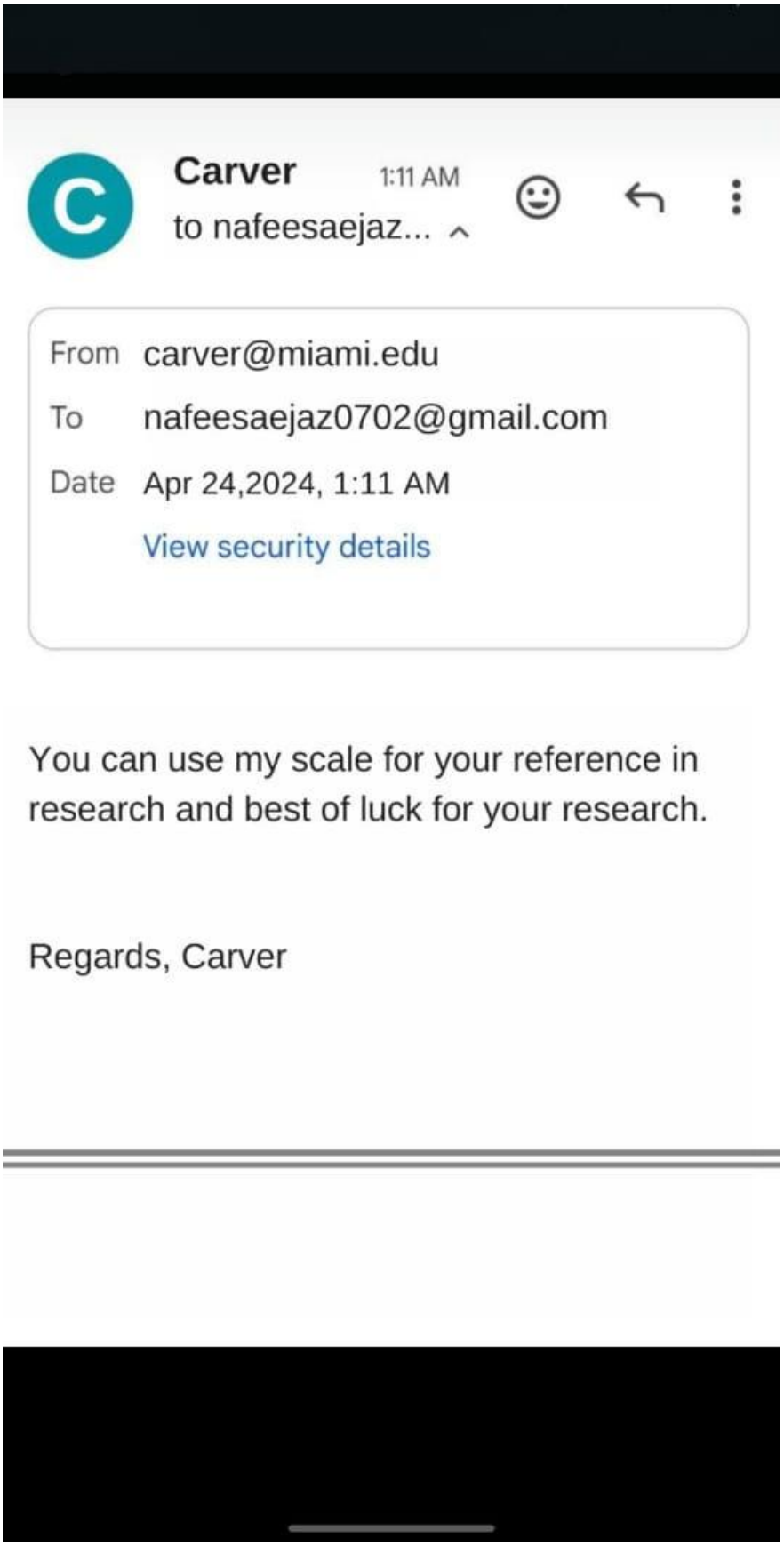

12:35
NURSES: THE MEDIATING ROLE OF COPING STYLE. For this purpose I need to use Compassion Fatigue Inventory and I need permission for that
Inbox
N
Nafeesa Ejaz Jul 7
J
Jennifer 1:28 AM
to me
Permission granted
On Wed, Apr 24,2024, 19:49 Nafeesa Ejaz <nafeesaejaz0702@gmail.com> wrote:
Reply
99+



Dear Sir,

Hello! I'm Nafeesa Ejaz from Bahria University, Islamabad. I'm doing my research on relationship among secondary traumatic stress, compassion fatigue among oncology nurses: the mediating role of coping style. For this purpose I need to use Brief COPE and I need permission for that.

Kind Regards, Nafeesa



Carver 1:11 AM

to nafeesaejaz...

From carver@miami.edu

To nafeesaejaz0702@gmail.com

Date Apr 24,2024, 1:11 AM

View security details

You can use my scale for your reference in research and best of luck for your research.

Regards, Carver

APPENDIX G

(Plagiarism Report)