Emotional Effects of Vicarious Trauma on Health Care Services Delivered Among Nurses at AGC Tenwek Hospital in Bomet County, Kenya.

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ABSTRACT

Vicarious trauma can affect nurses' emotional wellbeing and their capacity to deliver quality healthcare services. This study examined the relationship between the emotional effects of vicarious trauma and healthcare service delivery among nurses at AGC Tenwek Hospital in Bomet County, Kenya. Guided by Constructivist Self-Development Theory and Resilience Theory, the study adopted a mixed-methods approach involving 174 nurses drawn from a target population of 307 registered nurses. Quantitative data were collected using structured questionnaires, while qualitative data were obtained through semi-structured interviews. Quantitative data were analysed using SPSS version 28, with descriptive statistics, Pearson correlation and multiple linear regression, while qualitative data were analysed thematically. The findings revealed that nurses experienced emotional effects associated with exposure to patients' traumatic clinical experiences, including emotional exhaustion, guilt, anxiety and burnout. Pearson correlation analysis indicated a negative relationship between emotional effects of vicarious trauma and healthcare service delivery ($r=-0.546$). Regression analysis further showed that emotional effects had a negative and statistically significant association with healthcare service delivery ($B=-0.234$, $\beta=-0.203$, $p=0.010$), after accounting for other predictors in the model. These findings suggest that greater emotional distress among nurses is associated with poorer perceived healthcare service delivery. The study recommends that AGC Tenwek Hospital strengthen staff counselling, psychological support, peer-support systems and resilience-building programmes to promote nurses' emotional wellbeing and sustain compassionate, quality healthcare delivery.

Keywords: Vicarious trauma, emotional effects, healthcare service delivery, nurses, AGC Tenwek Hospital, Kenya.

INTRODUCTION

Vicarious trauma (VT) is an occupational psychological response that may develop when healthcare professionals are repeatedly exposed to the traumatic experiences, suffering, and distress of the patients they care for. Closely related to secondary traumatic stress (STS), vicarious trauma can manifest through emotional exhaustion, anxiety, intrusive thoughts, heightened distress, compassion fatigue, and reduced empathy. These effects may compromise healthcare professionals' psychological well-being and their ability to provide compassionate, responsive, and patient-centred care (Wu et al., 2024). Although burnout is commonly associated with prolonged occupational stress, vicarious trauma and secondary traumatic stress may emerge following exposure to particularly distressing experiences or repeated encounters with patients' trauma (Kennedy & Booth, 2022). Consequently, understanding the emotional effects of vicarious trauma is important for protecting healthcare workers and sustaining the quality of services they deliver.

Globally, healthcare professionals working in emergency departments, critical care units, and other high-intensity clinical environments are particularly vulnerable to the emotional consequences of repeated exposure to traumatic events. Nurses frequently encounter severe injuries, life-threatening illnesses, death, bereavement, and the emotional suffering of patients and their families. Such experiences may generate persistent psychological distress and affect nurses' emotional availability, interpersonal relationships, professional judgement, and capacity to maintain therapeutic relationships with patients. Research across different settings has increasingly recognised the occupational consequences of vicarious trauma among healthcare and other helping professionals (Owen, 2024; Toporek, 2022; Chermont, 2025; De Lyra, 2024; Nuttman-Shwartz, 2023; Hlomuka, 2024; Van Niekerk, 2024; Uwamahoro, 2024; Tarigo & Ndanu, 2022; Mwaura, 2022). Evidence concerning trauma-related distress among healthcare professionals also highlights the importance of examining workplace conditions and coping mechanisms when designing interventions to protect their psychological well-being.

The emotional effects of vicarious trauma are particularly relevant to nurses because their responsibilities extend beyond clinical procedures to include continuous interaction with patients experiencing pain, fear, uncertainty, and loss. Repeated exposure to these experiences may contribute to sadness, helplessness, irritability, anxiety, emotional detachment, and diminished compassion. These responses can affect nurses' interactions with patients, their ability to communicate effectively, and their responsiveness to patients' emotional and clinical needs. Studies have highlighted the emotional burden associated with supporting trauma-affected individuals and the potential for this burden to affect professionals providing care (Owen & Toporek, 2022; Nuttman-Shwartz, 2023). Chermont (2025) further reported that mindfulness and self-care practices helped trainee therapists manage distress associated with traumatic cases. However, repeated exposure to traumatic experiences may continue to produce psychological disturbance among healthcare professionals, emphasising the need for appropriate workplace support and effective coping strategies (De Lyra, 2024).

In Africa, healthcare professionals operate in diverse clinical environments where exposure to trauma, high patient demands, and resource constraints may compound occupational stress. The emotional consequences of vicarious trauma are therefore important not only for individual nurses but also for healthcare organisations concerned with staff retention, patient safety, and continuity of care. Studies conducted in different settings have contributed to the growing recognition of vicarious trauma among healthcare professionals and other practitioners who regularly encounter traumatic experiences (Hlomuka, 2024; Van Niekerk, 2024; Uwamahoro, 2024). Nevertheless, the extent and manifestation of these emotional effects may differ according to clinical responsibilities, working conditions, available support systems, and the nature of patients' traumatic experiences. Context-specific investigations are therefore necessary to establish how vicarious trauma affects nurses in different healthcare environments.

In Kenya, emerging evidence indicates that vicarious trauma is a relevant occupational concern among healthcare professionals. A study conducted at a major teaching hospital reportedly found that 47.5% of participants experienced various symptoms of vicarious trauma, with some indicating that these symptoms affected their work with patients (Daystar University, 2023). Similarly, Tarigo and Ndanu (2022) reported that, among 130 healthcare workers drawn from different departments of a major teaching hospital in Kenya, 10% experienced high levels of vicarious trauma, 49.2% moderate levels, and 40.8% low levels. Research involving psychotherapists in Nairobi has also described symptoms associated with compassion fatigue and secondary traumatic stress and their implications for the quality of care provided to clients (Mwaura, 2022). Although these findings suggest that trauma-related emotional distress warrants attention within Kenyan healthcare settings, the available evidence presented here provides limited insight into the specific emotional effects experienced by nurses in rural, faith-based referral hospitals and how these effects influence healthcare service delivery.

AGC Tenwek Hospital, a Level 5 referral and teaching hospital located in Bomet County in Kenya's South Rift region, provides an important setting for examining this concern. The hospital receives patients requiring specialised and emergency care, including those affected by road traffic accidents, critical illnesses, and other traumatic experiences (Tenwek Hospital, n.d.). Nurses working in such an environment may repeatedly encounter patients' physical suffering, psychological distress, severe injuries, and death. These experiences may contribute to emotional exhaustion, anxiety, sadness, helplessness, and reduced empathy, potentially affecting nurses' communication, responsiveness, and ability to maintain supportive relationships with patients and their

families. The demands associated with caring for patients with chronic and life-threatening conditions may further intensify the emotional burden experienced by nursing staff (Omollo, 2023).

Workforce demands may also influence nurses' ability to manage the emotional consequences of vicarious trauma. The Nursing Council of Kenya (2024) provides staffing guidance intended to support safe and quality nursing care, including recommended nurse-to-patient ratios for different clinical settings. Where staffing levels and patient demands make it difficult for nurses to obtain adequate rest, debriefing, and psychosocial support, the effects of repeated exposure to traumatic experiences may become more difficult to manage. However, the actual staffing levels, nurse-to-patient ratios, and availability of support services at AGC Tenwek Hospital require empirical verification rather than assumption. Examining nurses' emotional experiences within this institutional context is therefore necessary to distinguish the effects associated with exposure to patients' trauma from other occupational pressures that may also affect service delivery.

Despite increasing international attention to vicarious trauma, there remains a need for context-specific evidence on its emotional effects among nurses working in rural Kenyan referral hospitals. In particular, limited evidence has been presented on how emotional responses associated with vicarious trauma influence the healthcare services delivered by nurses at AGC Tenwek Hospital. Emotional distress may affect the quality of nurse–patient interactions, communication, compassion, attentiveness, and perceived responsiveness to patients' needs. However, the nature and extent of these effects within the hospital cannot be established solely from findings reported in other settings. Investigating this relationship is therefore important for generating evidence that can inform staff support programmes, psychological well-being interventions, and strategies for sustaining quality nursing care.

Accordingly, this study examined the emotional effects of vicarious trauma on healthcare services delivered by nurses at AGC Tenwek Hospital in Bomet County, Kenya. By focusing on nurses' emotional experiences and their implications for service delivery, the study sought to generate context-specific evidence to inform hospital management, nursing administrators, and healthcare policymakers on approaches to safeguarding nurses' psychological well-being while promoting compassionate, safe, and patient-centred care.

LITERATURE REVIEW

Theoretical Review

Constructivist Self-Development Theory (CSDT) was developed by McCann and Pearlman (1990) to explain the psychological effects of exposure to traumatic experiences, particularly among professionals who work with trauma survivors. The theory emerged from work on vicarious traumatization and proposes that repeated exposure to others' traumatic experiences can alter an individual's cognitive schemas, emotional functioning, sense of identity, and perceptions of self and others. Its key tenets include changes in frame of reference, self-capacities, ego resources, cognitive schemas, and memory and perception (Pearlman & Saakvitne, 1995). These dimensions explain how trauma-related exposure may challenge beliefs concerning safety, trust, esteem, intimacy, power, and independence. In the context of Emotional Effects of Vicarious Trauma on Healthcare Services Delivered by Nurses at AGC Tenwek Hospital in Bomet County, Kenya, CSDT provides a theoretical basis for explaining how repeated encounters with patients' suffering, severe injuries, critical illnesses, and death may contribute to anxiety, sadness, emotional exhaustion, helplessness, and changes in emotional regulation among nurses.

The theory postulates that individuals interpret traumatic experiences through existing psychological structures, which may be disrupted or transformed by repeated exposure to distressing events. Among nurses, these changes may influence emotional availability, clinical empathy, communication, and relationships with patients and their families. Dong et al. (2025) highlight the potential implications of repeated exposure to others' traumatic experiences for cognitive models, emotional regulation, and clinical empathy. Similarly, research on vicarious trauma among healthcare professionals has highlighted its potential psychological and occupational consequences (Owen, 2024; Toporek, 2022; Chermont, 2025; De Lyra, 2024; Nuttman-Shwartz, 2023; Hlomuka, 2024; Van Niekerk, 2024; Uwamahoro, 2024; Tarigo & Ndanu, 2022; Mwaura, 2022). In Kenya, Tarigo and Ndanu (2022) reported varying levels of vicarious trauma among healthcare workers, while Mwaura (2022)

discussed trauma-related symptoms and their implications for professional practice. These findings support the relevance of investigating nurses' emotional experiences and their relationship with healthcare service delivery at AGC Tenwek Hospital. However, CSDT has limitations because it primarily explains psychological changes associated with traumatic exposure and does not independently account for all organisational, cultural, and individual factors that may influence nurses' responses. Furthermore, emotional distress does not automatically imply reduced care quality; this relationship requires empirical investigation.

Despite these limitations, CSDT is appropriate for the present study because it establishes a conceptual connection between the emotional effects of vicarious trauma and nurses' professional functioning. The theory suggests that emotional exhaustion, anxiety, helplessness, and diminished empathy may affect how nurses communicate with patients, respond to clinical needs, and maintain compassionate relationships. These concerns are particularly relevant in a referral hospital such as AGC Tenwek Hospital, where nurses may repeatedly encounter severe and distressing clinical cases (Tenwek Hospital, n.d.). Kennedy and Booth (2022) further distinguish trauma-related distress from burnout associated with prolonged occupational stress, highlighting the importance of examining the specific emotional consequences of traumatic exposure. Accordingly, CSDT guides this study in examining the emotional effects of vicarious trauma and how these effects relate to healthcare services delivered by nurses. Its application will help establish whether the emotional experiences reported by nurses are associated with changes in empathy, communication, attentiveness, and responsiveness, thereby generating evidence to inform staff support interventions and promote safe, compassionate, and patient-centred care.

Empirical Review

Nurses are affected by the same kind of emotional residue and stress following exposure to another's traumatic experience as others who are directly exposed. Although there are studies in Europe, the USA, Australia, Asia and other parts of the world, which have highlighted the effects of vicarious trauma on the nurses in the above-mentioned locations and the ways in which they cope with it in the intensive clinical environments and shifts in which they work and interact with patients and their families, there is a marked paucity of such studies from southern Africa.

Findings from UK-based studies have described how secondary traumatic stress can impact upon the behaviors of nurses affected by it and this is demonstrated in their detached behavior towards patients and their colleagues and mixed emotions which they experience in their workplace especially in acute care environments (Elliot, 2024). Ford (2023) found that secondary traumatic stress contributed to a state of detachment and suffering in many nurses. Instead of trying to avoid feelings of trauma that they have encountered with patients, a strategy of dealing with the negative effects of secondary traumatic stress and absences from work due to stress and fatigue would be better, by promoting emotional resilience and enhancing the sense of professionalism and job satisfaction among nurses, by delivering trauma-informed care.

Studies internationally have found similar results. Vicarious Trauma (VT) affects nurses' perceptions, relationships and work environment which can affect attendance and job satisfaction thus having a negative impact on patient care (Perron et al., 2023). Cai, et al. (2025) studied nurses from across China who had experienced vicarious posttraumatic growth (VPTG) of low-to-moderate levels, and found that 70% of 225 participants were in this category. Empathy and social support acted as buffers for the group in the study.

Among health care professionals, Shanthi et al. (2024) reported that mental health nurses experience heavier burden of emotional labor and experience higher levels of burnout than psychologists and social workers. Research from Australia comparing nurses with other health care workers found that while both groups of workers experience stress and deal with traumatic situations of their clients, there are significant differences. They found that health care workers, whether male or female, of any age, with any amount of experience, of any background, experience emotional tiredness and decreased ability to provide the best patient care and to maintain deep empathy for others while experiencing symptoms of emotional exhaustion, compassion fatigue and decreased resilience.

Vicarious Trauma (VT) is gaining recognition in the southern African context as an emerging mental health issue affecting the health care worker. These are stressed health care workers practicing in under-resourced

clinical health care environments. A study conducted in Limpopo, South Africa found that a third of Emergency Medical Services (EMS) personnel studied reported high levels of VT. In addition, some of the health care workers experienced secondary traumatic stress with concomitant effects of burnout and decreased health care worker resilience. The issues affecting EMS staff in particular, and the lack of awareness and access to interventions to deal with the after effects of VT were discussed by Morudu (2025).

However, nurses who experience high VT are in minority in the profession. In a cross-sectional study conducted at the intensive care unit and the oncology unit at the Kenyatta National Hospital, Kenya, results revealed that 10% of the 46 participants had high levels of VT. 59.2% of the participants in the study were reported to be coping with VT through work-related coping.

A separate study conducted at the same facility by Tarigo and Ndanu (2022) reported moderate levels of vicarious trauma amongst medical staff at KNH with 10% of the participants describing themselves as having high levels of the phenomenon while 49.2% were described as being in the moderate category of emotional detachment. The same study went on to note that there were certain clinical areas where nurses were more exposed to VT than others including the Intensive Care Unit (ICU) and the Oncology Unit. This was because of the nature of suffering and death that occurred in these clinical areas and which nurses were constantly exposed to. This study found out that nurses who were treating chronic illnesses at The Nairobi Hospital were experiencing much stress in their work and also were being affected by their work-life balance. The study also established that religiosity could protect a nurse against Vicarious Trauma and that the adaptive coping style could also protect a nurse from this effect of trauma. Nursing care of patients with chronic illnesses at The Nairobi Hospital was investigated by Omollo (2023) in a study aimed at determining the levels of vicarious trauma among the nurses and the effect that it had on their quality of life. Although prevalence of vicarious trauma in this study was 6%, manifestation of VT symptoms in the affected nurses had considerable impact on their lives. The study found that work life balance and peer support at workplace were crucial in managing symptoms of nurses with VT. Sadly, there were no formal institutional psychosocial interventions in place for health care workers who developed VT. The study therefore was conducted to determine the extent of emotional effects of vicarious trauma on the nursing staff in a rural health care facility such as AGC Tenwek Hospital where the study was conducted. Although studies are underway to explore the effects of vicarious trauma on the emotional wellbeing of nurses in health care settings across the globe, considerable paucity of studies still pertains, specifically to understand the same among his/her counterparts in the rural health care settings of Kenya.

Most of the published studies to date have been conducted within large urban health care settings such as Nairobi, and in particular, within two of Kenya's premier teaching and referral hospitals, namely Kenyatta National Hospital (KNH) and The Nairobi Hospital. Health care settings are characterized by a variety of factors, including work load, staff, and most importantly, support structures within which health care providers can deal with the psychosocial aspects of their work. Rural nurses work in settings that lack resources and have fluctuating workloads. Much of their work is with patients suffering from life threatening illnesses in very poor circumstances, and they encounter many dire situations time and again. As a consequence, they are under stress and therefore are more susceptible to emotional exhaustion, detachment, burnout and decreased emotional resilience and compassion fatigue. Health care providers in settings like emergency department, critical care units, maternity units, cancer units and surgical units etc. suffer greatly. There is dearth of empirical studies that describe the emotional effects of vicarious trauma on such health care providers working in these specific environments. This is the context in which the current study was conducted at AGC Tenwek Hospital in Bomet County, Kenya a rural faith-based Level 5 health care facility. The findings from the study on the emotional effects of vicarious trauma among nurses in a rural, faith-based Level 5 health care facility of AGC Tenwek Hospital in Bomet County, Kenya will create a basis for understanding the emotional experiences of nurses in such settings. The findings can be used in designing support measures and interventions that can foster the emotional wellbeing of the nursing staff in such settings.

Summary of Literature Review and Research Gaps

The reviewed literature indicates that nurses who are repeatedly exposed to patients' suffering, traumatic injuries, and death may experience emotional exhaustion, anxiety, sadness, fear, helplessness, emotional detachment, compassion fatigue, and secondary traumatic stress. These emotional and psychological effects may compromise

nurses' well-being and potentially affect clinical decision-making, communication, empathy, therapeutic relationships, responsiveness to patients' needs, continuity of care, and overall healthcare service delivery. Existing studies have identified various coping strategies, including social support from family and colleagues, mindfulness, stress management, resilience-building practices, faith-based support, and workplace mental health services. However, much of the available evidence focuses on individual coping mechanisms, with comparatively limited attention to how personal coping resources interact with organisational support and working conditions to influence nurses' emotional well-being and professional functioning.

Despite growing international recognition of vicarious trauma among healthcare professionals, significant geographical, contextual, and empirical gaps remain. Much of the existing research originates from developed countries or specialised clinical settings, while evidence concerning nurses working across departments in rural referral hospitals in Kenya remains limited. In particular, insufficient empirical evidence establishes how vicarious trauma affects the emotional well-being and healthcare services delivered by nurses in rural, faith-based referral hospitals, including AGC Tenwek Hospital in Bomet County. The interaction between repeated exposure to patients' trauma, workload demands, staffing and resource constraints, and available organisational support also requires further investigation. Therefore, this study examined the emotional effects of vicarious trauma on healthcare services delivered by nurses at AGC Tenwek Hospital, with the aim of generating context-specific evidence to inform psychological support programmes, organisational interventions, and strategies for sustaining safe, compassionate, and quality patient care in rural Kenyan healthcare settings.

RESEARCH METHODOLOGY

The study adopted a mixed-methods approach, combining quantitative and qualitative data to examine the emotional effects of vicarious trauma on healthcare service delivery among nurses at AGC Tenwek Hospital in Bomet County, Kenya (Takona, 2024). The target population comprised 307 registered nurses actively involved in patient care as of May 2026, from whom a sample of 174 nurses was required (Umar & Wachiko, 2021). Data were collected using structured questionnaires and semi-structured interviews. The questionnaires assessed symptoms of vicarious trauma, coping strategies and perceived effects on nursing service delivery, while interviews explored participants' experiences and perspectives in greater depth.

The research instruments were piloted among 20 nurses at A.I.C. Litein Hospital, a facility considered comparable to the study setting. Content validity was assessed through reviews by academic supervisors and experienced nursing professionals, alongside feedback from the pilot study to identify ambiguous items and improve clarity (Izah et al., 2023). Reliability was assessed using test–retest procedures over a 14-day interval and internal consistency analysis. Cronbach's alpha was calculated using SPSS version 28, yielding an overall reliability coefficient of 0.792, which exceeded the recommended threshold of 0.70 (Katile, 2022). Quantitative data were analysed using SPSS version 28, with descriptive statistics, including frequencies, percentages and means, used to summarise the findings. Qualitative interview data were analysed thematically to identify recurring patterns and themes.

Ethical approval was obtained from the Kenya Highlands University Ethics Review Committee, while research permissions were secured from AGC Tenwek Hospital and A.I.C. Litein Hospital. Participation was voluntary, and informed consent was obtained after participants received information about the study's objectives, procedures, potential risks and benefits. Participants were informed of their right to withdraw at any stage without adverse consequences. Confidentiality and privacy were maintained through coded participant identities, secure storage of hard-copy questionnaires in locked cabinets and protection of electronic data using password-protected files. Data were retained for the stipulated period and subsequently destroyed in accordance with applicable research requirements.

RESULTS AND DISCUSSION

The study objective was to examine vicarious trauma's emotional effects on the nurses from AGC Tenwek Hospital. Instead of reviewing psychological effects through intrusive thoughts, concentration problems and burnout in the previous section, this section reviewed nurses' emotional effects caused by repeated exposure to patients' suffering and traumas in their clinical work. Nurses rated the extent of sadness, emotional exhaustion,

anxiety, irritability, guilt and numbness on a five-point Likert scale. Higher means indicated greater emotional effects.

Table 1: Emotional Impact of Vicarious Trauma (N = 174)

Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	Std. Dev.
I feel persistent sadness after handling traumatic cases.	15 (8.6)	33 (19.0)	50 (28.7)	54 (31.0)	22 (12.6)	3.201	1.148
I experience emotional exhaustion from repeated exposure to trauma.	14 (8.0)	27 (15.5)	28 (16.1)	71 (40.8)	34 (19.5)	3.483	1.201
I often feel anxious when dealing with patients' traumatic experience.	18 (10.3)	34 (19.5)	36 (20.7)	63 (36.2)	23 (13.2)	3.224	1.208
I become irritable or angry after emotionally intense shifts.	24 (13.8)	45 (25.9)	35 (20.1)	47 (27.0)	23 (13.2)	3.000	1.272
I feel guilty for not being able to do enough for patients.	16 (9.2)	18 (10.3)	21 (12.1)	55 (31.6)	64 (36.8)	3.764	1.298
I sometimes lose empathy or feel emotionally numb toward patients.	48 (27.6)	39 (22.4)	35 (20.1)	39 (22.4)	13 (7.5)	2.598	1.303

Table 1 presents the emotional effects of vicarious trauma reported by nurses at AGC Tenwek Hospital. Feelings of guilt recorded the highest mean score (M=3.764, SD=1.298), followed by emotional exhaustion (M=3.483, SD=1.201). Anxiety, persistent sadness and irritability were also reported, although their mean scores were comparatively lower. Emotional numbness or loss of empathy recorded the lowest mean score (M=2.598, SD=1.303), suggesting that emotional withdrawal was less commonly endorsed than the other emotional experiences.

Guilt was the most prominent emotional effect. A total of 119 nurses (68.4%) agreed or strongly agreed with the statement, “I feel guilty for not being able to do enough for patients.” Specifically, 55 (31.6%) agreed, while 64 (36.8%) strongly agreed. This finding suggests that nurses may experience guilt when patients deteriorate or die despite the care provided. The qualitative findings reinforced this pattern, with participants describing feelings of anguish, blame and emotional pain when patients suffered or died despite their efforts to provide appropriate care. Some nurses reportedly continued reflecting on whether they could have done more, even after their working hours. These experiences indicate that the emotional burden of patient suffering may persist beyond the immediate clinical encounter.

Emotional exhaustion was the second most prominent effect. A total of 105 nurses (60.3%) agreed or strongly agreed that they experienced emotional exhaustion following repeated exposure to traumatic situations. The mean score was 3.483 (SD=1.201). Qualitative accounts similarly described feeling emotionally drained, mentally tired and overwhelmed by caring for patients with severe or life-threatening conditions. Some participants reported that particularly distressing clinical experiences continued to affect them outside work. These findings suggest that repeated exposure to patient suffering may contribute to sustained emotional strain, particularly when nurses have limited opportunities to recover between demanding shifts.

Anxiety was also evident among the participants. A total of 86 nurses (49.4%) agreed or strongly agreed that they often felt anxious when dealing with patients’ traumatic experiences, while 36 (20.7%) were neutral. The mean score was 3.224 (SD=1.208). Qualitative accounts described fear, apprehension and emotional unease

associated with uncertainty about patients' conditions and outcomes. Participants indicated that caring for critically ill patients could be emotionally demanding, particularly when deterioration or death remained possible despite appropriate care. These findings suggest that uncertainty surrounding patient outcomes may be an important source of emotional distress for nurses.

Persistent sadness was reported by 76 nurses (43.6%), comprising 54 (31.0%) who agreed and 22 (12.6%) who strongly agreed with the statement. A further 50 nurses (28.7%) were neutral, while 48 (27.6%) disagreed or strongly disagreed. The mean score was 3.201 (SD=1.148). The qualitative findings indicated that repeated encounters with patients' pain, prolonged suffering and death could evoke sadness that extended beyond the workplace. However, the responses also show variation in how nurses experienced and managed this emotion.

Irritability or anger following emotionally intense shifts received a mean score of 3.000 (SD=1.272). Seventy nurses (40.2%) agreed or strongly agreed with the statement, while 69 (39.7%) disagreed or strongly disagreed and 35 (20.1%) were neutral. These findings indicate that irritability was experienced by a substantial proportion of the nurses, although responses were mixed. Participants' accounts suggested that professional experience, collegial support and spiritual practices helped some nurses manage their emotional responses to demanding clinical situations. Nevertheless, the descriptive findings alone cannot establish whether these factors directly reduced irritability.

In contrast, emotional numbness or loss of empathy was less frequently endorsed. Fifty-two nurses (29.9%) agreed or strongly agreed that they sometimes lost empathy or felt emotionally numb towards patients, whereas 87 (50.0%) disagreed or strongly disagreed and 35 (20.1%) were neutral. This item recorded the lowest mean score (M=2.598, SD=1.303). The results suggest that, despite experiencing guilt, exhaustion, anxiety and sadness, many nurses continued to report emotional connection with their patients. Qualitative accounts also indicated that some nurses relied on professional experience, personal resilience, faith and support from colleagues to maintain compassionate care. However, the findings do not imply that these coping resources were equally effective for all participants.

Overall, guilt and emotional exhaustion emerged as the most prominent emotional effects of vicarious trauma among nurses at AGC Tenwek Hospital, while emotional numbness and loss of empathy were less frequently reported. The qualitative findings helped contextualise these patterns by illustrating how nurses experienced and managed the emotional consequences of patient suffering and death. These results underscore the importance of institutional measures that support nurses' emotional wellbeing, including confidential counselling, peer support, structured opportunities to reflect on distressing clinical experiences and access to professional psychological services. Such measures may help nurses manage emotional distress while sustaining compassionate healthcare delivery.

Health Service Delivery

The fourth objective of the study sought to establish the impact that vicarious trauma has on health care service delivery. By using a five-point Likert scale to measure how much vicarious trauma affected various roles of the nurses in patient care and work, such as concentration to patient care, provision of compassionate care, clinical decision making, teamwork and job satisfaction, the higher score indicated adverse impact on health care service delivery. The findings figure in Table 2.

Table 2: Impact of Vicarious Trauma on Service Delivery (N = 174)

Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	Std. Dev.
My concentration difficulties affect the accuracy of patient care.	41 (23.6)	34 (19.5)	36 (20.7)	41 (23.6)	22 (12.6)	2.822	1.363
Emotional exhaustion reduces my ability to provide compassionate care.	21 (12.1)	40 (23.0)	23 (13.2)	61 (35.1)	29 (16.7)	3.213	1.302

Anxiety interferes with my decision making during patient care.	26 (14.9)	44 (25.3)	31 (17.8)	50 (28.7)	23 (13.2)	3.000	1.295
Burnout negatively impacts my teamwork and collaboration with colleagues.	15 (8.6)	31 (17.8)	23 (13.2)	61 (35.1)	44 (25.3)	3.506	1.280
Emotional detachment reduces my empathy toward patients.	21 (12.1)	44 (25.3)	31 (17.8)	58 (33.3)	20 (11.5)	3.069	1.238
Vicarious trauma decreases my overall job satisfaction and motivation.	20 (11.5)	31 (17.8)	29 (16.7)	66 (37.9)	28 (16.1)	3.293	1.259

The findings presented in Table 2 indicate that vicarious trauma affected various aspects of healthcare service delivery among nurses at AGC Tenwek Hospital. The six indicators examined were concentration and accuracy of patient care, emotional exhaustion and compassionate care, anxiety and clinical decision-making, burnout and teamwork, emotional detachment and empathy, and job satisfaction and motivation. The mean scores ranged from 2.822 to 3.506, suggesting that the perceived impact of vicarious trauma varied across the different dimensions of healthcare service delivery.

Burnout and teamwork and collaboration with colleagues recorded the highest mean score (M = 3.506, SD = 1.280). A total of 61 participants (35.1%) agreed that burnout negatively affected their teamwork and collaboration, while 44 (25.3%) strongly agreed. Overall, 105 participants (60.4%) agreed or strongly agreed with the statement. These findings suggest that burnout associated with repeated exposure to traumatic situations may interfere with nurses' ability to communicate effectively, maintain patience, and collaborate with colleagues. The qualitative findings further indicated that although some nurses received support from colleagues following emotionally demanding clinical experiences, others experienced emotional exhaustion after prolonged periods of overwork and caring for critically ill patients. Such experiences sometimes affected their ability to interact effectively with colleagues, maintain a collaborative team spirit, and function optimally within healthcare teams.

Job satisfaction and motivation recorded the second-highest mean score (M = 3.293, SD = 1.259). A total of 66 participants (37.9%) agreed that vicarious trauma reduced their overall job satisfaction and motivation, while 28 (16.1%) strongly agreed. Thus, 94 participants (54.0%) expressed agreement with the statement. These findings suggest that repeated exposure to traumatic clinical situations may undermine nurses' motivation and satisfaction with their work. The qualitative findings revealed differences in how nurses responded to these experiences. Some participants reported that the suffering and deaths of patients continued to affect them emotionally, leading some to question their professional choices over extended periods. Others explained that encouragement from colleagues, confidence in their professional abilities, and support within the workplace helped them maintain their motivation and job satisfaction. These findings highlight the importance of individual resilience, effective coping strategies, and workplace support in managing the emotional demands of nursing practice.

Emotional exhaustion and the provision of compassionate care recorded a mean score of 3.213 (SD = 1.302). A total of 61 participants (35.1%) agreed that emotional exhaustion reduced their ability to provide compassionate care, while 29 (16.7%) strongly agreed. In total, 90 participants (51.8%) agreed or strongly agreed with the statement. However, 61 participants (35.1%) disagreed or strongly disagreed, while 23 (13.2%) were neutral. These results indicate that nurses differed in their perceptions of how emotional exhaustion affected their ability to provide compassionate care. The qualitative findings showed that some nurses felt emotionally drained and occasionally struggled to interact with patients in the manner they considered appropriate. Nevertheless, others reported that they could manage their emotional responses and continue fulfilling their professional responsibilities. This suggests that although emotional exhaustion may pose challenges to compassionate care, its perceived effects vary among nurses.

Emotional detachment and empathy towards patients recorded a mean score of 3.069 (SD = 1.238). A total of 58 participants (33.3%) agreed that emotional detachment reduced their empathy towards patients, while 20 (11.5%) strongly agreed. Conversely, 44 participants (25.3%) disagreed, while 21 (12.1%) strongly disagreed.

The remaining 31 participants (17.8%) were neutral. These findings demonstrate varied perceptions of the relationship between emotional detachment and empathy in patient care. Qualitative accounts indicated that some nurses deliberately regulated their emotional involvement with terminally ill patients as a coping mechanism to manage distress associated with repeated exposure to suffering. However, other participants expressed concern that excessive emotional distancing could negatively affect their relationships with patients and limit the provision of holistic care. Emotional detachment may therefore serve as a coping response for some nurses while presenting a potential challenge to empathetic patient care for others.

Anxiety and clinical decision-making recorded a mean score of 3.000 (SD = 1.295). A total of 50 participants (28.7%) agreed that anxiety interfered with their decision-making during patient care, while 23 (13.2%) strongly agreed. Overall, 73 participants (41.9%) agreed or strongly agreed with the statement. In contrast, 70 participants (40.2%) disagreed or strongly disagreed, while 31 (17.8%) were neutral. These findings indicate mixed perceptions regarding the influence of anxiety on clinical decision-making. The qualitative findings suggested that some nurses relied on their professional experience, established institutional protocols, and assistance from colleagues to make decisions during emotionally demanding situations. Such strategies appeared to help them manage anxiety while continuing to undertake their clinical responsibilities. Nevertheless, the findings suggest that anxiety remains a concern for a proportion of nurses and may affect their confidence in making clinical decisions.

Concentration difficulties affecting the accuracy of patient care recorded the lowest mean score (M = 2.822, SD = 1.363). A total of 41 participants (23.6%) agreed that concentration difficulties affected the accuracy of their patient care, while 22 (12.6%) strongly agreed. In total, 63 participants (36.2%) agreed or strongly agreed with the statement. Conversely, 34 participants (19.5%) disagreed and 41 (23.6%) strongly disagreed, while 36 (20.7%) were neutral. These findings suggest that concentration difficulties were perceived as a less prominent challenge to patient-care accuracy than the other indicators examined. However, the standard deviation of 1.363 indicates considerable variation in participants' responses. The qualitative findings revealed that some nurses occasionally struggled to concentrate but believed they could continue providing safe care by adhering to professional standards and separating their emotional experiences from their clinical responsibilities. These accounts suggest that some nurses perceived themselves as capable of maintaining the accuracy of their work despite emotional strain. However, the relatively low mean score does not establish that vicarious trauma had no effect on patient-care accuracy.

Overall, the findings suggest that vicarious trauma was perceived to affect several dimensions of healthcare service delivery, although the extent of the reported impact varied. The highest mean score was recorded for teamwork and collaboration (M = 3.506), followed by job satisfaction and motivation (M = 3.293), emotional exhaustion affecting compassionate care (M = 3.213), emotional detachment affecting empathy (M = 3.069), anxiety affecting clinical decision-making (M = 3.000), and concentration difficulties affecting patient-care accuracy (M = 2.822). This pattern suggests that the perceived effects were more pronounced in interpersonal and motivational aspects of healthcare delivery than in the reported accuracy of clinical care. Nevertheless, the results should be interpreted cautiously because the mean scores reflect participants' self-reported perceptions rather than direct assessments of clinical performance or patient outcomes.

The qualitative findings further demonstrate that nurses' experiences varied according to their coping strategies, professional confidence, resilience, and access to support from colleagues. Although some participants reported that they could maintain professional standards despite emotional exhaustion, others described difficulties with teamwork, motivation, empathy, and clinical decision-making. These findings highlight the importance of institutional strategies to protect nurses' psychological well-being and support effective healthcare delivery. Appropriate measures may include confidential counselling services, peer-support programmes, supportive clinical supervision, stress-management training, and effective workload management. Such interventions may help nurses manage the emotional demands associated with repeated exposure to traumatic situations and sustain teamwork, motivation, and compassionate patient care.

Correlation Analysis

Pearson's product-moment correlation was used to examine the relationship between the emotional effects of

vicarious trauma and healthcare service delivery among the 174 participating nurses. The results are presented in Table 3.

Table 3: Emotional Effects of Vicarious Trauma and Healthcare Service Delivery (N = 174)

Variables	onal effects of vicarious trauma	Healthcare service delivery
Emotional effects of vicarious trauma		−0.546
Healthcare service delivery	−0.546	

Source: Study data (2026).

The results indicated a negative relationship between the emotional effects of vicarious trauma and healthcare service delivery (r=-0.546). This suggests that greater emotional distress among nurses was associated with poorer perceived healthcare service delivery. The correlation coefficient indicates a moderate-to-strong negative relationship. However, the statistical significance of this correlation cannot be independently confirmed from the reported table because the exact p-value is not provided.

Regression Analysis

Multiple linear regression was used to establish whether the emotional effects of vicarious trauma were associated with healthcare service delivery after accounting for frequency of exposure to vicarious trauma, psychological effects and coping mechanisms and support systems. The relevant regression coefficient is presented in Table 4.

Table 4: Regression Results for the Emotional Effects of Vicarious Trauma

Predictor		Std. Error	Standardised β		-value
Emotional effects of vicarious trauma	0.234		−0.203	−2.609	

Dependent variable: Healthcare service delivery. Source: Study data (2026).

The regression results showed that the emotional effects of vicarious trauma had a negative and statistically significant association with healthcare service delivery (B=-0.234, β=-0.203, t=-2.609, p=0.010<0.05). Since the p-value was below the 0.05 significance level, the null hypothesis that emotional effects of vicarious trauma have no statistically significant association with healthcare service delivery was rejected. The negative unstandardised coefficient indicates that, holding the other variables in the model constant, a one-unit increase in the emotional-effects score was associated with a 0.234-unit decrease in the healthcare service delivery score, assuming higher scores represent greater emotional effects and better service delivery, respectively. The standardised coefficient (β=-0.203) further indicates a negative association between the two variables after accounting for the other predictors in the model.

DISCUSSION

The findings demonstrate that the emotional effects of vicarious trauma are negatively associated with healthcare service delivery among nurses at AGC Tenwek Hospital. The correlation coefficient (r=-0.546) indicates that nurses reporting greater emotional distress tended to report poorer service delivery. The regression analysis further established that this negative association remained statistically significant after accounting for frequency of exposure to traumatic cases, psychological effects and coping mechanisms and support systems. These findings suggest that emotional wellbeing is an important consideration in understanding nurses' perceived capacity to provide effective healthcare services.

The finding can be understood in relation to the emotional challenges nurses experience when repeatedly exposed to patients' suffering, traumatic injuries, distressing clinical situations and death. Such exposure may be accompanied by anxiety, sadness, guilt, helplessness and emotional exhaustion. The study also identified experiences including preoccupation with patients' traumatic circumstances, detachment from patients, irritability, hopelessness and emotional numbness. These experiences may make it more difficult for nurses to sustain emotional engagement, communicate effectively and maintain supportive therapeutic relationships with patients. Nevertheless, the present findings establish an association rather than demonstrating that emotional distress directly causes poorer service delivery.

The findings are consistent with Omollo (2023), who reported that emotional stress and poor work–life balance affect the standard of care nurses provide. Similarly, Smith (2021) associated vicarious trauma among healthcare workers with burnout, intrusive thoughts, anxiety and compassion fatigue. Ford (2023) also highlighted potential implications of secondary traumatic stress for concentration, clinical judgement and decision-making. Research by Caulfield, McBride and Lombardo (2023), Tarigo and Ndanu (2022), and Uwamahoro (2024) provides further context for understanding the mental and emotional challenges experienced by healthcare professionals. These studies collectively support the relevance of addressing emotional distress among nurses, although their findings do not independently establish the magnitude of the association at AGC Tenwek Hospital.

The findings also highlight the importance of institutional support for nurses exposed to traumatic clinical experiences. Piras et al. (2024) observed that adaptive emotional-regulation strategies may help healthcare workers maintain professional functioning and reduce stress-related absenteeism. In the context of AGC Tenwek Hospital, access to psychological counselling, peer-support groups, clinical supervision, trauma-informed training and structured employee mental-health services may help nurses manage the emotional demands of their work. Such interventions should be considered practical recommendations rather than interventions whose effectiveness was directly tested by this study.

Overall, the findings indicate that greater emotional effects of vicarious trauma are associated with poorer perceived healthcare service delivery among nurses at AGC Tenwek Hospital. The statistically significant regression coefficient supports the conclusion that emotional effects remain an important correlate of service delivery when the other specified predictors are taken into account. Strengthening institutional mechanisms for recognising and supporting nurses experiencing emotional distress may therefore be an important component of efforts to promote staff wellbeing and quality patient care.

CONCLUSIONS AND RECOMMENDATIONS

Summary

The findings indicate that the emotional effects of vicarious trauma among nurses at AGC Tenwek Hospital included sadness, guilt, anxiety, discouragement, helplessness and mental fatigue. Guilt was particularly evident when patients deteriorated despite receiving appropriate care. However, some nurses reported being able to manage the emotional demands associated with patients' suffering and death while maintaining compassionate care. Their ability to cope was attributed to professional experience, personal resilience, faith and support from colleagues.

The findings suggest that the emotional effects of vicarious trauma influence how nurses respond to patients' suffering, clinical deterioration and death. While psychological effects may affect cognitive functioning and decision-making, emotional distress may influence nurses' emotional availability, motivation and engagement with patients. Repeated exposure to traumatic clinical situations, coupled with limited opportunities for recovery, may intensify emotional exhaustion and helplessness, potentially compromising the consistency and compassion of care over time.

Regression analysis further established a negative and statistically significant association between the emotional effects of vicarious trauma and healthcare service delivery (β=-0.203, B=-0.234, $p=0.010<0.05$). This finding demonstrates that emotional effects remain an important correlate of service delivery, even after accounting for the other predictors included in the regression model. Although nurses may continue performing their duties

while experiencing emotional distress, persistent distress may undermine their motivation, workplace relationships and capacity to provide compassionate care. Emotional wellbeing should therefore be recognised as an important consideration in supporting nurses' professional functioning and the quality of healthcare services.

Conclusion

The study concludes that nurses at AGC Tenwek Hospital experience emotional distress associated with exposure to patients' traumatic experiences, suffering and death. The emotional effects identified included sadness, guilt, anxiety, discouragement, helplessness and mental fatigue. These experiences were associated with healthcare service delivery, with regression analysis demonstrating a negative and statistically significant relationship between emotional effects and service delivery. The findings highlight the importance of considering nurses' emotional wellbeing alongside their clinical responsibilities when seeking to maintain effective and compassionate patient care.

The study also indicates that nurses' ability to manage the emotional demands of traumatic clinical situations may be supported by professional experience, personal resilience, faith and collegial support. These resources may help nurses maintain their professional functioning despite repeated exposure to distressing situations. However, individual coping resources should complement, rather than replace, institutional responsibility for staff welfare. Providing appropriate psychological support, adequate recovery opportunities and a supportive working environment may help nurses manage emotional distress and sustain their capacity to deliver quality healthcare services.

Recommendations

Based on the findings, the study makes several key recommendations for institutional management and future academic research.

First, AGC Tenwek Hospital management should systematically review practices for managing repeated exposure to traumatic clinical situations, particularly in high-volume units such as the Intensive Care Unit, Casualty/Accident and Emergency, and Paediatric Wards, where nurses frequently encounter severe illness, injury, deterioration, or death. In line with this, the Human Resources Department, in collaboration with nursing management, should assess staffing levels, workload distribution, and staff deployment across these high-exposure units. Where operationally feasible, appropriate staff rotation, task-sharing models, and workload adjustments should be implemented to reduce cumulative emotional strain while maintaining continuity and high quality of patient care.

Second, the hospital should provide accessible, trauma-informed, and confidential counselling, psychological assessment, and referral services for nurses experiencing emotional distress, persistent anxiety, emotional exhaustion, intrusive thoughts, or compassion fatigue. These clinical mental health services should be integrated into existing occupational health and staff welfare programs, ensuring that any screening or assessment is conducted strictly by qualified personnel to facilitate support rather than stigmatise staff. Concurrently, hospital leadership should introduce or strengthen wellness programs focused on stress management, emotional regulation, resilience building, and mental health awareness. Establishing peer-support groups and structured debriefing opportunities, such as post-incident debriefs or Schwartz Center Rounds, can provide nurses with safe, structured spaces to process difficult clinical experiences. Hospital leadership and nurse managers must actively foster an organizational culture in which seeking psychological assistance is recognized as responsible professional self-care rather than a sign of weakness, encouraging early help-seeking and respectful peer support while rigorously protecting confidentiality.

To successfully operationalize these clinical support programs without increasing administrative burdens on nursing staff, a phased implementation framework is recommended. Initially, routine mental health screening should be integrated into mandatory annual occupational health check-ups using brief, validated self-assessment tools, avoiding separate logbooks or tracking requirements for ward managers. Next, brief five-to-ten-minute unit-level micro-debriefs led by designated peer champions using simple standardized checklists should be

introduced following critical incidents, eliminating the need for lengthy written reports. Finally, direct-access, confidential self-referral pathways—such as dedicated helplines or digital booking systems—should be established to allow nurses to schedule psychological support directly, circumventing administrative approval steps and preserving supervisor privacy.

Lastly, to advance academic understanding and address existing research limitations, future studies should adopt longitudinal prospective cohort designs to observe how cumulative exposure to traumatic clinical cases impacts nurses' psychological wellbeing, burnout trajectories, and service delivery over extended periods. Future research should also supplement self-reported questionnaires with objective hospital performance indicators, such as patient safety incident reports, peer evaluations, absenteeism rates, or patient satisfaction scores, to provide a more holistic evaluation of clinical impact. Finally, comparative multi-site studies across both public (government-managed) and faith-based rural hospitals should be conducted to determine how variations in institutional support structures, administrative frameworks, and organizational cultures modify the severity and prevalence of vicarious trauma among health workers.

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