Severity of Vicarious Trauma Amongst Medical Workers: A Case of Kenyatta National Hospital, Nairobi, Kenya

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Abstract

The purpose of this paper was to investigate the severity of vicarious trauma among medical workers. A total of 130 (53.1% female and 46.9% male) health workers from Kenyatta National Teaching and Referral hospital in Nairobi Kenya participated in the study achieving a response rate of 76% from the 160 questionnaires that were administered. Systemic random sampling was used to select the participants. To determine the severity of vicarious trauma, Vicarious Trauma Scale (VTS) was used**.** The finding of the study showed that 10.0% of the medical workers had high levels of vicarious trauma, 49.2% had moderate levels of vicarious trauma and 40.8% had low levels of vicarious trauma. The overall mean severity level of vicarious trauma was 31.3 (SD = 8.65). This study recommends that periodical work-related training and workshops be carried out, especially in relation to the effects of vicarious trauma and compassion fatigue among medical workers.

Keywords: Vicarious trauma, severity, medical workers, posttraumatic disorder, compassion fatigue, burnout, compassion satisfaction

Introduction and Background

Vicarious trauma (VT) can destabilize healthcare workers thereby interfering with their optimal performance (Mairean et al., 2014). The intensity of VT can increase over time through repeated interaction with traumatized patients and can produce secondary traumatic stress symptoms such as intrusion symptoms in the workers. The effects of vicarious trauma cannot be overlooked, from psychological disturbances: fear, shame, anger and guilt, to even physical manifestations such as sleep disturbances, tachycardia as well as difficulties with concentration (Hartley et al., 2019). If not attended to, VT can not only lead to diminished job satisfaction but also reduced professional efficacy (Sui & Padmanabhanunni, 2016). Some of the cognitive changes that a frontline healthcare worker may experience include: questioning one's right to be alive or even happy, self-loathing, intrusive imagery as well as feelings of being unworthy of love (low self-esteem) among others (Quitangon et al., 2016). Apart from

changing how people view themselves, VT also changes the healthcare workers' professional identity, causing them to question their efficacy (a sense of lack of personal control). As earlier mentioned, the five main areas of cognition that vicarious trauma causes changes in are safety, trust, esteem, intimacy as well as control. For example, a healthcare worker who frequently treats victims of sexual violence tends to experience changes in the cognitive schema, especially regarding viewing other people as safe to be around, esteemed, or even trustworthy.

According to Helm (2010) the symptomatic distress associated with VT includes fear, anxiety as well as stress among others. Healthcare workers affected by VT may feel unworthy of love or that they are currently not loved. Apart from self-loathing, they may question their right to be happy or even alive. Because of their distrust for themselves and other people, they may come across as emotionally distant. They may also tend to be cynical regarding how they view the world. As a result of the vivid aversive images that they repeatedly come across in their line of duty, healthcare workers may experience intrusion symptoms such as flashbacks and nightmares from time to time. Avoidance of any stimuli that reminds them of the traumatic event may also occur among those affected by vicarious trauma, (Helm, 2010). Vicarious trauma affects an individual's sense of safety as can be seen in healthcare workers working with victims of sexual violence and even burn victims. This can also lead them to be suspicious and distrustful of other people's intentions, especially when working with sexual perpetrators (Barros et al., 2020). Furthermore, as a result of feeling unsafe around others, VT can cause the individual to withdraw socially from others including those they love, due to the distrust they experience. Traumatized healthcare workers may start to question their performance, and experience feelings of shame, guilt, and even fears of criticism from their colleagues and other people, regarding the event (Hartley et al., 2019). All these negative cognitions may affect their ability to make the right decisions or even to trust others. The inability to make the right decisions can lead to grave mistakes like medical errors.

Vicarious trauma changes one's core beliefs (cognitive schema) altering their perception of themselves and the world at large among other things (Wang, 2014). The caregiver's belief and faith in the benevolence and humanity of others is altered after repeated exposure to victims of trauma. For example, repeatedly working with victims of sexual violence could lead one to believe that the world is an unsafe place and that no one can be trusted. Hartley et al.,

(2019) conducted a systematic review of vicarious trauma among healthcare workers. Participants in the various studies reported that their professional encounters had changed their worldview and how they perceived human nature. They indicated being skeptical about the good in human beings and that their worldview became more occupied by subtle negative changes rather than positive ones when it came to fellow human beings. They even questioned the role of the education system through values and prejudices, questioning their credibility; how the education system could produce deviant male sexual behavior (Hartley et al., 2019) such as sexual assault and physical violence, among others. This shows the extent to which vicarious trauma can affect one's cognition in terms of how one perceives the world and other people.

In another study conducted on forensic psychiatrists, the participants reported that working with sex offenders caused them to be distrustful of strangers and more protective of their families (Barros et al., 2020). This distrust manifested in hyper-vigilance, especially in public settings; a common symptom seen in PTSD. On the other hand, spirituality which can be a protective factor in vicarious trauma tends to also be affected by these aversive exposures. This is manifested by hopelessness, whereby the individual fails to derive meaning from their work. They, therefore, end up internalizing the suffering of the patients they meet (Wang, 2014); internalizing distressing feelings contradicts the essence of spirituality which is normally one of the outlets of our fears, concerns, and frustration. This internalization can not only be detrimental to the health of healthcare workers, but also to their profession, as well as their interpersonal relationships.

Social withdrawal, feeling disconnected from loved ones, eruptions of anger, being intolerant, and even crying episodes are part of the behavioral changes that a healthcare worker may experience because of VT. Part of the social withdrawal could be due to the distrust that the individual develops toward others. Eruptions of anger could be explained by the internalization of emotions such as guilt or anxiety while crying episodes could be due to the hopelessness the individual might feel regarding the patients' suffering or loss of lives (Quitangon et al., 2016)**.**

Subsequently, VT can leave one feeling burned out and inadequate professionally (Barros et al., 2020)**.** Burnout is the state of physical, mental, and emotional exhaustion resulting from the stress of interpersonal contact and the gap between expectations and aspirations, on the one hand, and depleting workplace conditions on the other hand. In addition**,** long working hours

can lead to fatigue and have been seen to be one of the factors that might lead to burnout in healthcare workers. This takes place when there's extensive exposure to patients' traumatic events with little time for personal self-care, such as spending time with family and friends, exercising, or participating in activities that might help the individual to unwind, hence reducing fatigue due to work.

Medical staff must empathize with the patient's situation to build a practitioner-patient relationship; yet this empathy when constantly stretched by repeated exposure to traumatic events can be counter-effective, leading to compassion fatigue in the medical staff. Physicians and nurses are vulnerable to not only emotional but also moral trauma because of the delicate life-preserving/ sustaining nature of their work (Hartley et al., 2019). VT can manifest emotionally through symptoms such as feeling overwhelmed, anxious, experiencing despair, feeling emotionally numb and exhausted, resentful, and inability to experience pleasure (Helm, 2010). A study by Barros et al. (2020), which investigated vicarious trauma among forensic psychiatrists working with sex offenders, showed that the participants reported feelings of discouragement and hopelessness (change in belief), fatigue, sadness, discomfort, and powerlessness (loss of control). The study showed that vicarious trauma also manifests through symptoms such as disinterest, distance (lost sense of intimacy), and immobility among psychiatrists. However, some of the participants reported that working with victims of sexual abuse did not influence them professionally or in their personal lives. In addition, some of the participants reported no negative emotional or psychological effects. Possibly the presence of protective factors in their lives mitigated these negative effects.

Vicarious Trauma and Compassion Fatigue

Likened to empathy, compassion helps improve rapport between the healthcare workers and the patient. It is interesting to note that compassion also increases professional satisfaction among physicians, and also decreases burnout (Uziel et al., 2019). Uziel et al. reiterate that compassion fatigue (CF) is one of the effects of VT. CF manifests in feelings of suffering, sorrow, or sympathy to the point of exhaustion that is associated with a desire to alleviate the suffering of others. It reduces the healthcare provider's capacity or interest in bearing the suffering of others (Barros et al., 2020). It is important to note that, unlike VT which is a result of witnessing a patient's traumatic suffering over some time, compassion fatigue can occur from a single interaction with a patient (Helm, 2010). Some of the reasons for the

decrease in empathy among physicians include challenges at work such as long working hours and sleep deprivation. Besides, constant exposure to patients' pain, anxiety, and discomfort reduce their capacity for empathy, hence compassion fatigue. Clinical training may affect the compassion of some medical residents and the beginning of interaction with patients could be the start of a decline in the healthcare workers' compassion (Uziel et al., 2019). Perhaps as a way of instilling coping skills in the medical workers, one possibility is to encourage the medical workers not to be too emotionally invested in the patients' traumatic experiences.

Uziel et al., (2019) point out that prolonged empathetic engagement and exposure to the patient's chronic traumatic experiences could lead to compassion fatigue in the healthcare workers through vicarious traumatization. The emotional process between a worker and a patient is demonstrated by the caring cycle which is made up of three phases; empathic attachment, active involvement, and felt separation. Empathic attachment refers to the emotional connection between the medical workers and the patient. Usually, empathic attachment occurs during the patient's most vulnerable moments. This process can be most intense for the workers who deal with victims of trauma such as rape or other forms of gender abuse. The second phase known as the active phase takes place when the healthcare workers are actively involved in the treatment process of the patient. The duration of this active phase process does not determine the increase or decrease of VT, but it is important to note that a prolonged active involvement could pose a challenge in emotional separation (Helm, 2010). This means the longer one is emotionally engaged with a patient; the harder it becomes to disengage. Separation, which is the final phase, is key if medical workers are to continue experiencing vigor, passion, and satisfaction in their work. The benefit of effective separation is that it can prevent the professional from re-attaching to the patient, hence preventing compassion fatigue.

Importantly, to prevent compassion fatigue, each worker needs to assess his/her skills in negotiating the three phases of the caring cycle since caring deeply for a patient, while important, can lead to CF. One needs to seek peer support, consultation, or even attend personal psychotherapy to avoid the pitfalls of vicarious traumatization. Lastly, other emotional symptoms related to VT include feelings such as unbearable anxiety, frustration, inability to experience pleasure, as well as resentful, exhaustive, and flooding reminders of the traumatic event among others. Intense rage may be experienced as well as crying and intolerance

(Quitangon et al., 2016). A study on vicarious trauma was conducted in Kenya among medical students at the Kenya Medical Training College (KMTC) in 2015. The results showed that out of 250 of the research participants, 2.0% had mild VT, 30.0% had moderate VT, and 68.0% had severe vicarious trauma. The same study showed a positive correlation between vicarious trauma and intrusive recollections of the trauma with a p-value of 0.017 and reliving the trauma (flashbacks) with a p-value of 0.035. In Addition to the levels of severity, the study also concluded that there is a high prevalence of VT which is also said to be more severe, among medical students especially those who are still early in their medical careers (Kariuki, 2015). One of the objectives of the study at hand was to investigate the differences in the severity of vicarious trauma among medical workers with different years of work experience.

Mairean et al (2014), in their study, assessed vicarious trauma and secondary traumatic Stress among 52 medical staff. The findings of the study were that the long-term repeated exposure to the trauma of others is significantly related to higher levels of changes related to intimacy with others. The authors described intimacy as the need to feel connected to one another. They argue that because of vicarious trauma, one's belief in intimacy with others is significantly disrupted. From their study, they found that this disruption manifested in symptoms such as difficulties being alone, needing to fill alone time with activities in addition to socially withdrawing from others. The conclusion of the study aligns with the constructivist self-development theory that VT results from repeated exposure to traumatized individuals.

Methodology

The study used a cross-sectional descriptive research design since the study focused on different populations of participants which were nurses and medical doctors from different departments) working at KNH. A total of 160 participants were targeted for the study but only 130 responded. The sample size was selected via systemic random sampling. The participants were drawn from various departments whining the hospital such as the Accident & Emergency unit, the burns unit, the critical care unit, the special surgery unit and the generalized surgery unit.

In data collection, Vicarious Trauma Scale (Benuto et al., 2018) was used. The instrument is a brief 8 items questionnaire The VTS has also has adequate internal consistency reliability

(Cronbach's alpha =.88). It is a standardized self-report measure that consists of 7 items that measure subjective levels of distress that are a result of working with traumatized populations such as the medical population. The scale is rated on a 7-point Likert scale ranging from 1 (strongly agree) to 7 (strongly disagree). The total scores range from 8 to 56; a higher score indicates severe levels of vicarious trauma while lower scores indicate low levels of VT.

To measure compassion fatigue, the Professional Quality of Life Scale (ProQOL R-IV) was used. ProQOL R-IV has 30 items with three subscales: compassion fatigue (a=0.80), compassion satisfaction (a=0.87) as well as burnout (a=0.72). Each of the mentioned constructs is measured through a 10-item scale, (Mason & Nel, 2012). Participants are requested to select a response rating from a six-point Likert scale. The answers range from 0 (never) to 5 (very often). For this study, the researcher only focused on the subset of compassion fatigue from this particular measure.

Results

The study achieved a response rate of 79% and in consideration of the socio-demographic characteristics such as gender, and age, among others, 3.1% of the respondents were female while 46.9% were male. Additionally, 27.7% were between 41-45 years old, 25.4% were between 31-35 years, 22.3% were between 36-40 years, 20.8% were between 26-30 years, and 2.3% were between 21-25 years old while 1.5 of the respondents did not indicate their gender. On the education level, 69.2% of them had a university level of education whilst 30.8% indicated having a college education. On marital status, the total sample size, 57.7% indicated that they were engaged/married, 34.6% were single, 1.5% indicated being widowed while 3.1% did not indicate their marital status. On religious affiliation, 82.3% indicated being Christians, 11.5% Muslims, and 3.8% Hindu while 2.3% did not show their religious affiliation.

The study also considered professional background, out of the 130 participants, 54.6% of the respondents were medical doctors and 45.4% were nurses. In terms of work experience, 43.8% had worked between 6-15 years, 36.2% had worked between 6 months and 5 years, 16.9% had worked between 16 to 25 years, and only 2.3% had worked between 26 and 35 years. A total of 26.9% of the respondents were drawn from the accident & emergency department and specialized surgery departments respectively. Of the other respondents, 18.5%

worked in the critical care unit while 13.1% worked in the burns unit and the generalized surgery unit respectively. However, 1.5% did not indicate their department.

For the determination of the severity of vicarious trauma, the vicarious trauma scale was used and table 1.1 shows the data presentation of the analysis of the different levels of vicarious trauma.

Table 1.1: Levels of Vicarious Trauma

Levels	Frequency	Percent
High levels of Vicarious	13	10.0
Moderate of vicarious	64	49.2
Low levels of vicarious	53	40.8
Total	130	100.0

As indicated in table 1.1, severity was shown by the different levels of vicarious trauma. The findings indicate that 10.0% of the study participants had high levels of vicarious trauma, 49.2% had moderate levels of vicarious trauma, and 40.8% had low levels of vicarious trauma. Overall, the respondents had average severity levels of 31.3 (SD = 8.65). This finding implied that the respondents had moderate levels of vicarious trauma. Subsequently, table 1.2 shows the itemized response of the vicarious trauma scale.

Table 1.2: Itemized responses for vicarious trauma

	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
My job involves exposure to distressing materials and experiences.	3.8%	2.3%	7.7%	38.5%	47.7%
My job involves exposure to traumatized or distressed clients.	3.8%	1.5%	6.2%	32.3%	56.2%
I find myself distressed by listening to my client's stories and situations.	13.8%	30.8%	26.9%	24.6%	3.8%
I find it difficult to deal with the content of my work.	25.4%	50.8%	19.2%	3.1%	1.5%
I find myself thinking about distressing material at home.	29.2%	45.4%	12.3%	7.7%	5.4%
Sometimes I feel helpless to assist my clients in the way I would like.	12.3%	37.7%	25.4%	16.2%	8.5%
Sometimes I feel overwhelmed by the workload of my job.	8.5%	11.5%	30.0%	34.6%	15.4%
It is hard to stay optimistic given some of the things I encounter in my work.	26.9%	47.7%	13.8%	6.9%	4.6%

On the itemized response of the vicarious trauma, it was clear that a majority 86.2% of the respondents expressed that their work involved exposure to distressing materials and experiences. Moreover, about 88.4% acknowledged that their job involved exposure to traumatized or distressing clients, and about 50% indicated that they sometimes felt overwhelmed by the workload. Nonetheless, approximately 76.2% denied finding it difficult to deal with the content of their work. Also, 74.6% disapproved of the idea that it was hard to stay optimistic given some of the things they encounter at work.

Similarly, this study sought to understand the levels of compassion fatigue among the workers as shown in table 1.3.

Table 1.3: Levels of compassion fatigue

Level	**Frequency**	**Percent**
High fatigue	3	2.3
Moderate fatigue	29	22.3
Low fatigue	98	75.4
Total	130	100.0

The results on the levels of compassion fatigue revealed that 75.4% of the medical workers showed low levels of compassion fatigue, 22.3% moderate level of compassion fatigue and 2.3% high levels of compassion fatigue. Overall, the respondents had a mean of 19.83 (SD = 6.87). The results indicated that the medical workers had low levels of compassion fatigue. To further understand the levels of compassion fatigue among the respondents, table 4.4 shows the itemized response of compassion fatigue.

Table 1.4: Itemized response for compassion fatigue

	Never	Rarely	Sometimes	Often	Very Often
I am preoccupied with more than one patient at work	0.8%	8.5%	38.5%	28.5%	23.8%
I jump or am startled by unexpected sounds	53.8%	30.8%	12.3%	1.5%	1.5%
I find it difficult to separate my personal life from my life as a medical worker	50.0%	33.8%	11.5%	3.8%	0.8%
I think that I might have been affected by the traumatic stress of the patients I help	43.8%	31.5%	18.5%	3.1%	3.1%
Because of my helping, I have felt on edge about various things	12.3%	38.5%	40.0%	6.9%	2.3%
I feel depressed because of the traumatic experiences of the patients I help	45.4%	36.2%	13.8%	3.1%	1.5%
I feel as if I am experiencing the trauma of the patients I help.	56.2%	24.6%	15.4%	1.5%	2.3%
I avoid certain activities or situations because they remind me of the frightening experiences of the patients that I help.	54.6%	26.9%	13.1%	2.3%	3.1%
As a result of my work, I have intrusive, frightening thoughts.	71.5%	13.8%	10.8%	1.5%	2.3%
I can`t recall important parts of my work with trauma patients.	50.8%	33.1%	13.1%	0.0%	3.1%

According to table 1.4, about 90.8% of the respondents indicated that they are preoccupied with more than one patient at work. Additionally, about 50% acknowledged that they have felt on edge about various things because of helping others. Nonetheless, most of the respondents 85.2% denied having had intrusive, frightening thoughts, while 83.8% denied finding it difficult to separate their personal lives from their lives as medical workers.

Discussion

On the severity of vicarious trauma, this study established that 10.0% of the medical workers had high levels of vicarious trauma, 49.2% had moderate levels of vicarious trauma and 40.8% had low levels of vicarious trauma. The overall severity of vicarious trauma was 31.3 (SD = 8.65). This finding was slightly related to a previous study carried out among 250

Kenya Medical Training College (KMTC) students in Kenya that found that 2.0% of the students had mild VT, 30.0% had moderate VT, while 68.0% had severe vicarious trauma (Kariuki, 2015). In addition, this study showed that there was no relationship between vicarious trauma and gender. This is similar to a study by Uziel et al. (2019) which showed that there was no relationship between gender and vicarious trauma.

Similarly, on compassion fatigue, the current study showed that 75.4% of the medical workers had low levels of compassion fatigue, 22.3% moderate levels of compassion fatigue and 2.3% high levels of compassion fatigue giving a mean of 19.83 (SD = 6.87). This however contradicts a study by Woolhouse et al. (2012) which found that among nursing students, 60% were at high risk of compassion fatigue, while 35.21% were at medium risk. On the relationship between compassion fatigue and the number of years worked, the current study showed that there was no relationship between the two. These findings contradict that of Uziel (2019) which states that the severity of compassion fatigue reduces with the subsequent number of years of practice.

Conclusion

Despite this study establishing profound findings, there were some limiting factors or gaps that future studies should take into consideration. Future studies should consider using a larger sample size compared to that used in this study. This study was carried out during the Covid-19 period whereby the pandemic might have to some extent influenced the results of the study. Therefore, future studies should consider conducting the study when there is no pandemic.

This study established that the medical workers had moderate levels of vicarious trauma and compassion fatigue. Therefore, based on this, it is recommended that periodical work-related training and workshops could be carried out especially regarding the impact of vicarious trauma and compassion fatigue among the medical workers. Additionally, team building and social bonding programs should be encouraged in the organization to improve interpersonal relations and to reduce cases of vicarious trauma. Lastly, medical workers could be encouraged to often seek psychological support concerning vicarious trauma.

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