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The Predictive Role of Work Setting in the Development of Compassion Fatigue among Health Care Professionals in Moi Teaching and Referral Hospital, Kenya

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Abstract

Compassion fatigue is a condition unique to the human service occupations, characterized by a state of tension and preoccupation with the traumatized clients by re-experiencing traumatic events. With increased incidences of traumatic events both nationally and globally, the greater burden of care and after-care is usually borne by health care professionals. The objective of this study was to determine the predictive role of work setting in the development of compassion fatigue among health care professionals in Moi Teaching and Referral Hospital (MTRH) Eldoret, Kenya. The study was guided by Figley Model of Compassion Fatigue and adopted the Ex Post Facto research design. The target population was 76 doctors, 212 nurses and 33 counselors working in twelve units (grouped into more traumatizing and less traumatizing) offering specialized patient care services. A stratified simple random sampling technique was used to select a sample of 82 participants comprising of 19 Doctors, 54 Nurses and 9 Counselors. The independent variable was Years of Experience while Compassion Fatigue was the dependent variable. Data was collected using a demographic questionnaire, the "Professional Quality of Life Scale (ProQoL) version V". Data was analyzed using analysis of variance (ANOVA) and t-tests. All the inferential statistics were tested at 0.05 level of significance and data presented in form of percentages, frequencies and means while graphic presentation was in form of graphs. The result showed a statistically significant association between work setting and compassion fatigue with a *t* of 6.266 and a *p* of <0.05 on the basis of which the hypothesis was therefore rejected. Based on the findings of this study, it is recommended that professional licensing bodies such as Kenya Medical Association, Kenya Counseling and Psychologist Association, Nursing Council of Kenya which license doctors, counselors and nurses respectively should include wellness and impairment of care providers in their respective curricular.

Keywords: Moi teaching and referral hospital; Traumatizing areas; Traumatizing work

The Study Problem

Kenya in the recent past has been experiencing a myriad of traumatic incidences which are increasing by the day. Critical incidences are such as domestic violence, bizarre murders, rape and kidnapping, collapsing of buildings and terrorist attacks that has been experienced in Nairobi, Lamu, Mandera, Wajir and the attack of Garrisa University College where 147 students lost their lives and scores of others suffered both physical and psychological trauma. The country is also facing an upsurge of both social and medical problems such as child delinquency, drug addiction, pornography and chronic illnesses such as cancer and HIV/AIDs. Effects of all these and many other health related issues expose health care professionals to compassion fatigue.

As a referral facility, and due to its location on the highway to Uganda, Rwanda, Burundi and South Sudan, Moi Teaching and Referral Hospital (MTRH) handles emergencies of all nature from Western Kenya Regions and beyond. Health care professionals in the institution are therefore always on high alert because of the risks of exposure to highly infectious diseases such as Ebola and Multi-Drug Resistance Tuberculosis (MDR), among other dreadful conditions. Further, survivors of critical incidents such as the 2007/2008 Post Election Violence (PEV) that affected the country are usually attended to at MTRH. The health care professionals not only attended to the hospitalized but also extended care to the survivors in the camps which further exposed them to traumatic experiences.

Prevalence of Compassion Fatigue among health professionals in other parts of the world has been widely studied [1]. However, limited studies have been documented in Kenyan hospitals. Specifically no study has attempted to carry out an investigation of compassion fatigue on more than one health care profession in one setting and more importantly drawing a comparison of the constructs among doctors, nurses and counselors in MTRH despite the widespread evidence of compassion fatigue in this population globally. This study therefore envisaged filling this gap concerning the association between work setting and the development of compassion fatigue amongst health care professionals in MTRH.

The Study Hypothesis

The following hypothesis was tested to determine the association between the independent and dependent variables:

H_0: There is no significant association between work setting and the development of compassion fatigue amongst health care professionals in MTRH.

Research Design

The study adapted an ex post facto research design. This design was ideal since the current study aimed at describing and establishing

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the relationship between predictive and protective factors and the development of compassion fatigue among Doctors, Nurses and Counselors. Ex post facto design describes an existing relationship between variables which cannot be manipulated at the time of the study and whose difference has already occurred and must be studied in retrospect. It comprises of collecting data to determine the cause or reason for preexisting differences in groups of individual [2]. The design therefore allowed investigation of the difference in the nature of association of work experience and the development of compassion fatigue among Doctors, Nurses and Counselors in MTRH hence allowing for a comparison of compassion fatigue between the three categories of health care professionals.

Target population

The target population for this study comprised of 76 Doctors, 212 Nurses and 33 Counselors working in a total of 12 units offering specialized patient care in Moi Teaching and Referral Hospital – Eldoret. This population was based on the staff population records maintained by the Human Resource Department of the Hospital. The units were Intensive Care Unit (ICU)/High Dependence Unit (HDU), Sexual and Gender Based Violence Centre, Oncology Unit, New Born Unit (NBU), Ophthalmology (Eye) Unit and Alcohol and Drug Rehabilitation Unit (ADA-R), Psychiatric unit, Accident and Emergency Department, Burns Unit, Cardiac Care Unit, Renal Unit and Labour Ward. A list of the health care professionals (doctors, nurses and counselors) working in the twelve units was obtained from the Chief Nurse Office, the office of the Deputy Director Clinical Services and the Head of Department of Psychological Counseling respectively. The researcher ensured that the sampling frame to be used for the study (the list of Doctors, Nurses and Counselors working in the twelve units) was complete and accurate by confirming the same against records kept by the Officers-in-charge of these units so that the findings from the study would be generalized beyond the sample or the sampling frame from which the sample was drawn. Distribution of the target population is presented in Table 1.

Sample size and sampling technique

The coefficient of variation formula by Nassiuma [3] was used to determine the sample size. This formula is useful in obtaining samples from population whose underlying probability distributions are unknown. A coefficient of variation of 21% and standard error of 2% was used in this study. The lower limit for coefficient of variation and standard error was selected so as to ensure low variability in the sample and minimize the degree of error [4].

$$n = \frac{NCV^2}{CV^2 + (N-1)e^2}$$

Where,

n=Sample size

N=Population

CV=Coefficient of Variation

e=error

Therefore, N=321; CV=21%; e=2%

$$\frac{321 \, x \, 0.0441}{0.0441 + (320 \, x \, 0.0004)}$$

$$\frac{14.1561}{0.1721} = 82.3 = 82$$

The sampling procedure for this study was stratified simple random technique where the obtained sample size of 82 was proportionately distributed among the three health care professional categories (strata) as shown in Table 2.

The final distribution of the sample from the various work settings is as shown in Table 3 below. A simple random sampling procedure was used to identify the participants from the obtained samples.

Data sources and instruments

Data for this study was collected using self-administered questionnaires. The questionnaires were organized in three parts. Part I was designed to gather demographic information about the respondents, part II, the Professional Quality of Life Scale version V (ProQoL-5) was used to measure compassion fatigue.

The Professional Quality of Life Scale (ProQoL-5) Version V" is a standardized scale widely used to assess compassion fatigue and compassion satisfaction among helping professions. Developed by Stamm [5], ProQoL-5, is a 30-item instrument that asks participants to respond based on how they have been feeling over the last 30 days on a 5-point Likert scale (1 being never, 5 being very often). The tool has been widely used in studies on compassion fatigue. The demographic questionnaire was developed by the researchers.

Ethical considerations

This research involved collecting data from doctors, nurses and counselors using self-administered questionnaires. The research approval was obtained from the Institutional Ethics Committee (IREC), Moi University/MTRH and the National Commission for Science, Technology and Innovation (NACOSTI).

Health Care Professional	Total Number
Doctors	76
Nurses	212
Counselors	33
Total	**321**

Table 1: Distribution of target population.

HCP	Target Population	Sample size
Doctors	76	19
Nurses	212	54
Counselors	33	9
Total	**321 (N)**	**82 (n)**

Table 2: Sample distribution of Health Care Professionals (HCP) by category.

Work Settings	Doctor	Nurses	Counselors
ICU	1	7	1
CAR-E	1	1	1
Oncology	3	3	1
New born	2	9	1
Ophthalmology	1	3	-
ADA-R	1	2	1
Psychiatry	2	3	1
A&E	2	10	1
Burns Unit	1	3	1
Cardiac Care	1	3	1
Renal Unit	1	4	-
Labour Ward	3	6	-
Total (N)	**19**	**54**	**9**

N=82

Table 3: Sample distribution of health care professionals by work setting.

To meet the requirements of Ethical Principles of research dealing with human subjects and to ensure confidentiality of the participants, the following measures were undertaken:

1. The objectives, issues, risks and benefits of the study were conveyed to the participants.

2. Formal consent was obtained from the participants prior to administration of the questionnaires.

3. The participants who agreed to participate were informed that they were free to withdraw from the study at any time.

4. The privacy of the participants and the confidentiality of data that was obtained from the participants was strictly maintained in such a manner that the participants cannot be identified in the report or any related publications.

Data and Results

Association between work setting and development of compassion fatigue

The study tested the hypothesis on Work Setting and Compassion Fatigue which stated:

H_0: There is no significant association between work setting and development of compassion fatigue amongst health care professionals in Moi Teaching and Referral Hospital.

The variable work setting was determined by the nature of clients or patients that a health care provider dealt with. Studies on nurses, counselors and physicians by Kiwol et al. [6], Bowen [7] and Kearney et al. [8], respectively registered high levels of compassion fatigue among emergency care and hospice nurses, counselors working with suicidal patients and children and among physicians working with end of life patient.

There were 12 work settings sampled for this study namely ICU, Accident/Emergency, Cardiac Care Unit, Burns unit, Oncology, Sexual and Gender based violence centre, Psychiatry unit, Alcohol and drug rehabilitation unit, Renal Unit, Labour ward, Ophthalmology and NBU. For the purpose of analysis and comparison of findings these work settings were grouped into two categories based on perceived severity of exposure to traumatic materials; less traumatizing and more traumatizing.

Findings of this study revealed that health care professional working in areas perceived to be more traumatizing registered higher scores of compassion fatigue with a mean of 27.3 and a standard deviation of 10.3 as compared to those working in areas perceived to be less traumatizing who had a compassion fatigue mean score of 14.1 and a standard deviation of 7.6 (Table 4). The above results were subjected to a t-test and the results are given in Table 5.

The result showed a statistically significant association between work setting and compassion fatigue with a t of 6.266 and a p of <0.05 as shown in Table 5. Hypothesis two was therefore rejected on the strength that the results of the work setting variable on compassion fatigue did not support the null hypothesis. According to the results therefore, there is a significant association between work setting and development of compassion fatigue amongst health care professionals in Moi Teaching and Referral Hospital.

This signifies that working in more traumatizing areas is associated with a higher risk of developing compassion fatigue compared to working in less traumatizing areas. Dealing with the sick, the injured and people undergoing physical or psychological trauma though fulfilling to health care professionals can be in itself a hazard. Nurses and doctors usually have the first encounter with the sick and injured. Consistent exposure to raw wounds, fatally injured, unconscious patients and more has the potential to cause psychological, physical and emotional traumas. A further analysis of the relationship between work setting and compassion is presented in Figure 1.

Figure 1 shows that nurses had a higher mean score of compassion fatigue than doctors in both work settings. Counselors on the other hand had a higher mean score in less traumatizing work settings than doctors and nurses but fewer score than doctors and nurses in more traumatizing work setting. The low compassion scores among counselors in more traumatizing areas compared to scores in less traumatizing areas could probably be explained by the fact that counselors tend to utilize peer supervision and debriefing more when working in these units because of the nature of clients dealt with. It is also evidently clear from Figure 1 that compassion fatigue scores are much higher in the more traumatizing work settings compared to the less traumatizing work setting. Another key observation from these findings was that counselors had consistently high scores in both work settings with a small difference between the two means; 18.33 in the less traumatizing work settings and 25.33 in the more

Figure 1: Association between health care professionals and compassion fatigue (considering work setting).
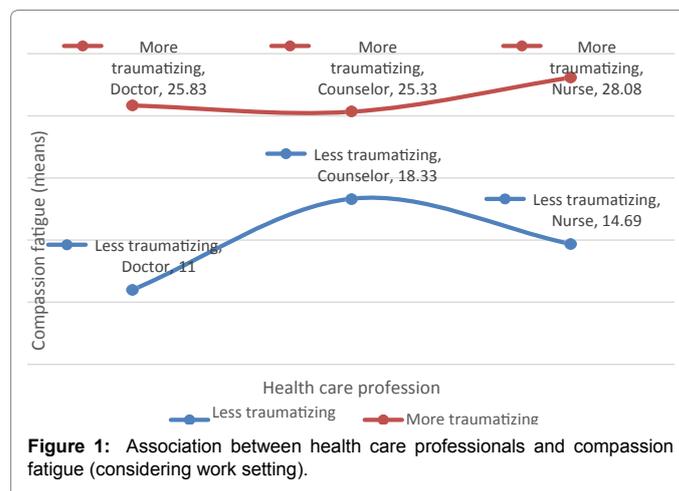
	Work Setting (Regression)	N	Mean	Std. Deviation	Std. Error
Compassion Fatigue	Less traumatizing	38	14.11	7.640	1.239
	More traumatizing	37	27.27	10.319	1.696

Table 4: Work setting and compassion fatigue

		t	df	Sig. 2-tailed	Mean Difference	Std. Error	95% Confidence Interval	
							Lower Bound	Upper Bound
Compassion Fatigue	Equal Variance not assured	6.266	66.309	.000	-13.165	2.101	-17.359	-8.970

Table 5: Work setting and compassion fatigue (t-test).

traumatizing work settings as compared to doctors whose scores more than doubled (11 and 25.83) between the two work settings. The difference in mean scores for the two professions could be explained by the fact that unlike doctors, counselors are exposed to monthly clinical supervision which is scheduled from their department.

Discussion of findings on the work setting and compassion fatigue

The second objective sought to determine the role of work setting as a predictive factor in the development of compassion fatigue among health care professionals. Important to note here is that people working as health care professionals are required to spend considerable face-to-face time with clients who need their support. Frequent interactions with these care recipients, exposure to chronically or terminally ill patients, and confrontation with death and dying have been found to be the root causes of compassion fatigue among health care professionals. In the course of working with victims of traumatic events, health care professional can themselves fall victim to secondary traumatic stress reactions [1]. This is quite agreeable with findings of this study which showed that working in units that dealt with more critically ill patients such as Accident and Emergency unit, ICU/HDU/, CCU, Burns unit as well as dealing with clients who had undergone intense traumatic experiences such as Sexual and Gender Based Violence survivors was associated with high compassion fatigue scores.

Despite the fact that all the sampled units actively dealt with sick people or people who were undergoing various health challenges, it is interesting to note that respondents who worked in units that were grouped under perceived less traumatizing such as Renal Unit, Alcohol and Drug Rehabilitation unit, Labour ward, Ophthalmology and New born unit had low compassion fatigue scores. These findings could be attributed to patient management outcome related factors such as satisfaction gained after successful delivery of a live baby in labour ward, successful rehabilitation of persons with Substance Use Disorders and successful renal dialysis and transplants among others. In comparison to the experience of caring for the critically ill and dying, caring for patients with good prognosis can be more satisfying to the care givers due to the optimism that it provides [9-11].

Association of compassion fatigue and work setting in the general linear model in the current study revealed the individual contribution of the variable work setting to the development of compassion fatigue was 22.1% which is quite significant. This shows the effect that work settings have on the health care professionals and by extension the cost of caring.

Conclusion

The association between work setting and development of compassion fatigue revealed that participants who worked in more traumatizing work settings had nearly twice as high compassion fatigue mean scores (27.3) as compared to those who worked in less traumatizing areas who registered a mean score of 14.1. These findings imply that work setting is a strong predictor of compassion fatigue as denoted by the high mean scores registered among health care professionals working in more traumatizing work settings in MTRH.

Recommendations

Where possible regular changeovers should be instituted. This will ensure that health care professionals are not continuously working in traumatizing work settings. Where changeovers are not possible due to skill requirements work shifts should be made in such a way that they allow adequate time off and rest.

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