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Research Article

The Predictive Role of Work Experience 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 experience 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 multiple comparison test.

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. An F statistic of 5.281 with a p value of 0.002 ($p< \alpha$) was obtained on the basis of which the null hypothesis was rejected.

The implication was that as health care professionals gain more experience their chances of developing compassion fatigue decrease since with experience and skills comes better coping denoted by better decision making skills, self-management skills among other skills necessary in the world of work. Employees should be given fairly stable work arrangements and tenures so as to enable them to build resilience. Again, supervision and psychotherapy should be availed to workers to help counter compassion fatigue.

Keywords: Compassion Fatigue, Health Care Professionals, decision making skills.

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 2007/8 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 (Smit, 2006). 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 experience of health workers 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 experience 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 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 (Fraenkeal & Wallen, 2010). 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.

Table 1. Distribution of Target Population

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

Sample Size and Sampling Technique

The coefficient of variation formula by Nassiuma (2000) 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 (Ndung'u, 2008).

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

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.

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

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

The final distribution of the sample from the various work settings is as shown in table 3 below.

Table 3. Sample Distribution of Health Care Professionals by Work Setting (N=82)

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**

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 (2009), 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).

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

The study hypothesis based on Work Experience of a Health Care Professional and Compassion Fatigue was stated thus:

H_{01}: There is no significant association between Work experience and development of compassion fatigue amongst health care professionals in Moi Teaching and Referral Hospital

Work experience is key to good performance of care givers. Studies have indicated that experience and skills development increase with age which further helps clinicians to better cope with job stressors.

In a study on emergency care nurses and another on health care workers, Smit (2006) and Hunsaker (2013) found that work experience contributed to higher compassion satisfaction while less years of practice was associated with compassion fatigue.

Table 4. Number of years of experience as a health care professional

Years (%)	Frequency	Percentage
< 5 years	19	25.3
5 – 10 years	15	20.0
11 – 15 years	18	24.0
> 15 years	23	30.7
Total	**75**	**100**

The findings from the current study as shown in table 4 indicated that the majority of the respondents (23) representing 30.7% had a work experience of more than15 years while the least (20%) had work experience of between 5-10 years. These findings implied that the majority of the health care professionals had acquired experience and skills that would enable them to better cope with job stressors.

Table 5. Years of experience by profession (n = 75)

Numbers of years of experience as health care professionals	Doctors	Nurses	Counselors	Total
< 5 years	2	3	14	19
5 – 10 years	1	2	12	15
11 – 15 years	4	1	13	18
> 15 years	8	3	12	23

A further breakdown on the variable work experience indicated that majority of the doctors accounting for 53.3% were found to have longer working experience (>15yrs) while few nurses (23.5%) were found in this category as shown in table 5. In the less than 5 years' work experience category, counselors were the majority at 33% while doctors were the least at 13%. Nurses were however found to be fairly distributed across all the work experience categories with the majority (27%) having worked less than 5 years while 23.5% had worked for over 15 years. The high number of doctors with long working experience would explain their low scores of compassion fatigue found in this study while the high percentage of nurses and counselors with less work experience would explain their high scores of compassion fatigue.

Table 6. Association of work experience and compassion fatigue (ANOVA) (n=75)

Compassion Fatigue	Sum of Squares	df	Mean Squares	F	Sig.
Between Groups	1686.026	3	562.099	5.281	.002
Within Groups	7556.222	71	106.426		
Total	**9242.248**	**74**			

The ANOVA results of this study (Table 6) showed an F statistic of 5.281 with a p value (p = 0.002) less than the significant value of 0.05 denoting that a statistically significant association between work experience and compassion fatigue exists. ANOVA was suitable here because it compares two means. These findings indicate that as health care professionals gain more experience their chances of developing compassion fatigue decrease since with experience and skills comes better coping denoted by better decision making skills, self-management skills among other skills necessary in the world of work. Subsequently hypothesis one was rejected on the strength of these findings. Therefore there is a significant association between work experience and development of compassion fatigue among health care professionals in MTRH. This association of the number of years of work experience and compassion fatigue is further explained in the findings shown in table 7.

Table 7. Multiple comparison of compassion fatigue of health care professionals as per the number of years of work experience

(I) NOE	(J) NOE	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
<5 yrs	5-10 yrs	5,762	3.563	0.376	-3.61	15.14
	11-15 yrs	10,951	3.393	0.010	2.02	19.88
	>15 yrs	11,460	3.198	0.003	3.05	12.87
NOE = Number of years of experience as a health professional (I) & (J) are mean score of Compassion Fatigue of NOE						

To find which pairs of means differed significantly, a pairwise multiple comparisons was undertaken as presented in table 7. Those health care professionals that had a working experience of less than 5 years had 5.762, 10.45 and 11.460 scores of compassion fatigue higher than those of the 5–10, 11–15 and over 15 years categories respectively. The difference in means of those in categories 11–15 years and over 15 years indicate that their average compassion fatigue differs significantly from that of <5 years category at 0.05 level of significance (p = 0.01 and 0.003 respectively). The 95% Confidence Interval for the average difference in compassion fatigue between health care professional in <5 years

category and 11 – 15 years category extends from 2.02 to 19.88 scores; the interval for the difference with >15 years category from 3.05 to 19.87 scores.

A comparison of compassion fatigue among the three professions was further conducted as shown in figure 1. The results showed that nurses had a less dramatic change in compassion fatigue scores as the years of experience increased compared to doctors and counselors and more specifically between 11 and 15 years of experience. Their scores (nurses) however stabilized and remained high even as those of the doctors and counselors dropped with increase in number of years of experience. Doctors with < 5 years of experience were noted to have highest scores compared to nurses and counselors and the scores remained higher even for those doctors whose experience was between 5-10 years. A slight increase in the scores was evidenced in the category of doctors whose experience was more than 15 years. A similar trend close to that of doctors was portrayed by the counselors save that counselors depicted lesser scores at the 10 years and below category.

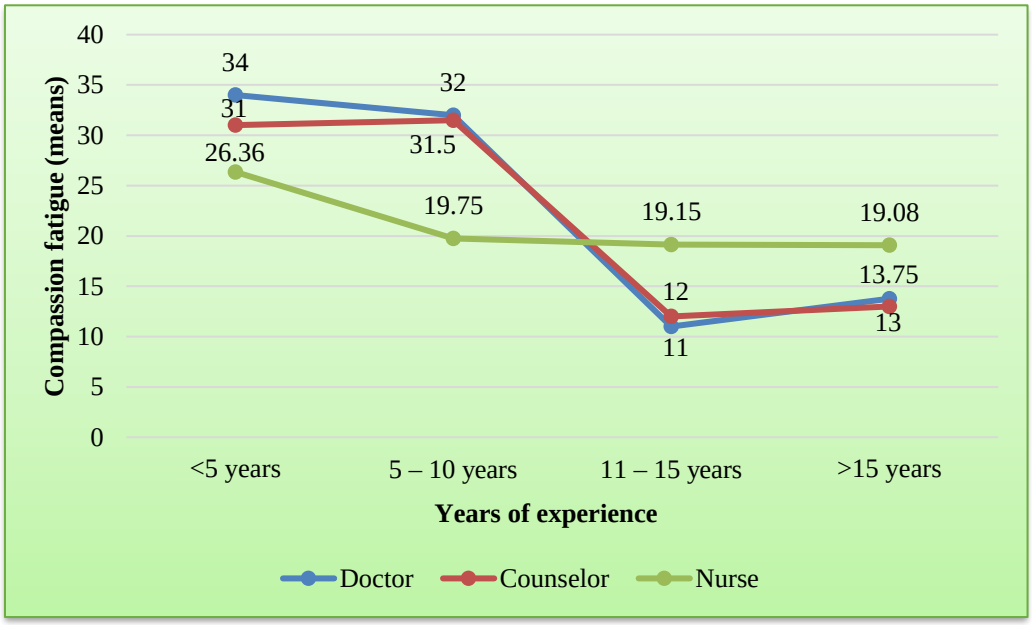

Figure 1. Association between Profession and Compassion Fatigue (considering Years of Experience)

Compassion fatigue trend among health care professionals in this study agrees with studies conducted by Star (2013) on counselors, and Gardner III (2014) on nurses where fewer years of experience among counselors and nurses have been determined to increase vulnerability to compassion fatigue. Research has attributed this to limited technical and coping skills. According to Gardener III (2014), one's ability to handle difficult situations increase with continued practice.

The similarities noted in trend between doctors and counselors is interesting bearing in mind the differences in their approach to treatment where doctors basically approach treatment with a biological perspective while counselors use the psychological perspective. Just as beginning counselors are gripped with the anxieties of beginners characterized by a believe that their clients must get solutions to their problems, beginning doctors too could experience the same anxieties of believing that they must be able to treat all conditions. The raised compassion fatigue scores noted in the two professions at the beginning of their practice period could be attributed to this.

Discussion of findings on the Work Setting and Compassion Fatigue

The objective of this study was to establish the predictive role of work experience in the development of compassion fatigue among health care professionals in MTRH. The findings showed a significant association between work experience and compassion fatigue with respondents who had less number of years of experience as health care professionals showing high compassion fatigue scores compared to those who had more years of experience. Individually, contribution of work experience to the development of compassion fatigue was found to be 22.6% of the overall compassion fatigue scores. This level of compassion fatigue is quite significant and cannot be ignored especially considering the fact that there will always be new professionals joining the health care service at every given time. Such health care workers would require early sensitization and training on self-care in order to reduce the risk and develop skills required to prevent and manage compassion fatigue.

The observation that nurses have high compassion fatigue scores which were sustained across their years of experience compared to those of doctors and counselors is an issue of concern. One would interpret this as an indication that competence development that comes with experience may not necessarily translate to development of coping skills among nurses. Alternatively, these findings could be explained by considering the length of time nurses spend with patients which indisputably increases exposure intensity. Literature further suggests that nurses' training lays emphasis on patient care without considering the wellbeing of the nurse. Together with these assertions, the fact that nursing is a predominantly female profession as evidenced in the current study could also explain the high compassion scores among nurses regardless of their work experience. Other factors that could be attributed to the high prevalence of compassion fatigue among women are the female gender roles. Women continue to juggle multiple roles, including those roles related to the home and family, for which they have sole or major responsibility (Jennings, 2008). A combination of factors, some inherent to the health profession, but key being the work experience could therefore be responsible for the high compassion fatigue scores registered among the health care professionals in this study.

Conclusion

This study has clearly demonstrated the predictive role of work experience and work setting in development of compassion fatigue among health care professionals in MTRH and has also demonstrated the protective role of self-care in the development of compassion fatigue.

Work experience was found to have an influence in the development of compassion fatigue where participants who had less experience (< 5 years) registered a higher level of compassion fatigue (27.9) compared to those who were more experienced (>15 years) whose mean scores were 16.4. Work experience is therefore a protective factor for the development of compassion fatigue.

Conflicts of interest: The authors declare no conflicts of interest.

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