FIELD MEDICINE

ASSOCIATION OF SPECIALTY AND WORKING HOURS WITH COMPASSION FATIGUE

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ABSTRACT

Objective: To find out association of speciality and working hours with compassion fatigue.

Study Design: Cross sectional comparative study.

Place and Duration of Study: Military Hospital and Combined Military Hospital Rawalpindi, Combined Military Hospital Sialkot, from December 2013 to July 2014.

Material and Methods: Fifty four doctors from departments of Medicine, Surgery, Anesthesia and Gynaecology participated in the study. Other health care related personnel, not directly related to patient care, were excluded from the study. The data collection tool was a questionnaire "Professional Quality of Life Measure version 5". Data was analysed by SPSS version 22. Chi Square test for goodness of fit was used to determine difference in the frequency distribution of various categories of a single variable whereas Chi square test for independence was used to find association between two categorical variables. The *p*-value was kept at < 0.05 for significance.

Results: Results showed 11 females and 43 males with mean age of 37.69 ± 9.72 years. Cronbach's alpha was 0.81. Eleven participants (20.4%) showed low compassion fatigue, 37 (68.5%) showed average whereas only 6 participants (11.1%) showed high compassion fatigue scores and the difference was significant (*p*-value < 0.001). Working hours were associated with compassion fatigue (*p*-value = 0.03) but speciality was not (*p*-value = 0.41).

Conclusion: Chances of suffering from compassion fatigue are significantly higher if working hours are 12 or more, however the disorder is not associated with speciality.

Keywords: Burn out, Compassion fatigue, Professional quality of life scale, Vicarious trauma.

INTRODUCTION

"The expectation that we can be immersed in suffering and loss daily and not be touched by it is as unrealistic as expecting to be able to walk through water without getting wet"[1]. The saying appropriately reflects the concept of compassion fatigue. It is defined as "a combination of physical, emotional, and spiritual depletion associated with caring for patients in significant emotional pain and physical distress[2]. Health care professionals who are the first responders like doctors and nurses are at high risk of suffering from compassion fatigue. Hence, it has been described as the "cost of caring" for others. The term 'compassion fatigue' was coined by Dr Figley to euphemize the hard expression of other phrases like secondary traumatic stress and vicarious trauma, nevertheless all the terms are used interchangeably[3]. In its extreme form compassion fatigue expresses as 'burnout' which is characterized by "total emotional exhaustion," depersonalization and reduced feeling of personal accomplishment[4].

Compassion fatigue (CF) is a professional hazard and badly affects the ability to empathize with patients, coworkers and even family members. It is an outcome of internalizing and absorbing the emotions of patients. It is perhaps body's natural response to repetitive pain and distress[5]. The sufferer becomes disparaging at work, feels lack of enthusiasm and enjoyment which eventually leads to anxiety, depression, sleeplessness and other stress related problems. The patients become pessimistic towards life and their self-efficacy and confidence drops which further

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aggravate the problem[6]. The most devious aspect of CF is that it assaults the passion for empathy and compassion for others, the factor which is most required from health related professionals[7].

Not all the health related professionals are equally affected by CF. Pathophysiology of CF is multifaceted. There may be internal factors related to the 'psyche' of the patient or external factors related to the outside world. Probability of suffering from compassion fatigue is based upon the relative contribution of both the factors[8]. The most important factor related to patient is the perception paradigm. Other factors are age, gender, degree of compassion and sympathy, personality type and ideology. Job related stress is the main external factor which adversely affects perception resulting in many psychological disorders[9]. Speciality and working hours are additional external factor which are assumed to affect the probability of developing CF. No local study on the subject was found on literature search. Hence, the present study was planned to determine association of speciality and working hours with CF.

MATERIAL AND METHODS

This cross sectional comparative study was conducted at Military Hospital Rawalpindi, Combined Military Hospital Rawalpindi and Combined Military Hospital Sialkot from Dec 2013 to July 2014. Institutional approval was obtained from Armed Forces Post Graduate Medical Institute before starting the study. Consent was obtained from all the participants before starting the study. A total of 93 doctors (trainees and consultants) from the departments of Medicine, Surgery, Anesthesia and Gynaecology were included through non-probability purposive sampling. However, 39 respondents returned the questionnaire partially filled or unfilled and so the sample size was 54 at a response rate of 58%. The doctors included in the study had been working in their respective departments for about ten months on average and were exposed to day to day routine cases. Other health care related personnel (all the non-medical staff like electro-medical people, sweepers etc), not directly related to patient care, were excluded from the study.

The data collection tool was a questionnaire "Professional Quality of Life Measure version 5 (ProQOL-5)"[10]. This is a thirty item closed ended instrument with 3 parts and the responses are on Likert Scale. It has 3 subscales for low, average and high compassion fatigue.

SPSS version 22 was used for data analysis. Continuous variables were presented as mean and standard deviation whereas categorical variables as frequency and percentage. Chi square test for goodness of fit was used to determine difference in the frequency distribution of various categories of a single variable whereas Chi square test for independence was used to find association between two categorical variables. The *p*-value was kept at <0.05 for significance.

RESULTS

Results showed 43(79.6%) males and 11(20.4%) females with mean age of 37.69 ± 9.72 years. Eighteen participants were from department of Medicine, 15 from Surgery, 15 from Anesthesia and 6 from Gynaecology department as shown in table-2. Regarding working hours, 7 participants were in 8 hours group, 20 were in 12 hours and 27 were in over 12 hours group as shown in table-3. Value of cronbach's alpha which was 0.81.

Frequency and percentage of participants with low, average and high CF are shown in table-1. The difference between various categories of CF was significant (*p*-value < 0.001).

Frequency and percentages of participants from various departments with different levels of CF are shown as cross tabulation in table-2. Comparison reveals no association of CF with the specialities as mentioned in table 2 (*p*-value > 0.05).

Table-3 illustrates frequency and percentage of participants suffering from various levels of CF according to working hours. The comparison shows that CF is associated with working hours (*p*-value < 0.05).

DISCUSSION

Results of the study demonstrate that CF was strongly associated with working hours. Frequency of participants with CF was significantly higher in 12 hours and over 12 hours working groups as compared to 8 hours group which is quite alarming. Not only that frequency of patients was significantly low in the group with 8 working hours but important finding was that there was not a single patient with high level CF. All the patients who had high level CF had been working for 12 hours or more. The results also show that average level CF was high in Medicine, followed by Anesthesia, Surgery and Gynaecology, however the difference was not significant. Out of 6 patients suffering from high level CF 2 were from Medicine and 2 from Surgery.

Findings of our study add a very important dimension to the pathophysiology of CF. Apart from the established internal and external factors leading to CF, working hours play an important role in its pathogenesis. The effect appears to be direct as well as indirect. Direct effect is related to likelihood of exposure to more number of traumatized and terminally ill patients in pain and distress. The indirect effect is assumed to be due to rise in anxiety and stress levels which affect individual's perception. Altered perception makes the person more vulnerable to be affected by CF. Both the factors acting jointly put the person at high risk of developing CF which is evident by the results of our study. In an unfortunate individual who already has some other preexisting factors, the situation may become even worse. Interestingly difference in frequency of participants with CF between 12 hours and over 12 hours group was not statistically significant. This is an important finding which points that the risk of developing compassion fatigue is equal for 12 working hours and beyond.

Table-1: Frequency and percentage of participants with CF and their comparison (N=54)

CF level	Frequency	Percentage	*p*-value
Low	11	20.4%	< 0.001*
Average	37	68.5%	
High	6	11.1%	

**p*-value significant

Table-2: Frequency and percentage of CF patients in different specialities and their comparison (n=54)

CF level	Medicine (18)	Surgery (15)	Anesthesia (15)	Gynaecology (6)	*p*-value
Low	2 (18.2%)	6(54.5%)	2 (18.2%)	1(9.1%)	0.41
Average	14 (37.8%)	7 (18.9%)	12 (32.4%)	4(10.8%)	
High	2 (33.3%)	2(33.3%)	1(16.7%)	1(16.7%)	

Note: percentages are within each CF level

Table-3: Frequency and percentage of CF patients with different working hours and their comparison (n=54)

CF level	8 hrs (7)	12 hrs (20)	Over 12 hrs (27)	*p*-value
Low	1 (9.1%)	3 (27.3%)	7 (63.6%)	0.03*
Average	6 (16.2%)	14 (37.8%)	17 (45.9%)	
High	0	3 (50.0%)	3 (50.0%)	

**p*-value significant

Note: percentages are within each CF level.

Findings of our study are supported by Bellolio et al who conducted a study to evaluate CF in doctors[11]. Their study included 188 participants from Emergency Medicine, Neurology, Orthopaedics, Family Medicine, Paediatrics, Obstetrics and Surgery. They collected data regarding working hours, day versus night duty shift and dependent children. They used the same data collection tool i.e.

Professional Quality of Life Scale as we used in the current study. They reported that CF was similar across all the specialities (*p*-value>0.05), however it was significantly higher in participants who had 80 or more working hours (*p*-value = 0.048). Their study further revealed that CF was significantly higher in participants who had night duty shifts as compared to the ones who had day shifts (*p*-value = 0.022). They also reported that the participants with dependent children had higher compassion fatigue scores as compared to those without children (*p*-value = 0.012). These findings are consistent with the results of our study. Association of CF with night shifts and dependent children supports the assumption that stress might be involved in the pathophysiology of compassion fatigue.

Result of a study carried out by Dasan et al are in contrast to those of ours. They studied 681 consultants to find out prevalence, causes and consequences of CF[12]. They reported that CF was associated with different specialities being significantly higher in trauma center as compared to other specialities. Data collection instrument was the same as we used in our study. The contrast in results may be due to differences in organizational set ups, sample size, race of people involved and the specialities as we did not include trauma center in our study. They also reported that number of years one had been working as consultant enhances the probability of CF up till about 20 years beyond which it actually drops. This reveals that etiology of CF is multifactorial which may underlie the variation in results of the two studies.

CONCLUSION

Chances of suffering from compassion fatigue are significantly higher if working hours are 12 or more, however the disorder is not associated with speciality. Health care professionals should think about reducing their working hours if especially they notice any signs and symptoms of compassion fatigue. Administrators of hospitals should also take this important factor into account to 'preserve' compassion in health caregivers as compassion is the foundation of medical profession.

CONFLICT OF INTEREST

This study has no conflict of interest to declare by any author.

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