Compassion Fatigue of Health Workers Treating Patients with COVID-19

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ABSTRACT

Introduction: COVID-19 is a worldwide pandemic that is affecting large sectors of people. The health workers who are treating COVID-19 patients often lack accurate information about the disease and the probabilities of being infected, leading to what is known as compassion fatigue.

objectives: The main objectives of the present study were to assess the levels of compassion fatigue among health workers who are involved in providing health care for patients with COVID- 19 and to explore the differences of compassion fatigue according to independent variables such as gender, job nature, and experience.

Methodology: A cross-sectional study design was conducted. The study's sample comprised 91 health workers, including physicians, nurses, pharmacists, and technicians in the Royal Medical Services. We used compassion satisfaction and compassion fatigue (proQOL) version 5. It involves 30 items to be answered by participants using a 5-point Likert scale: never (1 point), rarely (2 points), sometimes (3 points), often (4 points), and very often (5 points). All answers by participants were entered into Excel spread sheets to create a data file for all the participants. Data analysis was performed using SPSS version 21. The relationships between variables were tested using a chi-squared test and a one-way ANOVA test, and significance was considered at $\alpha \leq 0.05$.

Results: The results revealed a moderate compassion satisfaction level for about 79% of the participants and a high satisfaction level for 21% of the participants. Both the chi-squared test and one-way ANOVA showed no significant associations between satisfaction level and the study's variables.

Conclusions: COVID-19 has impacts on the compassion satisfaction level that were independent of study variables.

Keywords: COVID-19, pandemic, compassion satisfaction, fatigue, proQOL

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INTRODUCTION

The COVID-19 pandemic originally struck in Europe in Italy in January 2020, when two Chinese tourists tested positive for SARS-CoV-2 in Rome (1, 2). More infected individuals were soon identified, starting with 16 confirmed cases in Lombardy on 21 February and increasing to 60 cases the next day, with the principal deaths accounted for.

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When this manuscript was written, there were more than 1,300,000 individuals who had contracted COVID- 19 worldwide and the quantity of deaths in Europe remains at just about 75,000, practically 85% of which were in Italy, Spain, France, and the United Kingdom (3). Jordan ranked 112th in the number of Corona cases worldwide, according to the "World Meter" website. Jordan's ranking came according to the website's data, which monitors the number of infections in the world in an updated manner out of 212 countries. According to the website, the number of injuries recorded in Jordan is 453 cases, 8 deaths, and 362 cases of recovery (28).

The current pandemic has, at least for now, changed the workplace and employment (e.g., high-pressure work, safeness of workspaces, and high-tech communications) (4). The situation has been especially difficult for healthcare workers (HCWs), who are suffering from stress, vulnerability, and criticism (5). They regularly deal with complex, clashing considerations and emotions about their roles as medical care providers and guardians, feeling obligated yet continually worried about contracting COVID-19 and passing it to their families (1-3).

Working under professional obligation to their patients prompted significant demonization (6). COVID-19 infections draw out an entire scope of perspectives, convictions, biases, generalizations, and furthermore, marks of disgrace (7). Under these conditions, feelings assume a key function by potentially contorting one’s decisions or view of reality (8). There is an inconsistency between the obligation owed by specialists, attendants, and medical care providers to their patients and their inner perspectives brought about by the pandemic (9). This can sometimes lead to bias against individuals who are viewed as present-day "plague spreaders." The superseding dread is that of being tainted through a connection with contaminated people or those waiting for test outcomes (10). One of the most common responses in these cases is to encounter dread, an essential feeling that is vital to our self-preservation and endurance. It is this dread that can lead medical service professionals to provide treatment that is less exact or cautious than that which they would give under typical conditions (11). The ramifications of working with possibly profoundly ill patients should be perceived and recognized.

In this specific situation, it is basic to comprehend the impacts of disgrace and of the recurrence of being exposed to the progressing pandemic while attempting to respond to one’s duties with confidence and to examine their effects on HCWs’ results (12). Specifically, it is fundamental to explore whether these factors are creating changes in expert life, including sympathy fulfilment, burnout, and empathy exhaustion for HCWs (13). What is more, it is similarly conceivable to conjecture on the impacts of relevant factors, for example, hierarchy, position, long stretches of work, and professional duties (15). Shame and segregation will in general continue in the long haul, even after the isolation has finished and the plague has been contained. Human Resource Management (HRM) should emphatically endeavour to lessen shame among HCWs, as well as the related pressure of expanded tasks and dealing new assignments. Both efficient preparations, explicit organizational gatherings, personal counselling can be significant apparatuses to battle burnout and the social marks of disgrace (16).

Compassion fatigue is defined as a harmful consequence of experiencing job stress among professionals, which can affect job performance and damage mental and physical health (17).
Compassion fatigue resulting from empathy is a common phenomenon among a variety of medical professionals, including nurses.

Nurses become the largest group of healthcare providers with the goal of supporting patients with compassion according to their physical, mental, emotional and spiritual needs, while other professionals rarely do so (18). As a result, they face more work-related problems. Compassion fatigue can be regarded as an emotional exhaustion resulting from long exposure to trauma patients and their families (19).

Study objectives: The main objectives of the present study were to assess the levels of compassion fatigue among HCWs who are involved in providing health care for patients with COVID-19 and to explore differences in that compassion fatigue according to independent variables such as gender, job nature, and experience (working years).

METHODS AND SUBJECTS

A cross-sectional study design was included in this study to collect data from study participants. The study was approved by institutional review board (IRB) at Royal Medical Services.
The study's sample comprised 91 participants, including physicians, nurses, pharmacists, and laboratory technicians in Royal Medical Services. The questionnaire for measuring compassion fatigue is called compassion satisfaction and compassion fatigue, (proQOL) version 5. It involves 30 items to be answered by participants using a 5-point Likert scale: 1 point for never, 2 points for rarely, 3 points for sometimes, 4 points for often, and 5 points for very often. All answers by the participants were entered into Excel spread sheets to make a data file for all the participants. Of the 30 items included in the compassion satisfaction and compassion fatigue (proQOL) version 5, 10 items were designed to measure compassion satisfaction: items 3, 6, 12, 16, 18, 20, 22, 24, 27, and 30. The sum of these items was categorized as follows: low satisfaction if the sum was ≤22, moderate satisfaction if the sum was between 23 and 41, and high satisfaction if the sum was ≥42. The total score of the tool is 50.
This questionnaire, the Professional Quality of Life Scale-V (ProQOL-V) was used to evaluate the perceived quality regarding the work (12). This questionnaire is composed of three subscales: compassion satisfaction (10 items), burnout (10 items), and secondary traumatic stress (10 items) (20, 21).
Experience variable means working years of participant. This questionnaire is internationally used and its reliability and validity were accepted by scientific community (27).
A convenient sampling technique was used to collect data from study participants due to the conditions of the COVID-19 pandemic. The research team collected data from 16-8-2020 to 15/10/2020.

Data analysis was performed using SPSS version 21, and the data are presented in tables describing the variables. The relationships between the variables were examined using a chi-squared test and one-way ANOVA test. Significance was considered at $\alpha \leq 0.05$.

RESULTS

Demographic variables of the study participants
Table I indicates that there were 91 study participants, of whom 52 (57.1%) were males. The participants' mean age was 31.36±4.94 years, and their mean experience was 9.08±5.40 years.

Regarding jobs, nurses comprised the largest proportion (59.3%), followed by physicians (28.6%), while pharmacists and laboratory technicians made up the least proportion (12.1%)

Table I: Demographic variables of study participants

Variable	Description
Gender (N, %):	
Males	52 (57.1%)
Females	39 (42.9%)
Age (M±SD) years	31.36±4.94
Experience years (M±SD) years	9.08±5.40
Job (N, %):	
Physicians Nurses Pharmacists	26 (28.6%)
Laboratory technicians	54 (59.3%)
	6 (6.6%)
	5 (5.5%)

Means and standard deviations of compassion fatigue questionnaire answers

The compassion fatigue questionnaire included 10 statements. As indicated in Table II, the highest mean was for the statement: "**I get satisfaction from being able to [help] people**" (4.14±0.94), and the lowest level was for the statement: "**I am happy that I chose to do this work" (290±1.56).** The remaining statements were in the range between the lowest and highest means, as stated above.

Table II: Means and standard deviations of compassion fatigue questionnaire answers

Item No.	Item	M	SD
1	I get satisfaction from being able to [help] people.	4.14	0.94
2	I feel invigorated after working with those I [help].	3.64	1.10
3	I like my work as a [helper].	3.82	0.967
4	I am pleased with how I am able to keep up with [helping] techniques and protocols.	3.87	0.973
5	My work makes me feel satisfied.	3.95	1.27
6	I have happy thoughts and feelings about those I [help] and how I could help them.	3.67	0.94
7	I believe I can make a difference through my work.	3.56	0.999
8	I am proud of what I can do to [help].	3.82	1.03
9	I have thoughts that I am a "success" as a [helper].	3.78	1.02
10	I am happy that I chose to do this work.	2.90	1.56

Satisfaction level according to ProQOL

As shown in Table III, 79% of the study participants reported a moderate level of satisfaction, while 20% of the participants reported a high level of satisfaction. Only one participant reported a low level of satisfaction.

Table III: Satisfaction level according to ProQOL

Satisfaction level	Frequency (N)	Percentage (%)
Low	1	1.1%
Moderate	72	79.1%
High	18	19.8%
Total	91	100%

The frequency of satisfaction level by gender and job

As shown in Table IV, low satisfaction was indicated by one male (1.9%), moderate satisfaction was experienced by similar proportions of males and females (about 79%). High satisfaction level was slightly experienced in females (approximately 21%) compared with males (approximately 19%). Satisfaction by job was low in one nurse (1.9%). Moderate satisfaction was the highest among laboratory technicians (100%), followed by pharmacists (83%), then physicians (80%), and nurses (75%).

Table IV: The frequency of satisfaction level by gender and job

Variable	Satisfaction level					
	Low		Moderate		High	
	N	*%*	*N*	*%*	*N*	*%*
Gender:						
Male	1	1.9%	41	78.8%	10	19.2%
Female	0	0%	31	79.5%	8	20.5%
Job:						
Physicians	0	0%	21	80.8%	5	19.2%
Nurses	1	1.9%	41	75.9%	12	22.2%
Pharmacists	0	0%	5	83.3%	1	16.7%
Lab technicians	0	0%	5	100%	0	0%

The frequency of burnout level by gender and job

As seen in Table V, low burnout level was reported by 7 males (13.5%) and 5 females (12.5%). Moderate level of burnout was experienced by about 83% of males and 87% of females. High level of burnout was reported by 2 males (3.8%). According to job nature, low level of burnout was experienced by approximately15% of physicians, 9% of nurses, 33% of pharmacists, and 20% of laboratory technicians. Moderate levels of burnout were experienced by about 85% of physicians, 87% of nurses, about 67% of pharmacists, and 80% of laboratory technicians. High burnout levels were experienced by about 4% of nurses.

Table V: The frequency of burnout level by gender and job

Variable	Burnout level					
	Low		Moderate		High	
	N	%	N	%	N	%
Gender:						
Male	7	13.5%	43	82.7%	2	3.8%
Female	5	12.8%	34	87.2%	0	0%
Job:						
Physicians	4	15.4%	22	84.6%	0	0%
Nurses	5	9.3%	47	87%	2	3.7%
Pharmacists	2	33.3%	4	66.7%	0	0%
Lab technicians	1	20%	4	80%	0	0%

The frequency of secondary trauma stress level by gender and job

Table VI showed the levels of secondary trauma stress as low stress level by approximately 21% of males and approximately 13% of females. Moderate secondary trauma levels were experienced by approximately 79% of males and approximately 85% of females. High secondary stress levels were experienced by approximately 3% of females. Approximately 23% of physicians had low secondary trauma stress, 135 of nurses, approximately 33% of pharmacists, and 20% of laboratory technicians. Moderate levels of secondary trauma stress were experienced by approximately 77% of physicians, approximately 85% of nurses, approximately 67% of pharmacists, and 80% of laboratory technicians. High level of secondary traumatic stress was experienced by approximately 2% of nurses.

Table VI: The frequency of secondary trauma stress level by gender and job

Variable	Secondary trauma stress level					
	Low		Moderate		High	
	N	%	N	%	N	%
Gender:						
Male	11	21.2%	41	78.8%	0	0%
Female	5	12.8%	33	84.6%	1	2.6%
Job:						
Physicians	**6**	23.1%	20	76.9%	0	0%
Nurses	7	13%	46	85.2%	1	1.9%
Pharmacists	2	33.3%	4	66.7%	0	0%
Lab technicians	1	%20	4	%80	0	%0

DISCUSSION

To the best knowledge of the authors, the present study may be the first in Jordan to examine compassion satisfaction among HCWs in the Royal Medical Services in Jordan.

Compassion satisfaction explores the potential pleasure resulting from being capable of completing one's work. A positive feeling resulting from helping others at work is one example of this emotion, and it also involves developing positive feelings towards colleagues, workplace, and community. High scores according to the scale used in the study indicate a high level of satisfaction stemming from the ability to be a good caregiver as demonstrated by one's job performance. Low scores indicate problems with the job (22).

The results of this study showed that the majority of participants had developed moderate compassion satisfaction, i.e., the participants had perceived some negative impacts of COVID-19. This is not surprising because the pandemic has induced changes in workplaces and employment duties (e.g., high-pressure work, safeness of work spaces, and high-tech communications). This finding confirms the results of other studies in which emergency conditions were reported to impact the quality of life of healthcare workers (6-8). Nonetheless, about 20% of the study participants reported a high level of satisfaction. It is highly plausible to relate this finding to variations of perceptions among the participants. However, it should be noted that the COVID-19 pandemic was relatively under control when this study was conducted. However, the literature showed that medical staff treating COVID-19 patients expressed great levels of stress and anxiety (21, 22). Another study suggested that those healthcare workers who reported tenderness towards stress, anxiety, and depression to be considered as a high-risk group for maladjustment (23).

Burnout measures showed that low and moderate levels exist among males and females in almost similar proportions. High levels of burnout exist only among males. Among health workers, various professionals have experienced similar levels of burnout, particularly low and intermediate levels during the pandemic COVID-19. This is in agreement with a recent study in India that reported increasing rates of burnout among healthcare workers in the current pandemic (29).

Secondary trauma stress levels (low and moderate) were experienced by different healthcare workers, which is due to daily work with patients with COVID-19. These findings agree with recent studies that reported similar findings in which secondary trauma stress levels were increasing due to direct contact with COVID-19 patients and exposure to suffering of patient's death (30, 31).

CONCLUSION

The present study showed that about 79% of participants had a moderate level of compassion satisfaction and that about 21% had a high satisfaction level. Burnout and secondary trauma stress were experienced by healthcare workers in the pandemic COVID-19.

RECOMMENDATIONS

The present study recommends conducting further studies with a larger study sample, particularly in conditions with advanced health conditions resulting from the uncontrolled spread of COVID-19.

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