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EMOTIONAL EXHAUSTION AND QUALITY OF LIFE AMONG RESCUE WORKERS: MODERATING ROLE OF SOCIAL SUPPORT

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ABSTRACT

Objective: To determine the moderating role of social support in determining the relationship between emotional exhaustion and the quality of life among rescue workers.

Methodology: Correlational research was conducted. Purposive sample of 170 rescue workers as calculated by as calculated by G power formula. The age range of the sample was 22-46 years ($M = 31.7$, $SD = 5.05$). The data were collected from rescue offices of three districts of Punjab including Layyah Bhakkar, Jhung and one district Dera Ismail Khan of Khyber Pakhtunkhwa using demographic information sheet and related assessment measures. Data were analyzed using SPSS-26. Pearson product moment correlation and moderation through multiple hierarchical regression analyses to test the hypotheses.

Results: Emotional exhaustion found to be positively related to secondary traumatic stress ($r = 0.24$, $p < 0.01$) and burnout ($r = 0.21$, $p < 0.01$) subscales of quality of life in rescue workers. It was also found that social support showed negative relationship with secondary traumatic stress ($r = -0.22$, $p < 0.01$) and burnout ($r = -0.36$, $p < 0.01$), while positive relationship with compassion satisfaction ($r = 0.22$, $p < 0.01$). Further, emotional exhaustion positively ($\beta = .22$, $p < .01$) and family support negatively ($\beta = -.21$, $p < .01$) predicted the burnout and secondary traumatic stress. The results showed significant interaction effect of family support and emotional exhaustion ($\beta = -.97$, $p < .05$) in predicting secondary traumatic stress in rescue workers.

Conclusion: It is concluded that emotional exhaustion has an adverse effect on the quality of life of rescue workers, and this influence can be moderated and improved through the presence of social support.

Keywords: Emotional Exhaustion; Social Support; Compassion Fatigue; Secondary Traumatic Stress; Burnout; Quality of Life; Rescue Workers.

INTRODUCTION

Rescue 1122 emergency service department, the largest institution to facilitate the people on humanitarian grounds, established in 2005 working efficiently to provide emergency services in Pakistan. Since its outset, the institution has saved about 9.6 million victims' lives with the seven-minute time span in providing excellent services.¹ Due to apparent political as well as economic crisis, this institution is under stress and facing lack of funds as well as facilities causing serious pressure on its workers. Resultantly, it has made Pakistani Rescue Workers a vital area of research and attention.

Rescue workers are confronted with situations, for example the disaster (Corona virus), flood, terrorism, and the cases related to fatal injuries/diseases. So, problems related to emotional exhaustion exist among

rescue workers. Emotional exhaustion is the central quality of burnout caused by depletion of one's emotional resources.² It also refers to negative effects in the form of reduced job satisfaction, decreased productivity, higher rates of absenteeism, increased employee turnover, and can also have adverse effects on physical health.³ So, emotional exhaustion causes several negative work-related outcomes either physiologically or psychosocially. So, when a rescue worker is involved in burnout situation, it causes emotional exhaustion, negative job outcome, malingering, low morale, sleeplessness and increase in usage of toxicants, marital and family problems. Therefore, the staff must in need of selfless care such as social support.⁴

Social support is a vital source of employees in managing the presence of stress.⁵ Workers having social as well as organizational support can perform their duties well and efficiently whether at home or in

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the organization.⁶ People enjoying the favor of family members can combat with any adversity well.⁷ Moreover, cooperative family members help the recipients to concentrate on the task concerned and applaud them and it leads to perfection of their profession. Individual's household burden lessens, and they have ample time to focus on their professions and jobs, hence can improve their quality of life.⁸

Quality of Life is perceived through social living standards according to their goals and expectations'.⁹ Quality of life is not confined to capacity of doing work, condition of mind and elongation, but encircles the personal life, liberty to choose, emotional betterment and preservation of esteem.¹⁰ The quality of life depends on the level of satisfaction in society according to one's own feelings.¹¹ Stamm described three distinct domains of quality of life: burnout, secondary traumatic stress, and compassion satisfaction. Burnout is characterized by feelings of despair and challenges in coping with work-related issues, often stemming from excessive workloads or unsupportive work environments. Secondary traumatic stress in healthcare workers involves experiencing the emotional toll of exposure to extremely traumatic events through their work with others.

Conversely, compassion satisfaction characterized by the feeling of contentment that comes from effectively aiding and supporting others. A high level of compassion satisfaction, coupled with low levels of burnout and secondary traumatic stress, indicates an individual's elevated quality of life.¹² There are several factors such as work pressure, concerns related to the epidemic, and family-related worries can significantly impact the quality of life of health care professionals,¹³ furthermore an imbalance between work and personal life can also be a significant factor affecting their quality of life.¹⁴

From the literature, it is to conclude that social support increases their performance under tough situations.¹⁵ Daily aggravations and other factors with less social support hamper health by maximizing stress.¹⁶ Reduced social support can negatively influence the job performance in health care workers.¹⁷ Further job pressure and work overload can produce emotional exhaustion in paramedical staff leading to job dissatisfaction,¹⁸⁻¹⁹ poor quality of life,²⁰ and turnover intentions.²¹ Considering the above context, the current study investigates the relationships among emotional exhaustion, social support, and quality of life within the population of rescue workers. Additionally, the study intends to evaluate whether social support moderates the relationship between emotional exhaustion and quality of life among these professionals.

Based on above discussion, the following hypotheses were formulated: Emotional exhaustion will likely to be negatively, and social support positively related with quality of life among rescue workers. Social support will moderate the relationship between emotional exhaustion and quality of life among rescue workers.

METHODOLOGY

This correlational research was conducted at the Department of Applied Psychology, University of Management and Technology from December 2020 to November 2021. After approval from Ethical Review Committee, 170 rescue workers (as calculated by G power formula²² ($N > 50 + 8m$, m denotes the number of predictors in the model, so sample (N) is greater than $50 + 8 \times 8 = 114$ participants) were recruited from rescue offices of three districts of Punjab including Layyah, Bhakkar, and Jhung and one district Dera Ismail Khan of Khyber Pakhtunkhawa. The age range of the sample was 22-46 years ($M = 31.7$, $SD = 5.05$). The purposive sampling strategy was used

in the present study. Those rescue workers who were directly dealing with covid-19 patients and other fatal diseases were included in the present study, while the administration officers of Rescue 1122 were excluded. The data were collected using the following assessment measures:

The demographic information including age, education, designation, scale, marital status, number of children (if any), number of siblings, birth order, family system, number of dependents, family monthly income, duty hours, duration of job and history of any psychological and physical problem were taken along with other study measures.

Emotional Exhaustion scale⁴ was used to measure emotional exhaustion of rescue workers. It is comprised of 9 items rated on a 5-point Likert scale (0 = not at all, 1 = a little bit, 2 = moderately, 3 = Quite a bit, and 4 = extremely). A high score indicates high emotional exhaustion and vice versa. This scale has the reliability of $\alpha = .67$.

The multidimensional scale of perceived social support Scale²³ was used to measure the social support of rescue workers. It consists of 12 items with 7-point Likert scale (1=Very Strongly Disagree, to 7= very strongly agree). This scale is further subdivided into three subscales including Family, Friends, and Significant Other. High scores mean high social support and low score mean low quality of life.

Professional Quality of Life Scale¹² was used to measure the quality of life of rescue workers. It consists of 30 items on a 5-point Likert scale (1= Never, 2= rarely, 3= sometimes, 4= Often, 5= very Often). This scale has three subscales including compassion satisfaction, burnout, and secondary traumatic stress. All the items sum up to give the scores of each subscale. High score indicates high scores in the specific subscale.

All the ethical guidelines were followed during data collection. First, formal permission of the authors for usage of scales was taken. Second, volunteer participation of all the participants who met the required criteria was ensured. A formal consent form was taken from each participant before filling out the questionnaire; they were briefed about the nature and purpose of the study. Further, they were also informed of their right to withdraw from the research at any time. They were also assured of the confidentiality of the information taken from them. Lastly, the results were honestly represented by the research.

After data collection, data were analyzed using SPSS-26 version. After screening the data, reliability analyses were run on all the scales to find out reliability of the data. The Pearson product moment correlation analysis was run to test hypothesis of relationship. Furthermore, moderation through multiple hierarchical regression analysis was run to see test the moderating role of social support. Results were considered significant at $p < 0.05$ level.

RESULTS

The sociodemographic characteristics of the participants indicated the average age of the participants as 31.7+ 5.05 years and education as 13.7 years. Most of the rescue workers ($n = 117$, 66%) were unmarried and 26% ($n = 47$) were married. Further, 50.6% ($n = 86$) had no. of siblings above 5, and the majority ($n = 96$, 54.9%) were middle born, while 23.4% ($n = 41$) were first born. It was also reported that 80% ($n = 114$) belonged to a joint family system with 78.8% ($n = 134$) had 7 and below no. of dependents. The average income was reported as 36799.72 rupees with an average duty time of 7.82 hours and 6.36 years job duration as rescue worker.

The results of reliability analyses in table

1 showed satisfactory reliability of all the scales used ranging from .67 to .91. So, this indicated that all the scales have sufficient reliability to carry out further analyses (Table 1).

Table 2 showed that emotional exhaustion is positively related to burnout ($r = 0.21$, $p < 0.01$) and secondary traumatic stress ($r = 0.24$, $p < 0.01$) subscales of quality of life in rescue workers indicating that higher emotional exhaustion is linked with higher burnout as well as higher secondary traumatic stress. It is also found that social support showed positive relationship with compassion satisfaction ($r = 0.22$, $p < 0.01$) indicating that high social support is linked with higher compassion satisfaction in rescue workers. However social support is negatively related to burnout ($r = -0.36$, $p < 0.01$) and secondary traumatic stress ($r = -0.22$, $p < 0.01$) indicating that high social support is linked with lower burnout as well as lower secondary traumatic stress in rescue workers. The subscales of social support and quality of life also showed the same trend of relationships. Furthermore, compassion satisfaction showed negative relationship with burnout ($r = -0.66$, $p < 0.01$) highlighting that higher compassion satisfaction is linked with lower burnout in rescue workers. Further, burnout positively related to secondary traumatic stress ($r = 0.52$, $p < 0.01$) indicating that high burnout is linked with high secondary traumatic stress. Further, emotional exhaustion did not show any relationship with social support.

Table 3 showed that the overall variance (R^2) explained by model of compassion Satisfaction aspect of quality of life was 20% [$F(11,157) = 3.62$, $p < .001$]. There is non-significant interaction between any of the domains of social support and emotional exhaustion in Rescue workers. Results also showed that emotional exhaustion and social support (Significance other, Family, Friends) did not predict compassion satis-

faction. However, number of dependence ($\beta = -.18$, $p < .05$) and duration of job ($\beta = -.33$, $p < .001$) negatively predicted the compassion satisfaction among rescue 1122 workers. The overall variance (R^2) explained by the model burnout was 31% [$F(11,157) = 6.37$, $p < .001$]. The results showed not significance interaction effect between any of the domains of social support and emotional exhaustion in rescue workers. Further, emotional exhaustion positively ($\beta = .22$, $p < .01$) and the family support negatively ($\beta = -.21$, $p < .01$) predicted the burnout in rescue workers. However, number of dependence ($\beta = .18$, $p < .05$) and duration of job ($\beta = .21$, $p < .01$) positively predicting the burnout among rescue workers. The overall variance (R^2) explained by the model of secondary traumatic stress of quality of life was 17% [$F(11,157) = 2.82$, $p < .01$]. The results showed significant interaction effect of family support and emotional exhaustion ($\beta = -.97$, $p < .05$) in predicting secondary traumatic stress in rescue workers. Further, emotional exhaustion positively predicted secondary traumatic stress ($\beta = .24$, $p < .01$) among rescue workers.

DISCUSSION

The findings of the present study highlighted that emotional exhaustion positively related with burnout and secondary traumatic stress domains of quality of life. These findings align with the research conducted by Yuanlaie²⁴ which explored emotional exhaustion and its impact on job performance in a sample of 460 employees. Yuanlaie's study demonstrated that emotional exhaustion among employees had an adverse influence on both job satisfaction and organizational commitment. In another study conducted by Kwong²⁵ it was demonstrated that elevated perceived stress correlated with increased secondary trauma, burnout, job-related health issues, and decreased compassion satisfaction. Furthermore, work-related issues and stressors were

Table 1: Psychometric Properties of the Scales and Subscales

Measures	K	M	SD	Ranges	α
Emotion Exhaustion Scale	9	12.18	5.24	0-28	.67
MSPSS	12	29.500	12.08	12-67	.91
Family	4	9.20	4.44	4-24	.81
Friends	4	9.99	4.21	4-23	.81
Significant others	4	10.30	5.07	4-24	.85
ProQOL	30	100.81	13.91	68-146	.69
Compassion Satisfaction	10	41.39	8.16	19-50	.64
Burnout	10	32.45	5.02	10-34	.43
Secondary Traumatic Stress	10	26.95	7.67	13-46	.74

Note. ProQOL = Professional Quality of Life Scale; MSPSS = Multidimensional Scale of Perceived Social Support

Table 2: Relationship between Emotional Exhaustion, Social Support and Quality of Life among Rescue Workers (n=170)

Variable	1	2	3	4	5	6	7	8
1. Emotional Exhaustion	-	-.06	.05	.09	.02	-.06	.21**	.24**
2. Social Support		-	.87**	.90**	.87**	.22**	-.36**	-.22**
3. Significance other			-	.66**	.60**	.14	-.24**	-.14
4. Family				-	.71**	.19*	-.36**	-.22**
5. Friends					-	.26**	-.35**	-.23**
6. Compassion Satisfaction						-	-.66**	-.14
7. Burnout							-	.52**
8. Secondary Traumatic Stress								-

*p< .05. **p< .01. ***p< .001.

Table 3: Moderation through Multiple Hierarchical Regression Analyses Showing Interaction Effect of Social Support and Emotional Exhaustion in predicting Quality of Life

Predictors	Quality of Life					
	Compassion Satisfaction		Burnout		Secondary Traumatic Stress	
	ΔR ²	β	ΔR ²	β	ΔR ²	β
Step 1	.14	-	.09	-	.02	-
(Control Variables)	-	-	-	-	-	-
Family monthly income (Rs.)	-	.12	-	-.01	-	.09
No. of Dependence	-	-.18*	-	.18*	-	.10
Duty hours	-	-.02	-	.14	-	.00
Duration of Job (in years)	-	-.33***	-	.21**	-	.01
Step 2	.00	-	.05	-	.06	-
Emotional Exhaustion	-	-.06	-	.22**	-	.24**
Step 3	.06	-	.13	-	.06	-
Significance Other	-	.08	-	-.00	-	-.04
Family	-	.06	-	-.21*	-	-.12
Friends	-	.14	-	-.18	-	-.17
Step 4	.00	-	.04	-	.03	-
Significance-other x Emotional Exhaustion	-	-.12	-	.54	-	.40
Family x Emotional Exhaustion	-	.09	-	-.61	-	-.97*
Friends x Emotional Exhaustion	-	-.13	-	-.41	-	.36
R ²	.20	-	.31	-	.17	-
F (11,157)	3.62***		6.37***		2.82**	

*p< .05. **p< .01. ***p< .001.

recognized as strong predictors of burnout and other mental health issues among social workers. These findings further corroborate our results, emphasizing that emotional exhaustion is a positive predictor of secondary traumatic stress as well as burnout in rescue workers.

The current findings also highlighted that social support has a positive relationship with compassion satisfaction and negative relationship with burnout and secondary traumatic stress in rescue workers. These findings align with the research conducted by Galek et al.²⁶ which similarly underscored that social support, including both supervisory and family support, exhibited negative associations with burnout and secondary traumatic stress among professionals. Additionally, Li et al.²⁷ also put forth the idea that social support has a negative relationship with burnout and secondary traumatic stress among healthcare workers. Similar results were discovered in a study involving 861 nurses in China who were providing support in the battle against COVID-19 in Wuhan. Their results underscored the significant positive impact of social support in predicting mental well-being of nurses.²⁸

Another study conducted by Ruisoto investigated the influence of social support on healthcare professionals experiencing burnout. The results of this study indicated a negative relationship between social support and burnout among health professionals.²⁹ Further supporting the conclusion that social support, particularly from family and significant ones, serves as a negative predictor of burnout and secondary traumatic stress in rescue workers.

The current findings also highlighted that compassion satisfaction has a negative relationship with burnout and burnout has positive relationship with secondary traumatic stress in rescue workers. These findings align with previous research conducted by

Sodeke-Gregson et al. and Bahari et al., who similarly discovered that compassion satisfaction was inversely related with burnout as well as secondary traumatic stress in healthcare workers, while burnout was positively linked to secondary traumatic stress in this population.³⁰⁻³¹ Further, in the present study increased no. of dependents and job experience were positive predictors of burnout as well as secondary traumatic stress among rescue workers. These results align with previous research indicating that greater work experience tends to be linked with higher levels of burnout and secondary traumatic stress among healthcare professionals.^{30,32}

The second major goal of the present study was to assess the moderating role of social support in relationship between the emotional exhaustion and quality of life among rescue workers and the results underscored that family support moderated the relationship between emotional exhaustion and secondary traumatic stress among Rescue 1122 workers. The findings go in line with the findings of a study³³ that social support as negative predictor of post-traumatic stress symptoms. Another study has corroborated these findings by demonstrating that social support acts as a moderator in relationship between negative life events and depression among adolescents.³⁴ In another study it was found that people who acquired more significant levels of social help, may have more sure wellbeing status, physical and mental personal satisfaction, and prosperity.³⁵ So, the effect of social support as moderator is confirmed.

The present study has the following limitations. This study predominantly centers on the emergency staff of Rescue 1122 workers who have direct exposure to patients with fatal injuries. For future research, it is recommended to include administrative officers in the study to explore the same variables. The present study considered the rescue workers of Punjab and KPK, for future other localities

of Pakistan should be considered to rule out various factors related to geographical differences. This study makes a significant contribution to the field of Emergency Services by shedding light on the factors associated with emotional exhaustion and quality of life among rescue workers. It also provides valuable insights into the positive effect of social support on the quality of life of these professionals. The findings from this research can be used to develop strategies aimed at enhancing the overall quality of life for rescue workers.

CONCLUSION

The current study's findings suggest that emotional exhaustion among rescue workers has a detrimental impact on their quality of life. This is evidenced by lower levels of compassion satisfaction and higher instances of burnout and secondary traumatic stress. Additionally, social support appears to act as a moderating factor in influencing the connection between emotional exhaustion and quality of life.

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Author's Contribution

FS and SA, conceived the idea, designed the study and collected the data. and performed data analysis and write up of the manuscript. Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Conflict of Interest

Authors declared no conflict of interest

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None

Data Sharing Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.