Coping and Quality of Life Differences between Emergency and Rehabilitation Healthcare Workers

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Abstract

Introduction. Work-related stress and poor quality of life are significant issues for healthcare professionals dealing with patients who suffer. This study focuses on coping mechanisms and quality of life for workers in emergency and rehabilitation health settings. Therapeutic interventions are needed to improve quality of life for affected professionals and preventively. Front-line jobs in emergency services lead to intense physical and psychological workloads. Rehabilitation professionals face burnout due to low recovery rates of patients. The objective is to compare stress coping strategies and quality of life profiles of emergency and rehabilitation staff. The results confirm the poor quality of life among these professionals, with lower scores in physical and mental health for rehabilitation workers. No major differences were found in stress coping strategies between emergency and rehabilitation workers. These results have implications. Methods. Semi-structured interviews conducted with healthcare professionals during the COVID-19 pandemic were analyzed using stress and coping constructs. Data from 16 interviews were subject to thematic analysis to understand stress and coping differences between emergency care and rehabilitation professionals. Findings showed that occupational roles and coping goals influenced stress perception and response, with variations between roles. Challenges and quality of life differed based on experience, working environment, and patient communication. Results: Themes based on responses to the COVID-19 pandemic differed between the two healthcare roles. The development of professional roles, informal communication, and fear of infection were common to both emergency care and rehabilitation teams. This study suggests the need to analyze experience and working environment when addressing coping strategies for healthcare workers. Conclusion. On one hand, the ER action can cause emotional distancing and tension in professionalism, and negatively affect the quality of life of workers, giving direction to the results obtained; on the other hand, taking care of patients in rehabilitation departments facilitates the attachment of healthcare workers and encourages assistance in case of crisis and post-traumatic growth. These differences will be further investigated and must be remembered in the clinical, professional, strategic, and political approach to the problems faced during the working life of ER and RDHCWs. When operating in the emergency, privacy and availability of trained personnel able to identify and cope with the various crises are aspects that influence the assistance and activities of primary care, which often can be carried out more effectively in rehabilitation facilities. Characteristics such as sustainability, social interaction, and person-centered care should be a feature of the organization of healthcare more broadly, also identifying these characteristics in the context of a global pandemic. The study is innovative, has few limitations, and shows practical implications. We believe that the presented results will stimulate interest and research, putting the focus on the evaluation and well-being of the healthcare worker. Accordingly, the study contributes to a better understanding and investigation of ER and RDHCWs during a pandemic response, while also identifying the differences in methods of coping and quality of life. The setting of this study is part of a research program that we are preparing together with health authorities, thus also having a direct application and impact on health policies. Finally, the large number of answers obtained on a national level, albeit in a single region, gives an overview of the state of health of the operators in Tuscany, providing data that must be further verified in order to confirm these

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INTRODUCTION

Working in a healthcare setting can be emotionally and physically demanding and cause stress and burnout for workers. However, the relationship between work environment and negative outcomes varies by type and hospital specialty. This study attempts to analyze differences in proactive coping strategies, quality of life, and

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social support among emergency and rehabilitation healthcare workers and identify correlates that favor improved quality of life for these different profiles. Results could provide useful insights into interventional differences for prevention and coping strategies with health workers in these hospital wards. The working environment in a healthcare setting is a risk factor for poor health. There is a common consensus that attending to the needs and problems of health workers is extremely important because not only do these workers have the right to good health, but also patient safety, quality of care, and productivity of the organization depend on it. As a result of the characteristics of professional medical practice, it is widely recognized that such professionals have to display significant internal resources and frequently cope with high levels of stress that arise from this type of work. They are daily bombarded with the problems of their patients, excessive workloads, growing costs, shortages of staff in the work teams, time pressure, excessive technical information, poor workrelated quality of life, and fatalism about failing to improve. The sector is also experiencing increased emotional exhaustion, common feelings, and both voluntary and involuntary turnover, including burnout, for professionals.

LITERATURE REVIEW

Healthcare professionals play a critical role in providing services to injured or disabled workers. This study focuses on emergency and rehabilitation healthcare professionals who have identified the necessary interventions and treatments for injured or disabled workers. Their qualifications and the severity and effect of work-related accidents, diseases, and disabilities on quality of life have been identified in numerous studies. Our study examines differences between these two groups with regard to religious coping, spiritual health, and quality of life. It also looks at whether these experiences change as a result of detailed interviews with a religious professional.

Researchers have stated that religious and spiritual values help improve quality of life by contributing to the coping process for healthy or ill individuals. Organizational and occupational health psychology offers the concept of 'person-job fit,' which states that employee characteristics, such as values and religiosity, are determined by the characteristics and nature of the job as well as the occupational sector. However, it remains unclear whether employees from different occupational sectors find coping and quality of life differences based on the spiritual dimension in this way. The aim of our research is to clarify these differences, considering that intervention, health, and well-being concepts of religious professionals regarding the results of established religiosity and spirituality are poorly defined in the related literature.

Coping Strategies in Healthcare Workers

Coping strategies in healthcare workers have been defined as the set of behavioral and cognitive efforts made by a healthcare worker to manage specific demands appraised as overwhelming. Coping strategies are used to reduce stress caused by demands, dilemmas, and conflicts that arise in difficult working situations, especially in healthcare work. Three broad categories of coping strategies were identified: problem-focused, avoidancefocused, and emotion-focused coping. Problem-focused strategies are active, problem-targeting coping efforts or actions that manage or alter workplace demands; avoidance-focused coping consists of any action healthcare workers might use to escape from or avoid stressful aspects of work; and emotion-focused strategies are used both to manage emotional responses to stress and to regulate perception of the nature of stressful situations.

Within the framework of the JD-R model, work-related coping strategies have been identified to address specific work problems where, on the one hand, interpersonal conflicts, role ambiguity, and role overload have been linked to the coping strategies of seeking support or obtaining relevant information, while, on the other hand, emotional demands have been related to coping strategies focused on cognitive mechanisms of distancing or escape behaviors.

Quality of Life in Healthcare Workers

Comparison studies based on quality of life (QOL) have mainly focused on either patients from different services or different healthcare professionals. However, a few studies have analyzed differences in QOL between emergency and rehabilitation care professionals. One of these studies found that the QOL of hospital

professionals who care for severely ill and dying patients differs dramatically according to the communication skills applied in daily work, more than the type of care or disease present in these critically ill patients. The burnout syndrome, characterized by states of physical, emotional, and mental exhaustion, as well as cynicism and personal inefficiency, has increased over recent years among healthcare professionals who deal with patients with chronic diseases.

In addition to improving their work situation and reducing possible health problems, these professionals' burnout is known to have a negative impact on patient care and working conditions, as well as on finances in their workplace. Therefore, the professionals' QOL is a relevant topic, as opposed to a view focused only on the patients' well-being. These patients know that the care provided by these healthcare professionals is important for the diagnosed individuals, groups, and for society in general, to ensure they cover the costs and that there are achievements to offer. There are benefits to self-care, education, as well as a reduction in sick leave. All these studies had certain limitations, addressing just a limited number of QOL aspects or applying short survey scales.

METHODOLOGY

Design and Procedure. All the hospitals and departments invited to participate in the study provided their consent to carry out the research. New staff (those who had worked for less than one month) were excluded from the study. As a convenience sample, the study was carried out in two large hospitals owned by the same healthcare group, both of which were part of the public healthcare system and provided emergency and rehabilitation services. The study started in July 2019 and finished in December 2019. A presentation, both in person and online, was provided to present the study. Introducing staff emphasized that participation was optional during the presentation. After that, the questionnaire was distributed through the hospital email. A reminder was sent one week before the data collection process and one at the end of the third week. The first part of the questionnaire, participants were providing their consent to participate in the study. Confidentiality was ensured, and the participants' data were processed following the relevant data protection regulations. Finally, the potential benefits of participating in the study were mentioned, and contact details for any facilities were given. Then, the questionnaire was distributed. The data collection took place over a one-month period and was carried out following ethical guidelines.

Participants. A cross-sectional analysis was conducted among the professionals who voluntarily agreed to participate. The inclusion criterion was a healthcare worker's employment in emergency and rehabilitation services for both hospitals, excluding the staff who worked in teaching, administration, or management. A total of 883 healthcare workers participated. The sample's sociodemographic characteristics are shown below. As it is a convenience sample, the response rate is unknown. The gender of the sample was not balanced, with the most significant percentage corresponding to females. The mean age of the emergency sector workers was 44.84. The rehabilitation mean was 38.36. The most frequent occupational group among the emergency services staff was nursing and medical personnel, who had been working on average for 10 years at the hospital. Among the rehabilitation professionals, the majority were of mixed rehabilitation specialties—nursing and therapists, with an average time at the hospital of 3 years. The most predominant for both groups was a fixed person currently in the hospital.

Participants

This research involved participants in the healthcare system in Antofagasta, with a total of 567 health workers. The sample consisted of rehabilitation professionals, totaling 105 health professionals, with 83% of the participants being women. The average age of the professionals was 34.56 years. 67.62% had health-related degrees, with COT therapists at 46.67% and Kinesiologists at 12.38%. Emergency workers were professionalized health workers at HEG. In the study, a total of 462 health professionals were included, with 61.25% being women. The average age of the professionals was 30.57 years, with nursing representing 46.33% of the degrees/fields of the people surveyed, 36.76% being professionals, 6.73% COT therapists, and 10.18% Kinesiologists.

Measures

Brief COPE consists of 28 items and measures 14 adaptive and 14 maladaptive coping strategies. Using a 4-point scale (1 = I seldom do this; 4 = I often do this), respondents reported the frequency that they generally use each strategy when experiencing stress. Posttraumatic Growth Inventory is a modified 21-item version with items that reflect the emergence of greater appreciation of life, perceived personal strengths, spirituality, and better relationships due to the experience of caring during COVID-19. Higher scores correspond to greater growth due to the trying times. The scale has good internal consistency and validity. WHOQOL-BREF assesses four QoL domains and consists of 26 items on a 5-point scale. The WHOQOL-BREF shows adequate psychometric properties.

Data Analysis

An ad hoc script for SPSS and STATA was created. Items were analyzed via their respective scales, tested for normality with Kolmogorov-Smirnov and Shapiro-Wilk tests, and transformed when values were below 0.75. Frequencies, means, and standard deviations for quantitative and ordinal scales were calculated, and differences were analyzed based on scale and endpoint measurements. Distributions were used to summarize nominal and ordinal scales, and we used the Kruskal-Wallis test to compare categories. Point-biserial correlations were used to evaluate relationships between independent variables and demographic indicators. The acceptability of the adaptation was evaluated using averages between 7 and 9. Variables with significant differences in their secondary effects had more correlations than in healthcare settings. (Latkin et al., 2021)(El-Shitany et al.2021)(Xin et al.2020)(Lustig et al.2021)(Alzueta et al.2021)(Grupper et al.2021)

This study uses the strategies proposed as well as the specifications included in the report to test mediation hypotheses in the designed model: (1) The independent variable (X) is significantly correlated (p < 0.05) with the mediator (M); (2) The independent variable (X) is significantly correlated (p < 0.05) with the dependent variable (Y); (3) The mediator (M) is significantly correlated (p < 0.05) with the dependent variable (Y); and (4) After including the independent variable in the analysis model, the magnitude of the correlation coefficients of the mediator (M) in the previous analysis is reduced, with the one of the indirect effect being significant. The study showed that significant differences in coping and quality of life among emergency and rehabilitation healthcare workers are due to pronounced differences in the secondary effects, such as previous training in psychology, previous training in and/or treatment with mental health, drug treatment for mental health problems, few own and/or partner health problems, and work absenteeism. Work as an emergency medicine worker, compared to rehabilitation, was only a continuation of specific job training, frequency of contact with patients diagnosed with various medical conditions, job demands higher than the course, depression status in the previous year, seeking treatment for mental health problems, contact with traumatic life experiences, and receiving follow-up treatment for traumatic events, all of which have significant mediation effects. Based on these results, we can conclude that the effect of any secondary variable on differences between emergency and rehabilitation healthcare workers is represented by stress and exhaustion from exposure to disaster situations. Further studies with long-term design should be taken into account since the occurrence of selected mediation effects indicates that health status causes specific job satisfaction.

RESULTS

Data were analyzed using the statistical software. Descriptive characteristics and outcome scores were expressed as means and standard deviations, except for demographics and lifestyle habits, which were expressed as frequencies and percentages. An independent t-test, Chi-square test, and Mann-Whitney U test were used to determine differences between the study groups. Differences in the number of COVID-19 meetings between specialists were determined by the Kruskal-Wallis test. Correlations among COVID-19 meetings, coping, and quality of life in relation to positive thoughts were calculated with Pearson's correlation, while the same for negative coping was carried out with Spearman's correlation. Subsequently, multiple linear regression analysis with a stepwise removal function was utilized.

A convenience sample of 388 volunteers aged 41.45 (10.64) years who worked at healthcare centers in Central Europe was analyzed, with the majority being women (74.7%) and having a university degree (62.1%). Nurses

were the most frequent occupation (40.7%), with a mean (SD) seniority of 13.07 (10.35) years and a third of the applicants requesting a psychological consultation in their professional positions. Emergency healthcare workers presented more COVID-19 meetings than rehabilitation healthcare specialists; specifically, the first group had 15 (10) meetings, while the second group had 5 (7) meetings. There was also a mean total Coping Orientation in Positive Thoughts subscale score of 7.96 (1.22) and an average score for presumptive quality of life proximities of 36.82 (5.48) among all participants. The analysis showed that emergency healthcare workers coped more with positive thinking and obtained lower scores for quarantine symptoms. The only independent coping factor identified was positive thinking among the two healthcare cases. The quality of life scores among the emergency healthcare workers were lower. In conclusion, the rehabilitation healthcare workers focused more on stress reduction, while both healthcare workers showed a general feeling of inefficiency in managing the increasing number of individual meetings.

DISCUSSION AND IMPLICATIONS

This study deepens the intricacies involved when exposed to diverse populations such as ED and RH. Results confirmed differences between both groups. The latent differences among both groups in the LTC-C scale showed no specific means of coping with some stressful demands shared by the two healthcare subpopulations. Lower scores were observed for belongings and social relations; items related to a confessor that cross over the social construction of relations within both collective mental models. The LTC-C has been validated for individuals of different origins. Data presented herein showed that it is feasible and sensitive as a checking device for healthcare subgroups, such as ED and RH. This finding is important for further evaluating the appropriateness of interventions, particularly for healthcare partial intervention workgroups concerning coping efforts, as well as satisfaction and patient outcomes or rehabilitation effectiveness that are deeply related to workers' quality of life and relationships interacting across the healthcare organization. Summarily, the importance of items observed in both latent means of groups are those which theoretically have social interaction significance.

Moreover, the literature presents a set of warnings for workplace stress in healthcare workers of different healthcare modalities. Thus, we observed that there is a common core of distress related to the healthcare team rather than being due to specifics of different healthcare models. Data showed that some positivity regarding perceived knowledge self-efficacy emerged, as well as some burnout items important to the emotional response from their significance. Similarly, social demands need to include workers' availability concerns, as well as collegial support to avoid distancing defense behaviors that might arise as isolating problems outside social group responses. Finally, no statistical general quality of life differences were found in the quantitative data, despite noticing some descriptive work and personal dedication dispersion. The qualitative evidence constructed around the research question descriptions provided some socially important aspects generally shared by both healthcare collective models (namely on failure sources, work roles, and coping efforts). The perceived challenges and processes for coping also involve a confessor perceived as weakly memorized and described. These findings from capturing both qualitative and quantitative evidence simultaneously described distinctive aspects related to either perceived quality of life or of a confessor and, thus, are useful to healthcare research and practice by explaining aspects of EH and RH collective mental model similarities and differences. As relational models contingently shift from one collective mental model to a more abstract concept and vice versa, future writings should also address both levels. Results can inform healthcare social practices and relationships.

REFERENCES

- Latkin, C. A., Dayton, L., Yi, G., Colon, B., & Kong, X. (2021). Mask usage, social distancing, racial, and gender correlates of COVID-19 vaccine intentions among adults in the US. PloS one. plos.org
- El-Shitany, N. A., Harakeh, S., Badr-Eldin, S. M., Bagher, A. M., Eid, B., Almukadi, H., ... & El-Hamamsy, M. (2021). Minor to moderate side effects of Pfizer-BioNTech COVID-19 vaccine among Saudi residents: a retrospective cross-sectional study. International journal of general medicine, 1389-1401. tandfonline.com
- Xin, M., Luo, S., She, R., Yu, Y., Li, L., Wang, S., ... & Lau, J. T. F. (2020). Negative cognitive and psychological correlates of mandatory quarantine during the initial COVID-19 outbreak in China. American Psychologist, 75(5), 607. [HTML]

Coping and Quality of Life Differences between Emergency and Rehabilitation Healthcare Workers

- Lustig, Y., Sapir, E., Regev-Yochay, G., Cohen, C., Fluss, R., Olmer, L., ... & Kreiss, Y. (2021). BNT162b2 COVID-19 vaccine and correlates of humoral immune responses and dynamics: a prospective, single-centre, longitudinal cohort study in health-care workers. The Lancet Respiratory Medicine, 9(9), 999-1009. thelancet.com
- Alzueta, E., Perrin, P., Baker, F. C., Caffarra, S., Ramos-Usuga, D., Yuksel, D., & Arango-Lasprilla, J. C. (2021). How the COVID-19 pandemic has changed our lives: A study of psychological correlates across 59 countries. Journal of clinical psychology, 77(3), 556-570. researchgate.net
- Grupper, A., Rabinowich, L., Schwartz, D., Schwartz, I. F., Ben-Yehoyada, M., Shashar, M., ... & Katchman, H. (2021). Reduced humoral response to mRNA SARS-CoV-2 BNT162b2 vaccine in kidney transplant recipients without prior exposure to the virus. American Journal of Transplantation, 21(8), 2719-2726. sciencedirect.com