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The predictive role of resilience and the ethical climate of hospital in the fatigue of surgical technologists working in operating rooms

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Abstract

Background Fatigue in surgical technologists is of paramount importance and is known as a priority because it can be regarded as a threat to the nurse's health and patient's safety. The fatigue level of healthcare workers can be affected by some factors, while the role of part of these factors is less known. This study aimed to determine the predictive role of resilience and the hospital ethical climate in the fatigue of surgical technologists working in operating rooms (ORs).

Methods This is a cross-sectional study conducted on 217 surgical technologists working in ORs of hospitals affiliated with Shiraz University of Medical Sciences. Data were collected using Connor-Davidson's Resilience scale, Olson's Hospital Ethical Climate Survey, and the Multidimensional Fatigue Inventory, and then analyzed using Pearson's correlation coefficient and multiple regression analysis.

Results 87.1% and 12.9% of surgical technologists reported low and high fatigue, respectively. All fatigue subscales had significant and negative relationships with resilience ($p < 0.05$). Moreover, the relationship between fatigue and ethical climate was significant ($p = 0.02$). The multiple linear regression model showed the predictive role of resilience in fatigue ($\beta = -0.29$, $P < 0.001$). According to the model, 10% of the change of fatigue was related to resilience and ethical climate.

Conclusion The present study demonstrated the relationship between resilience and ethical climate with fatigue. Moreover, resilience was a predictor of the surgical technologists' fatigue, so that their fatigue decreased with increasing resilience. However, future studies are recommended to determine other factors influencing fatigue in surgical technologists.

Keywords Fatigue, Resilience, Climate, Ethical, Nurse, Operating room

Introduction

The operating room (ORs) falls into the most sensitive workplaces, where the quality of work is a factor determining the quality of work at hospitals. Thus, it is expected that the highest standards are observed in ORs without even the slightest mistake. Therefore, working in such a complex environment causes job stress in ORs staff [1, 2]. It was reported that more than two-thirds of

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the technologists. An association was found between the ethical climate and fatigue such that ethical climate improvement reduced fatigue in technologists. It can be concluded that increasing the resilience and ethical climate levels can effectively reduce fatigue in surgical technologists. Therefore, OR personnel, as healthcare providers on the front line, are recommended to increase their flexibility and resilience along with their activities in facing problems and move toward performance improvement and fatigue reduction through the creation and maintenance of a favorable ethical climate at hospitals.

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Authors' contributions

Nilofar Pasyar, Masoume Rambod, and Marzieh Soltanian participated in the study. All authors contributed to the conceptualizing, designing, drafting, reading, revising, and approving the manuscript. Nilofar Pasyar, Masoume Rambod, and Marzieh Soltanian contributed to data collection management. Masoume Rambod and Marzieh Soltanian collaborated in data analysis and interpretation.

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Availability of data and materials

Data would be available to email of the corresponding author based on request.

Declarations

Ethics approval and consent to participate

The project was approved with the ethics code of IR.SUMS.NUMIMG.REC.1401.005 in Research Ethics Committees of School of Nursing and Midwifery, management and Medical Information science-Shiraz University of Medical Sciences (Approval date: 22-3-12). Written consent forms were obtained from the surgical technologists working in operating rooms. The questionnaires were coded and they were anonymous. The surgical technologists working in operating rooms were ensured of data confidentiality.

Consent for publication

Data were published anonymously.

Competing interests

The authors declare no competing interests.

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