Assessing Levels of Occupational Stress among Clinical Dental Students

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ABSTRACT

Introduction: Occupational stress is known today as one of the biggest challenges to higher education policy-makers. Students with high levels of stress find themselves lacking in self-confidence, vulnerable in controlling academic processes, and unable to compensate for clinical weaknesses. The main purpose of this study was to assess the levels of occupational stress among clinical dental students of Alborz University of Medical Sciences, Alborz, Iran.

Material and Methods: This study was a descriptive-analytic research with a cross-sectional design. The statistical population included all dental clinical students enrolled in the 7th, 9th, and 11th semesters in 2018 (n=84). According to the Krejcie and Morgan’s table, the sample size was 70. The data were also collected through the Osipow Occupational Stress Questionnaire, and then analyzed using the SPSS Statistics software (ver. 22). Besides, t-test was employed to investigate the relationship between variables and stress.

Results: The results revealed that the mean score of the students was 150.8. The mean total stress in the age group above 26 years was also 158 and that was 147 for those under the age of 26 (P-value=0.027). Besides, the mean score of overall occupational stress was equal in women and men. Comparisons also demonstrated that students in the 9th and 11th semesters (mean=161) were undergoing more stress than the ones enrolled in the 7th semester (mean=147) (P-value=0.014).

Conclusion: It was concluded that these clinical dental students were suffering from moderate-to-severe occupational stress. Likewise, older students had more stress than younger counterparts did. As well, male and female students’ levels of occupational stress were the same. Resolving this issue accordingly required special attention by higher education policy-makers to provide support and counseling in this respect.

Keywords: Occupational Stress; Dental Students; Osipow Questionnaire

ORIGINAL RESEARCH PAPER

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1. INTRODUCTION

Occupational stress is known today as one of the biggest challenges to higher education policy-makers. The type of work also plays an important role in this regard. Dentistry is one of the most stressful professions and the prevalence of stress in dentists is reported to be more than three times than that of ordinary people in the community. As well, the schools of dentistry are a stressful environment for students. The school environment, whether general or small, such as a classroom, laboratory, clinic, or community, is very stressful for students to learn and develop professionally. During clinical education, opportunities are also provided for students to link theoretical information with practical facts. This is a stressful step during the training course. Increased responsiveness to patients along with mismatch of knowledge and ability of students can thus cause occupational stress.
in students. Accordingly, students with high levels of stress find themselves lacking in self-confidence, vulnerable in controlling academic processes, and unable to compensate for clinical weaknesses. Therefore, the present study was to assess the levels of occupational stress among clinical dental students at Alborz University of Medical Science, Alborz, Iran.

2. MATERIAL AND METHODS
This study was a descriptive-analytic cross-sectional survey, in which the statistical population included all dental clinical students enrolled in the 7th, 9th, and 11th semesters in 2018 (n=84). According to the Krejcie and Morgan's table, the sample size was 70. The data were also collected through the Osipow Occupational Stress Questionnaire, and then analyzed using the SPSS Statistics software (ver. 22). The 60-item questionnaire had reflected on six dimensions of role workload, role inadequacy, role ambiguity, role conflict, responsibility, and physical environment to evaluate occupational stress and its related psychological strains, and each dimension consisted of 10 items in a five-point Likert-type scale (namely, "never"= 1 to "most of the time"=5), as follows:

- **Role workload**: Assessing an individual's conditions with regard to the demands of the work environment with 10 items
- **Role inadequacy**: Evaluating the proportions of skills as well as educational and empirical characteristics of a person with 10 items
- **Role ambiguity**: Analyzing an individual's awareness about priorities, workplace expectations, and valuation criteria with 10 items
- **Role conflict**: Measuring contradictions that a person expects in terms of work ethics and their role in the workplace with 10 items
- **Responsibility**: Examining an individual's responsibility based on efficiency and welfare in the workplace with 10 items
- **Physical environment**: Studying improper physical conditions of the workplace with 10 items

The demographic characteristics information about the respondents were also collected and compared with occupational stress scores. Based on the obtained values, the effect of each stressor was classified in four categories: mild (10-19), moderate (20-29), high (30-39), and severe (40-50). The total occupational stress was also classified in four groups: mild (50-99), moderate (100-149), high (150-199), and severe (200-250), respectively. The data were then analyzed using the SPSS Statistics software (ver. 22). As well, t-test was exploited to investigate the relationships between the variables and the levels of occupational stress.

3. RESULTS AND DISCUSSION
The mean score of the students was 150.8, the mean total stress in the age group above 26 years was 158, and that was 147 for those aged under the age of 26 (P-value= 0.027). The mean score of overall occupational stress was the same in women and men. Besides, comparisons demonstrated that the students enrolled in the 9th and 11th semesters (mean=161) had more stress than the ones in the 7th semester (mean=147) (P-value=0.014).

4. CONCLUSION
Clinical dental students recruited in this study were suffering from moderate-to-severe levels of occupational stress. Older students also had more stress than younger counterparts did. However, male and female students’ stress was identical. Resolving this issue requires special attention by higher education policy-makers in terms of support and counseling. It is also necessary for the managers of dental education departments to consider clinical education as the main part of dental education because it is a vital part of the curriculum and plays a key role in shaping students’ core skills and professional competencies.

<table>
<thead>
<tr>
<th>subcategories</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Min</th>
<th>Max</th>
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<td>Role workload</td>
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<td>109</td>
<td>196</td>
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<tr>
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<td>24.53</td>
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<td>Role ambiguity</td>
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<td>21.86</td>
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<td>Role conflict</td>
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<td>25.05</td>
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<td>184</td>
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<td>Responsibility</td>
<td>138.2</td>
<td>29.46</td>
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<td>185</td>
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<td>Physical environment</td>
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<td>23.8</td>
<td>97</td>
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5. ACKNOWLEDGMENT
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REFERENCES