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The Study of the Relationship between the Depression and Stress Coping Strategies among General Dentists in Isfahan

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ABSTRACT

Background: Dentistry is one of the most anxious and stressful jobs. As depression is one of the side effects of stress, knowing strategies to cope with it is critical. The aim of this study was to determine the Relationship between Depression and Stress Coping Strategies among General Dentists in Isfahan.
Methods: This correlational and cross-sectional study was conducted on dentists in Isfahan. Sixty dentists with 5-15 years of job experience who were found to have positive stress based on a questionnaire volunteered for our study. These dentists were divided into two groups using the stress protections questionnaire. Those who knew 18 or more ways of protection from stress were included in the control group and the rest in the case group. These dentists were evaluated by Beck Depression Inventory for determining depression and their scores.
Results: There was no statistically significant difference between the two groups in terms of age and gender .The mean score of Beck inventory was 14 in the control and 28 in the case group ($P < 0.001$). Also, there was a direct relationship between depression severity scores and the strategies of coping with stress ($r = -0.966$, $P < 0.001$). Also, Score of coping with stress and varying rates of depression severity was statistically significant ($P < 0.001$).
Conclusions: According to these results, depression was correlated with knowledge of dentists in coping strategies. Accordingly, including course units on learning strategies for coping with stress in the dentistry curriculum as well as arranging classes (workshops) for the graduates of this field of study is recommended.
KEY WORDS: Dentistry, Depression, Coping Strategies.

1. INTRODUCTION

Stress has been recognized as a reaction to factors or conditions which cause psychological and physical tension to an individual (1). In other words, stress refers to the specific and nonspecific response patterns which disequilibrate living creatures and necessitates combating these factors (2).

Psychological and social stressors have always been considered sources of different physical and mental diseases. Complications resulting from stress and the ensuing continuing physical and psychological problems are not restricted to physical and mental disorders they can also harmfully affect the performance of people at work. A good number of studies have been carried out since 1980 which indicate that mental stresses cause fatigue syndrome (burnout) (3,4,5).

An increasing avoidance to perform tasks and doing activities, disruption in sleep pattern and failure in education, job and social performance are all the outcomes of stress (6,7). Many research studies have reported anxiety and depression coming with stress. Also, many studies have shown that stress ends up in anxiety in physicians, dentists, and students studying in these two fields (8,9).

One who is stressed will certainly run into difficulty when making decisions, planning, associating with others, inefficiency in job and eventually effectiveness of individuals. On the other hand, and an employee who is stressed is likely to cause tension and stress in all the people who work with him (6,10,11).

Dentistry is a stressful profession and is even more stressful compared to other professions affiliated to health matters (12). Stress which cause disorders and show symptoms of disease (handshake, dryness in mouth, in appetite, headache, etc.) can influence the dentist's profession. The amount of stress in dentists is correlated with their ability to cope with stress (13,14). In the meantime, the strategies of coping with stressful sources and cognitive and behavioral activities which are taken up adopted by a person in meeting of his needs and giving him/her the ability to fight stress are continuously changing. Strategies of coping with stress are correlated with

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an individual's personality, special circumstances, and environmental variables. Moreover, culture and communities are functional in recognizing of the stressors and the ways to cope with (12).

Having the above issues on mind and considering the fact that dentistry is so vital in enhancing the community health, controlling professional stresses requires special attention, knowing strategies of coping with stress is one of the issues which requires special attention (15,16). The present study was conducted to investigate the relationship between depression and stress coping strategies among the general dentists in Isfahan.

I. GOALS HAIR

The study of the relationship between the depression and stress coping strategies among general dentists in Isfahan.

2. MATERIALS AND METHOD

The present research study was a quantitative correlational and cross-sectional one done in the city of Isfahan. The population of the study was all the general dentists working in Isfahan. Data collection instruments included three questionnaires, namely stress symptoms questionnaire, stress coping strategy questionnaire, and Beck Depression Inventory (BDI) which were administered in three phases to the general dentists in Isfahan with a work experience of five to fifteen.

II. PHASE ONE

The Beck Depression Inventory questionnaire (17) was filled out by the samples and those participants who showed more than fifteen symptoms of stress (13) were selected. Thus, sixty dentists in Isfahan were selected as the sample of the study. Beck Depression Inventory contains fifty items which measure four sets of stress symptoms (cognitive, affective, behavioral, and physical). Alpha Cronbach was used to estimate the reliability of the questionnaire. The reliability coefficient of the total questionnaire was α = .82 and the alpha for the subsets (subsections, subtests)were α = .81for physical symptoms, .83 for affective symptoms, .80 for cognitive symptoms and .81 for behavioral symptoms.

III. PHASE TWO

Stress copying strategy questionnaire was filled out by the participants. The participants who had selected more than half of the number of coping strategies as skills of coping with stress were selected as the experimental group and those who had chosen less than half of the number of items were selected as the control group. There were thirty participants in each group. This questionnaires contains 90 questions (88 closed needed and one open-ended item) which are used to measure eighteen ways of coping with stress in the adolescents and young people aged 12 to 25. An example item is used to instruct the participants how to fill out the questionnaire. The reliability of the questionnaire was checked using test-retest method, alpha Cronbach, and factor analysis as adopted in the Shokri et al study (18).

IV. **PHASE THREE**

In the third phase of the study, Beck Depression Inventory questionnaire was filled out by the participants in both the experimental and the control groups. The scores obtained on BDI indicated the rate of depression. The reliability coefficient of the questionnaire has been established by Beck using test-retest method with one week interval between the two administrations and was reported as 93 (19,20). The reliability of this questionnaire has also been established in Iran (21). In the end, the statistical data of BDI for each participant were obtained. The means and the standard deviations of the rate of depression in each group was calculated using SPSS-11 software. T-test and ANOVA were used to measure the statistical significance of the mean differences between the experimental and the control groups.

V. FINDINGS

Thirty two male and twenty eight female's participants formed the study population .Based on Chi-square statistics, no statistically significant difference was found between the two groups ($P \geq 0.05$). The mean age was 39 in the control group and 42 in the experimental group. Age differences were subjected to T-test statistics which yielded no significant difference (P=0.86).

As it was mentioned before, participants who had more than fifteen symptoms of stress were categorized as stressful based on the questionnaire of stress symptoms and were grouped into two on the basis of knowledge of stress coping strategies. Then the rate of depression was measured via BDI.

Table 1 display the descriptive statistics of depression. Also, rates of the severity of depression as found in BDI have been displayed in graphs. The stress coping strategies score frequency showed that 5% of the participants had a score of 0 to 5, 36.7% had a score of 5 to10, 25 % obtained a score of 15 to 20, and 33.3% a score of 15 to 20.

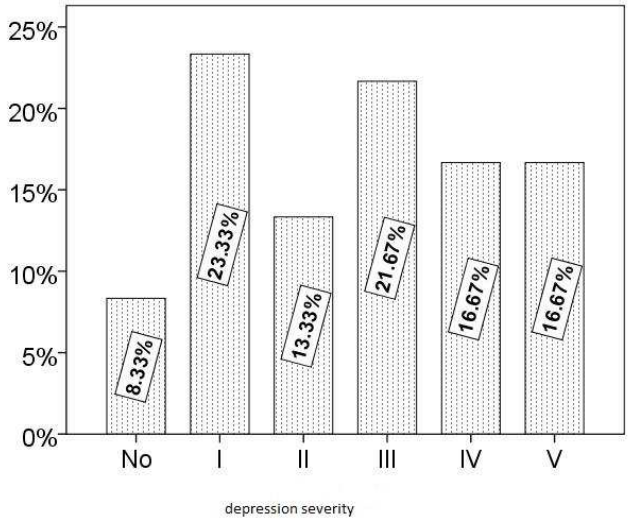
Based on Pearson correlation formula and also the results of the one-way ANOVA, the correlation coefficient of depression scores and the scores of stress coping strategies came out to be statistically significant the correlation coefficient was negative (r= - 0. 966). Also, the relationship between depression scores and stress

coping strategies scores were calculated using ANOVA. The results indicated that the mean scores of coping with stress were statistically significant in all levels of depression ($P \leq 0.001$) (graph 2). The results show that the existence of depression was obviously lower among those who applied these strategies than among those who did not.

TABEL1: DESCRIPTIVE STATISTICS FOR DEPRESSION AND STRESS COPING STRATEGIES

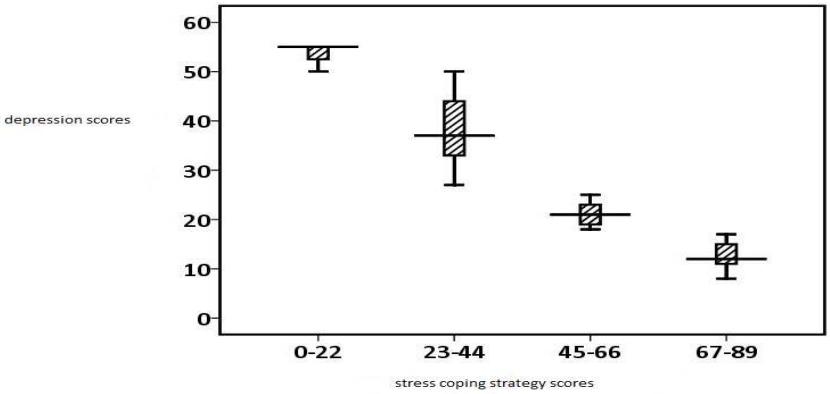
RANGE	MEDIAN	SD	MEAN	
89-15	55	20/5	54/2	STRESS COPING STRATEGIES
55-8	22	13/5	25/5	DEPRESSION COPING STRATEGIES

GRAPH 1: FREQUENCY OF DIFFERENT RATES OF DEPRESSION BASED ON BEC



NO NORMAL 33/8%
I. LITTLE DEPRESSION 33/23%
II. NEEDS PSYCHOLOGIST'S CONSULTATION 33/13%
III. PARTIAL DEPRESSION 67/21%
IV. SEVERE DEPRESSION67/16%
V. OVERDEPRESSION 67/16%

GRAPH 2: CORRELATION BETWEEN DEPRESSION SCORES WITH COPING STRATEGY'S SCORES



3. DISCUSSION AND CONCLUSION

Activities of faculty members in expertise acquisition process are affected by the interest and intrinsic motivation and extrinsic motivation. However, due to the dynamic nature of human, teacher ship and mastership require effort and dynamic and ongoing training to achieve professional qualifications. Accordingly acquired expertise is placed in the axial direction and also on one hand is based on the views and interests of them towards teaching profession and on the other hand is based on their individual efforts are at different levels of it. Therefore, teachers due to having different levels of interest, incentives, and definition of the concept of expertise in education, indicate different behaviors and reactions to the challenges exist in the way of competency acquiring. In other words, in spite of numerous internal and external factors in the direction of acquiring expertise, if masters have individual characteristics with positive attitude and interest towards the teaching profession, inhibiting factors such as the particular situation of social, environmental and organizational that are available at direction of obtained competency, had only a marginal role and they will be able to follow the process successfully and develop to the self-reflection and becoming capable in education.

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