

## Original Research

### Determination of Stress Factors in General Population

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#### ABSTRACT:

**Background:** Stress is the emotional and physical strain caused by our response to pressure from the outside world. The present study was conducted to assess stress in general population. **Materials & Methods:** The present study was conducted on 1025 subjects of both genders. Stress related to marital life, family, employment and work place was recorded. A questionnaire such as The Nordic Questionnaire for Psychological and Social Factors at Work (QPS Nordic) in order to assess perceived stress was given to all subjects and asked to respond. **Results:** Out of 1025 subjects, males were 440 and females were 585. Maximum males (180) had level 2 stress and females (245) had level 3 stress. Maximum married (560) had level 3 stress and unmarried had (30) level 3 stress. Maximum married (560) and unmarried (30) had level 3 stress. Maximum employed (310) and unemployed (80) had level 3 stress. The difference was significant ( $P < 0.05$ ). **Conclusion:** Stress was observed more in females as compared to males. Level 3 stress was commonly seen in all subjects.

**Key words:** Employment, Nordic Questionnaire, Stress

Received: 14 March, 2019

Revised: 20 May 2019

Accepted: 22 May 2019

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**This article may be cited as:** Gupta R, Gupta B, Gupta M, Mohan S. Determination of Stress Factors in General Population. J Adv Med Dent Scie Res 2019;7(6): 80-82.

#### INTRODUCTION

Stress is the emotional and physical strain caused by our response to pressure from the outside world. It is specific response by the body to a stimulus that disturbs normal functioning. A Stressor is an event or any stimulus that cause an individual to experience stress. It's almost impossible to live without some stress and most of us wouldn't want to, because it gives life some spice and excitement.<sup>1</sup>

Selye<sup>2</sup> used the term "stress" to represent the effects of anything that seriously threatens homeostasis. The actual or perceived threat to an organism is referred to as the "stressor" and the response to the stressor is called the

"stress response." *Distress*, or 'bad stress', is the point at which the good stress becomes too much to bear or cope with. Some signals that this change has occurred are when tension begins to build, and there is no longer any fun in the challenge or there seems to be no relief or end in sight. This kind of stress is well-known, and may lead to poor decision-making.<sup>3</sup> The general characteristics of a person in distress are: being over-aroused; tense or unable to relax; touchy, easily upset or irritable; easily startled or fidgety, and demonstrating intolerance of any interruption or delay. Excessive stress results in an increased prevalence of psychological problems like depression, anxiety, substance

abuse and suicide ideation.<sup>4</sup> The present study was conducted to assess stress in general population.

## MATERIALS & METHODS

The present study was conducted in the Department of Community Dentistry. It comprised of 1025 subjects of both genders. The study was approved from institutional ethical committee. Subjects were informed regarding the study and written consent was obtained.

General information such as name, age, gender etc. was recorded. Stress related to marital life, family, employment and work place was recorded. A questionnaire such as The Nordic Questionnaire for Psychological and Social Factors at Work (QPS Nordic) in order to assess perceived stress was given to all subjects and asked to respond. A question was asked such as "Do you feel this kind of stress these days?" There were five possible answers: "not at all", "only a little", "to some extent", "rather much" and "very much". The answers "not at all" and "only a little" were labelled very low levels of perceived stress (level 1), and "to some extent" was labelled a low level of perceived stress (level 2) while "rather much" and "very much", were labelled moderate to high levels of perceived stress (level 3). Results thus obtained were recorded and subjected to statistical analysis. P value less than 0.05 was considered significant.

## RESULTS

**Table I Distribution of subjects**

Total- 1025		
Gender	Males	Females
Number	440	585

Table I, shows that out of 1025 subjects, males were 440 and females were 585.

**Table II Assessment of perceived stress**

Parameters	Level 1	Level 2	Level 3	P value
<b>Gender</b>				
Males	50	180	110	0.01
Female	110	190	245	0.02
<b>Marital status</b>				
Married	160	240	560	0.03
Unmarried	10	25	30	0.52
<b>Employment</b>				
Employed	90	480	310	0.001
Unemployed	25	40	80	0.42

Table II shows that maximum males (180) had level 2 stress and females (245) had level 3 stress. Maximum married (560) had level 3 stress and unmarried had (30)

level 3 stress. Maximum married (560) and unmarried (30) had level 3 stress. Maximum employed (310) and unemployed (80) had level 3 stress. The difference was significant ( $P < 0.05$ ).

## DISCUSSION

Stress, depression and anxiety are common mental disorders, well studied in various populations. In epidemiologic studies from different countries, 4-10% of the participants aged 20–60 years were deemed to suffer from depression, and 12-17% of the population suffered from various anxiety syndromes. The point prevalence of major depression in Sweden was 5.2% and the point prevalence of clinical significant anxiety was 14.7% in an general population 2009.<sup>5</sup>

Common stress reactions include tension, irritability, inability to concentrate and a variety of physical symptoms i.e. headache and fast heart beat. Stress results from the interaction between stressors and the individual's perception and reaction to those stressors. The amount of stress experienced may be influenced by the individual's ability to effectively cope with stressful events and situations.<sup>6</sup> The present study was conducted to assess stress in general population.

In present study, out of 1025 subjects, males were 440 and females were 585. In present study maximum males (180) had level 2 stress and females (245) had level 3 stress. Maximum married (560) had level 3 stress and unmarried had (30) level 3 stress. Maximum married (560) and unmarried (30) had level 3 stress. Maximum employed (310) and unemployed (80) had level 3 stress.

Kohn et al<sup>7</sup> found that 97% of the subjects had moderate level of stress whereas 3% had severe stress. Among the factors contributing to stress, the environmental factors had maximum contribution (40%) followed by the interpersonal factors (30%). The academic factors had only 19% contribution whereas the intrapersonal factors contributed minimally. The findings of the study can be useful in designing a suitable stress management programme for nursing students which shall include the conflict management training, time management training and the social skill training etc.

Shannon et al<sup>8</sup> found that out of the 1,224 respondents, 299 (24.4%) experienced stress. Among them 115 (38.5%), 102 (34.1%) and 82 (27.4%) were dental, medical and engineering students, respectively. There was a statistically significant association between stress and the field of education. Stress was observed in 187 (27.7%) females and 112 (20.4%) males; the association with gender was statistically significant. By applying binary logistic regression, medical studies, health and lifestyle factors, and academic factors were the significant predictors for stress.

Miller et al<sup>9</sup> showed that rats raised by nurturing mothers have increased levels of central serotonin activity compared with rats raised by less nurturing mothers. The increased serotonin activity leads to increased expression of a central

glucocorticoid receptor gene. This, in turn, leads to higher numbers of glucocorticoid receptors in the limbic system and improved glucocorticoid feedback into the CNS throughout the rat's life. Interestingly, female rats who receive a high level of nurturing in turn become highly nurturing mothers whose offspring also have high levels of glucocorticoid receptors. This example of behaviorally induced gene expression shows how highly nurtured rats develop into low-anxiety adults, who in turn become nurturing mothers with reduced stress responses.

### CONCLUSION

Stress was observed more in females as compared to males. Level 3 stress was commonly seen in all subjects.

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