

## TO ASSESS THE RELATION BETWEEN DEPRESSION AND TOOTH LOSS- A QUESTIONNAIRE SURVEY

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### ABSTRACT

**Background:** The loss of teeth which causes many adverse anatomic, esthetic, and biomechanical sequelae can also prove to be a terrible psychological shock to patients. The present study was conducted to assess the relation between depression and tooth loss in study population. **Materials & Methods:** The present study was conducted on 45 patients of both genders. Depressive symptoms were determined using the Zung Self-Rating Depression Scale (ZSDS) The ZSDS includes 20 items, each with four specified alternative answers. The items measure common psychic and somatic symptoms, including the criteria generally used in diagnosing depression. **Results:** Out of 45 patients, males were 22 and females were 23. The difference was non- significant (P= 1). Males having ZSDS score >40, married were 15 and unmarried were 7, among females having ZSDS score >40, married were 14 and unmarried were 9 and among males having ZSDS score >40, 13 had family income less than 6000 and 9 had >6000 and among females having ZSDS score >40, 15 had family income less than 6000 and 8 had >6000. The difference was non-significant (P> 0.05). **Conclusion:** Depression has negative effect on oral health. The chances of periodontal diseases and edentulism increases significantly in subjects with depression.

### INTRODUCTION

The loss of teeth which causes many adverse anatomic, aesthetic, and biomechanical sequelae can also prove to be a terrible psychological shock to patients. In order to fully understand “the burden of illness” among the edentulous patient group, one must, therefore, cultivate an understanding of the physical, as well as the psychosocial dimensions of tooth loss. Dentistry has witnessed much research into the physical aspects of tooth loss.<sup>1</sup>

The basic emotional and symbolic importance of the mouth in mental development and some characteristics connected with depression and depressive symptoms support the hypothesis that there is an association

between “mood and mouth”. Comorbidity of somatic illnesses and depression is a largely reported phenomenon. For example, there exists cogent evidence of the association between depression or depressive symptoms and cardiovascular diseases. Although the face represents only a small proportion of the surface of the body, it embodies our social identities.<sup>2</sup>

The body schema is heavily invested with emotional meaning and significant changes in body image can result in varying degrees of emotional instability. Several human and animal studies suggest an association between stress and periodontal disease but there exist relatively few studies on the relationship

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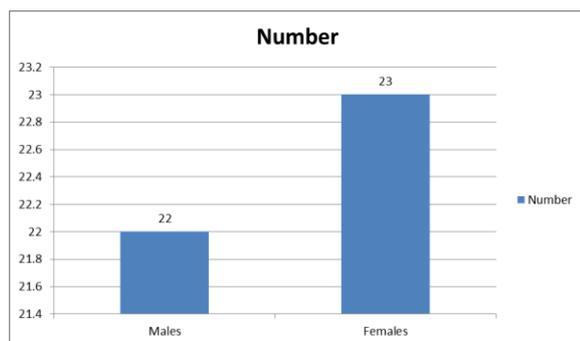
between depression and periodontal conditions.<sup>3</sup> The present study was conducted to assess the relation between depression and tooth loss in study population.

## MATERIALS & METHODS

The present study was conducted in the department of Prosthodontics. It consisted of 45 patients of both genders. Ethical clearance was obtained before starting the study.

General information such as name, age, gender etc. was noted. Depressive symptoms were determined using the Zung Self-Rating Depression Scale (ZSDS)<sup>4</sup>. The ZSDS includes 20 items, each with four specified alternative answers. The items measure common psychic and somatic symptoms, including the criteria generally used in diagnosing depression. The points were calculated as total raw sum points on a scale from 20 to 80. The cutoff points of 43/44 and 39/40 were used in the sub studies, and the participants who scored 44 raw sum points or more or 40 raw sum points or more were regarded as having high rates of depressive symptoms. Results thus obtained were subjected to statistical analysis using chi- square test. P value less than 0.05 was considered significant.

## RESULTS



**Graph I Distribution of patients**

Graph I shows that out of 45 patients, males were 22

and females were 23. The difference was non-significant (P- 1).

Variable	Males	Females	P value
	ZSDS>40	ZSDS>40	
Married	15	14	0.1
Unmarried	7	9	
Family income <6000	13	15	0.5
>6000	9	8	

**Table II Prevalence of high rates of depressive symptoms in relation to marital status and socioeconomic factors**

Table II shows that among males having ZSDS score >40, married were 15 and unmarried were 7, among females having ZSDS score >40, married were 14 and unmarried were 9 and among males having ZSDS score >40, 13 had family income less than 6000 and 9 had >6000 and among females having ZSDS score >40, 15 had family income less than 6000 and 8 had >6000. The difference was non- significant (P> 0.05).

## DISCUSSION

A national survey of adult dental health in the United Kingdom reported that an increasing number of adults find the prospect of total tooth loss upsetting. The emotional reactions and feelings experienced by edentulous and partially dentate people as a result of tooth loss have been explored qualitatively and quantitatively in previous studies in the United Kingdom.<sup>5</sup>

The social context in which we live is important in shaping responses to diseases and the experience of health and illness. To determine the societal and cultural influences, transcultural studies comparing

emotional reactions to tooth loss between Eastern and Western societies have also been carried out. In order to be more representative of the general population, in Hong Kong, such a study has been conducted among the community-dwelling individuals. However, not much in this respect has been reported in India.<sup>6</sup>

In present study, out of 45 patients, males were 22 and females were 23. We found that among males having ZSDS score >40, married were 15 and unmarried were 7, among females having ZSDS score >40, married were 14 and unmarried were 9 and among males having ZSDS score >40, 13 had family income less than 6000 and 9 had >6000 and among females having ZSDS score >40, 15 had family income less than 6000 and 8 had >6000. This is similar to findings of Scott et al.<sup>7</sup>

Rupat et al<sup>8</sup> in their study of depression and its relation with edentulism found that 100 out of 147 edentulous people returned the questionnaire of which 58% experienced difficulties in accepting tooth loss and 37% felt unprepared for its effects. Those with difficulties accepting tooth loss had a greater effect on self-esteem and social life, had more reservation about discussing tooth loss and were more likely to experience depression. Both groups were satisfied with dentures, had no problem meeting their friends or partners without dentures and leaving out dentures at night. About 58% of edentulous people had difficulties accepting tooth loss, which was unrelated to denture satisfaction. Respondents appeared to be restricted in social activities mainly due to functional limitations. Those with difficulties accepting tooth loss were more likely to experience depression.

ZSDS turned out to discriminate well between non-depressed subjects and those suffering from a depressive disorder in a sample of depressed patients

and a sample of normal subjects from the Czech population. Three factors of the ZSDS interpretable as cognitive, affective, and somatic symptoms with good cross-validity of the factor structures. Turner & Romano<sup>9</sup> tested the validity of the ZSDS, BDI, and MMPI (Minnesota Multiphasic Personality Inventory) against the diagnosis of major depression on the basis of the DSM-III criteria in chronic pain patients. ZSDS and BDI showed good sensitivity and specificity and were comparable in detecting major depression in this sample. The results of Biggs and coworkers<sup>10</sup> showed ZSDS to be a valid and sensitive measure of clinical severity in depressed patients.

## CONCLUSION

Depression has negative effect on oral health. The chances of periodontal diseases and edentulism increases significantly in subjects with depression.

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