

Original Research Paper

Stress Related to Tooth Discoloration among Young Females in the Eastern Region of Saudi Arabia

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Objective: The study is assessing the esthetic significance and psychological impact resulting from discoloration of teeth, treatment, and prevention methods among females in the Eastern region. **Materials & Method:** A cross-sectional study with sample size (n:350), females aged between 19-40 years in the Eastern region of Saudi Arabia. Using closed-ended standard questions. The questionnaire has been constructed, which is sent through social media (Facebook & Whatsapp) using survey monkey. The questionnaire is divided into two parts, the 1st part for demographic data, 2nd part is assessing the stress due to discoloration and if they seek any treatment. The data collected was statistically analyzed using the Statistical Package for Social Sciences software (SPSS), version 25 (IBM Corp., Armonk, NY, USA). **Results:** A total of 350 questionnaires were answered by respondents, the age range of the study participants was 19-40 years old. The majority of respondents were in the age range of 19-24 (n=161, 45.50%) while the rest were distributed among the three different age groups. **Conclusion:** an appreciable number of young females had their anterior teeth discolored, and most consequently reported one form of psychosocial problem or stress, influence the effect of dental esthetics on an individual's social and psychological well-being as well as self-confidence.

Keywords: Tooth discoloration, Dental esthetics, Stress.

INTRODUCTION

The face is the first impact a person makes. Teeth form an important part of the body that has many functions like chewing, speech as well as contributing to appearance and psychological and social impact on a person. (Newton TN, 2003)

The color of teeth varies from white to yellowish and it is an important feature in determining the attractiveness of the face. (Robinson PG, 2008) Tooth discoloration is lighter in children and becomes darker as age increases. There are two types of tooth discoloration: it could be intrinsic, extrinsic, or a combination of both. Intrinsic discoloration can be caused by: exposure to high levels of fluoride, tetracycline, or some other drugs, inherited developmental disorders, trauma, aging, and pulp necrosis.

Extrinsic discoloration can be caused by compounds from substances such as smoking, coffee, tea, cola, and other drinks are incorporated into the outer surface of the tooth. Tooth discoloration can cause a significant cosmetic problem especially when it affects anterior teeth, which is usually exposed when a person smiles, causing embarrassment, more psychological stress, and negative emotions such as anxiety,

fear, depression and timidity, which is a good reason to seek dental treatment. (Koleoso DC, 2004). Oral health is not only the absence of oral disease and dysfunction, but it includes its influence on the subject's social life and dentofacial self-confidence. This is in accordance with the WHO's definition of quality of life. (WHO, 1995) Patients nowadays demand not only a healthy mouth but also a perfect smile.

MATERIALS AND METHOD

The ethical approval letter was obtained from the institutional research board research center of REU, and the IRB number of this research is "FRP/2020/219/113/110".

The study is assessing the esthetic significance and psychological impact resulting from discoloration of teeth, treatment, and prevention methods among females in the Eastern region. A cross-sectional study with sample size (n:350), females age between 19-40 years in the Eastern region of Saudi Arabia. Using closed-ended standard questions. The questionnaire has been constructed, which is sent through social media (Facebook and Whatsapp) using

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survey monkey. The questionnaire was designed to measure; dental self-confidence, social life impact, psychological impact, esthetic concern & lastly if they have been seeking any treatment. (Klages U, 2006)

Started collecting data on 02/28/2020 and finished on 03/16/2020. The questionnaire is divided into two parts, the 1st part for demographic data, 2nd part is assessing the stress due to discoloration and if they seek any treatment. The data collected was statistically analyzed using the Statistical Package for Social Sciences software (SPSS), version 25 (IBM Corp., Armonk, NY, USA).

RESULTS

Statistical analysis: Descriptive statistics of frequency distribution and percentages were calculated for the categorical variables. Association between categorical variables and questionnaire item responses were assessed by applying Chi-square tests. A p-value less than ($p < 0.05$) was considered statistically significant. All the data were analyzed by using SPSS version 25 (Armonk, NY, USA).

The age range of the study participants was 19-40 years old. The majority of respondents were in the age range of 19-24 ($n=161$, 45.50%) while the rest were distributed among the three different age groups.

First, rating of the discolored teeth in different age groups on 10 point scale; the major answer was (1-4) which is a mild discoloration and the most affected group was 30-35Y (68.5%) ($p=0.611$), second: comfortableness in showing teeth while smiling rated on 10 points among different age groups; the major answer was (4-7) which they were not comfortable showing their teeth while smiling and the highest group was 25-30Y (49.3%) ($p=0.309$), third: negative thoughts among different age groups; the major answer was (no) which they were not facing any negative thoughts & the highest group was 19-24Y (61.8%) ($p=0.400$), fourth: perceived stress among different age groups on 10 point scale; the major answer was (1-4) which they were mild stress related to discoloration and the highest group was 30-35Y (64.8%) ($p=0.007$), fifth: treatment modalities wished by the subjects; in general, the majority of respondents ($n=157$, 44.0%) have been or wish to do bleaching as a treatment, the least respondents ($n=48$, 15.0%) have been or wish to do crown, veneers ($p=0.094$).

Based on the result of this study an appreciable number of young females had their anterior teeth discolored and most consequently reported one form of psychosocial problem or stress. However, there are certain limitations of this study. This study was conducted on young subjects so few of the subjects have received dental treatment for esthetic correction. This could result in a discrepancy in the final result of overall satisfaction with dental appearance.

The extent of age, level of education, and different conditions (physical and psychological) influence the effect of dental esthetics on an individual's social and psychological well-being as well as self-confidence.

DISCUSSION

The aim of the study was to assess the esthetic significance and psychological impact resulting from the discoloration of teeth. Tooth discoloration may affect an individual's self-confidence and the desire to have a good appearance and to evaluate the component of dental esthetics which is causing most dissatisfaction among the subjects. The result from the analysis is alarming – In this study, we found the number of females who are socially affected by the color of their teeth, whose ages range from 20-30 years. Also, there is a relationship between dental stains and the resulting tension. The majority of the subjects were highly satisfied with their smile and like to show their teeth while smiling and the tooth color was the major reason for their dissatisfaction. The fact that high self-esteem is related to practices which may reflect a person's self-confidence.

Self-satisfaction, social behavior, and psychological well-being are interrelated in this study. This is reflected by the findings that a significant number of subjects who are not satisfied with their smile and wished their teeth looked better do not like to show their teeth while smiling and what other people's opinion or what they think of their teeth. The reflection of dissatisfaction is hiding their teeth while smiling. They suggested that individuals, for whom oral health has some importance, are more likely to use dental appearance as a basis for making judgment of psychological adjustment and intellectual competence, 'somewhat unhappy about the appearance of my teeth'.

In one study, participants associated the presence of decayed and discolored teeth with lower levels of social and psychological adjustment. Previous studies have suggested that dental esthetics can have a remarkable impact on a subject's social and psychological well-being which is reflected in their behavior and can affect their self-confidence. Our study has shown similar results. But our study was on women. (Morley J, Eubank J, 2001)

The major goal of dental treatment is to restore esthetics as well as enable patients to feel confident about their smiles instead of hiding their teeth.

On the occasion with reference to treatment, we may recommend: tooth whitening, proper oral hygiene, and nutrition, the rational use of drugs and optimal consumption of fluoride in this community, oral hygiene maintenance, and finally crowns or veneers.

CONFLICT OF INTEREST

There was no conflict of interest among the authors.

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