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# Investigating the Role of Early Maladaptive Schemas and Body **Image in Satisfaction with Complete Denture**

Elnaz Shafiee<sup>1</sup>, Amin Nourizadeh<sup>2</sup>, Hossein Rostami<sup>3</sup>, Mohammad Babaei<sup>4</sup>

- <sup>1</sup> Assistant Professor, Department of Prosthodontics, School of Dentistry, Tabriz Medical Sciences, Islamic Azad University, Tabriz, Iran
- <sup>2</sup> Assistant Professor, Department of Prosthodontics, School of Dentistry, Tabriz University of Medical Sciences, Tabriz, Iran
- <sup>3</sup> Research Center for Cognitive and Behavioral Sciences in Police, Directorate of Health, Rescue and Treatment, Police Headquarter, Tehran, Iran
- <sup>4</sup> FARAJA Institute of Law Enforcement Sciences and Social Studies, Tehran, Iran

Corresponding Author: Hossein Rostami; Research Center for Cognitive and Behavioral Sciences in Police, Directorate of Health, Rescue and Treatment, Police Headquarter, Tehran, Iran Email: rostami.psychologist@gmail.com

## **Quantitative Study**

## **Abstract**

**Background:** One of the most important fundamental issues in mental health is patients' satisfaction with the beauty of their teeth and their compatibility with complete dentures. Therefore, this study investigated the role of early maladaptive schemas and body image in the level of satisfaction with complete dentures among patients referred to the dental clinic of Islamic Azad University of Tabriz, Iran, in 2021-2022.

Methods: The research was a descriptive correlational study. This study's statistical population included all candidates for complete dentures referring to the dental clinic of Islamic Azad University of Tabriz in 2021-22, from among which, 168 people were selected through convenience sampling method. The research tools included the Young Schema Questionnaire-Short Form (YSQ-SF) (1988), Body Image Concern Inventory (BICI) Littleton et al. (2005), and Dental Satisfaction Questionnaire (DSQ) by Davies and Ware (1982). The collected data were analyzed using multiple regression tests in SPSS software.

Results: The results showed a relationship between the components of early maladaptive schemas [failure ( $\beta = -0.225$ ), defectiveness/shame ( $\beta = -0.279$ ), social isolation/alienation ( $\beta = 0.278$ ), abandonment/instability ( $\beta = 0.331$ ), subjugation ( $\beta = -0.264$ ), and dependence/incompetence ( $\beta = 0.246$ )] and the level of satisfaction with complete dentures among the patients (P < 0.05). The results also showed a significant relationship between the components of body image and the level of satisfaction with complete dentures (P < 0.05). Conclusion: It can be concluded that early maladaptive schemas and body image play a role in

the satisfaction level of patients referred to the dental clinic of Islamic Azad University of Tabriz. **Keywords:** Early maladaptive schemas; Body image; Patient satisfaction; Complete dentures

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#### Introduction

Patients with complete dentures might report pain, looseness of the dentures, or problems speaking, eating, and drinking (Kimoto et al., 2022). The process by which an edentulous patient can accept and use his/her dentures is very complicated. In dental treatment, complete dentures are generally the first choice for the restoration of routine masticatory function in edentulous patients (Ibraheem & Hammad, 2020). Most rehabilitated individuals are satisfied with conventional complete dentures, but some complain about aesthetics, retention, and function of the mandibular arch (Hauck, Trentin, Skiba, Shibli, & De Carli, 2021; Critchlow & Ellis, 2010). The doctor should know what effect the sick person's body has on his/her mind and behavior to establish a satisfactory doctor-patient relationship. Therefore, the patient should be considered with a general and comprehensive view so that the treatment becomes general and comprehensive (Razmi & Talari, 2004).

Satisfaction means giving enough information to patients to make an informed decision and maintain their autonomy. The patient should be satisfied before any medical/dental procedure. Professional supervisory bodies and other professional organizations regularly issue detailed guidelines on this process (Hajivassiliou & Hajivassiliou, 2015). Different studies have investigated the satisfaction level of clients in medical and dental treatment centers. A review study (Ebn Ahmady, Pakkhesal, Zafarmand, & Lando, 2015) found that determining the dimensions used in dental clinic patient satisfaction surveys helps provide the highest quality of care. Hatami, Khanzadeh, and Lotfi Kamran (2020) have reported average satisfaction scores optimal in pain, accessibility, and quality of treatment. Therefore, the patient's confidence in his/her doctor's behavior and characteristics affect the acceptance of dentures (Oweis, Ereifej, Al-Asmar, & Nedal, 2022). The patient's view of complete dentures treatment is also important in his/her acceptance. Many patients have unrealistic expectations about dentures' functional and aesthetic aspects. Researchers have recommended that the dentist create realistic expectations in the patient during the treatment (Smith & McCord, 2004; van Waas, 1990).

Body image is among the variables that can play a role in the level of satisfaction with complete dentures (Epifania, Sanzullo, Sorrentino, & Ausiello, 2018). Every person has a mental image of his/her body, which is the main element that creates his/her personality. Body image includes one's behavior, feelings, and self-worth, and how one's appearance and feelings regarding regarding her/himself form one's body image( Danesh & Foroozandeh, 2018). When a person considers his/her appearance to be lower than desirable or ideal, he/she may have inappropriate feelings and attitudes toward him/herself, such as low self-esteem, self-confidence, or depression (American Psychiatric Association, 2013).

Fathima Banu, Kumar, and Veeravalli (2021) showed that a person's perception of their body image affected their level of satisfaction with their dentures, and the shape rating scale helps in identifying the patient's psychological characteristics. In addition to body image, early maladaptive schemas can also affect the patient's satisfaction with complete dentures. Early maladaptive schemas are pervasive patterns of memories, emotions, cognitions, and physical feelings about oneself and relationships with others (Rashidi, Ahmadian, Tabaqian, & Ahmadi Tahour Soltani, 2017). They are formed during childhood or adolescence, persist throughout a person's life, and are highly dysfunctional. Early maladaptive schemas perpetuate themselves through cognitive distortions, self-harming patterns, and maladaptive opposing styles, and directly or indirectly lead to psychological distress and disease

satisfaction (Thimm, 2010). Young (1999) believes that those schemas mainly formed due to unfortunate childhood experiences may be the central reason for milder personality disorders, behavioral problems, and many chronic disorders. He believes that healthy individuals also have early maladaptive schemas, but they take an exaggerated and extreme form in the clinical population (Young, 1999). Monirifard, Abolhasani, Tahani, Fathi, and Choobdaran (2019) found that people's personality traits significantly affected their satisfaction with treatment services and doctors who were more responsible. Other studies have also shown that people with psychological problems and low quality of life (QOL) were less satisfied with implant dentures (Sargozaie, Moeintaghavi, & Shojaie, 2017; Kiyak, Beach, Worthington, Taylor, Bolender, & Evans, 1990). Moreover, studies have shown that early maladaptive schemas are related to a wide range of interpersonal problems (Dozois, Martin, Bieling, 2009; Lapsekili, Haciomeroglu, Sutcigil, & Turkcapar, 2012). Hitherto, there have been no internal and external studies concerning early maladaptive schemas or body image and the level of satisfaction with complete dentures, and our study is an attempt to fill this research gap and to help patients with complete dentures. Therefore, the researcher seeks to find whether early maladaptive schemas and body image play a role in the level of satisfaction with complete dentures.

#### Methods

The present research was a descriptive correlational study. This study's statistical population included all applicants for complete dentures, referring to the dental clinic of Islamic Azad University of Tabriz, Iran, in 2021-22, from among which, 168 people were selected through convenience sampling method. The sample size was determined using Cochran's formula. The research was performed after obtaining the approval of the Ethical Committee of Islamic Azad University-Tabriz branch with the ethical code number IR.IAU.TABRIZ.REC.1400.032 and presenting it to the dental clinic officials. The study inclusion criteria included consent to participation in the study and cooperation, lack of acute mental problems, lack of addiction, the need for complete dentures confirmed by a specialized dentist after medical procedures, lack of specific gum disease, and the necessity for complete dentures. The exclusion criterion was unwillingness to participate in the tests. The Young Schema Questionnaire-Short Form (YSQ-SF), Body Image Concern Inventory (BICI), and Dental Satisfaction Questionnaire (DSQ) were distributed among the applicants after explaining the study's objectives to each participant. They were asked to read each scale's questions carefully, choose the answers, and not leave any questions unanswered according to their characteristics to the extent possible. Then, the questionnaires were completed.

Young Schema Questionnaire-Short Form: Young created this 75-item questionnaire to evaluate 15 primary maladaptive schemas. These schemes have five areas: the schema of disconnection and rejection, the schema of impaired autonomy and performance, the schema of impaired limits, the schema of other-directness, and over-vigilance. Each question is scored on a 6-point scale ranging from 1 (completely false) to 6 (completely true). All five questions measure a schema in this questionnaire. The scheme is ineffective if the average of each subscale is higher than 25. Several studies have proven this tool's reliability and validity (Ahi, 2005). Ahi (2005) has standardized this questionnaire in Iran. Using Cronbach's alpha, the internal consistency has been determined to be 0.97 in the female population and 0.98 in the male population. The calculated Cronbach's alpha coefficient in the present

study in the area of disconnection and rejection, impaired autonomy and performance, impaired limits schema, over-directness schema, and inhibition and over-vigilance schema was 0.75, 0.96, 0.84, 0.86, and 0.91, respectively.

Body Image Concern Inventory: Littleton, Axsom, and Pury created the BICI in 2005, which consists of 19 items. The items are scored on a 5-point Likert scale ranging from 1 (never) to 5 (always). This questionnaire has two components: 1. dissatisfaction and embarrassment of one's appearance, and 2. concern interference. This questionnaire's validity and reliability were calculated in a research conducted on students (Littleton et al., 2005). This questionnaire's validity (validity coefficient) has been reported through the regular calculation of the 19-item body image scale with self-reporting of the Body Dysmorphic Disorder Symptom Scale (BDD-SS)), which is significant (p = 0.01) and r = 0.83. The methods of Cronbach's alpha and halving were used to determine the reliability of the BICI in Iran, which are 0.86 and 0.90 for the whole questionnaire, respectively, which are favorable (Riahi, 2011).

Dissatisfaction and embarrassment of one's

The research results showed that the reliability of this questionnaire using Cronbach's alpha method is 93%, and the correlation of each item with the total is between 32% and 73%, which indicates this test's acceptable reliability level.

Dental Satisfaction Questionnaire: The Rand institute designed this questionnaire which includes 19 questions. The questions are scored on a Likert scale ranging from 1 (completely disagree) to 5 (completely agree). The scores of all questions should be summed to be get total score of dental satisfactio. The maximum satisfaction score was 95, and the minimum was 19, calculated based on 100. The average satisfaction score of referring patients was classified into 4 scales based on 100. Therefore, a score of less than 25 was considered very unfavorable satisfaction, 25-50 was unfavorable, 50-75 was favorable, and 75-100 was very favorable. Pakdaman, Khormali, and Shamshiri (2014) confirmed its validity and reliability.

Descriptive statistical indices (such as mean and standard deviation) and inferential statistical indices such as Pearson's correlation coefficient and multiple regression were used to describe the data of this research. The data were analyzed using SPSS software (version 26; IBM Corp., Armonk, NY, USA).

#### Results

Descriptive results showed that 95 students (56.54%) were men and 73 (43.45 %) were women. The descriptive statistics of the research variables are provided in table 1.

The mean scores of the components of early maladaptive schemas, body image concern, and satisfaction are presented in table 1. A multiple regression test was used to assess the significance of the relationship between the components of early maladaptive schemas and the level of satisfaction with complete dentures among the patients referred to the dental clinic of Azad University of Tabriz. Before presenting the regression analysis, we tested the assumptions of the regression test and the results showed that the assumption of independence of error sources of the studied variables and components were met, because the index related to the Durbin-Watson test was within the desired range (1.5-2.5). Furthermore, the results of the variance inflation factor (VIF) and tolerance test showed that there is no collinearity. The results of the matrix correlation test showed that the relationship between the research components and patient satisfaction was negative and significant, the correlation coefficient of all components with patient satisfaction was not higher than 0.7, and all components can be included in the regression test.

**Table 1.** Descriptive statistics of early maladaptive schemas, body image, and satisfaction

ible 1. Descriptive statistics of early maradaptive schemas, body image, and satisfaction							
	Mean ± SD	Skewness	Kurtosis				
Failure	$12.15 \pm 5.00$	-0.055	-0.911				
Defectiveness/shame	$12.98 \pm 5.01$	0.333	-0.741				
Emotional deprivation	$12.37 \pm 4.62$	0.039	-0.876				
Insufficient self-discipline	$13.33 \pm 5.34$	0.111	-1.010				
Vulnerability to harm	$13.13 \pm 4.70$	-0.261	-0.701				
Entitlement/grandiosity	$13.34 \pm 4.80$	-0.165	-0.705				
Enmeshment/undeveloped self	$12.67 \pm 4.23$	0.098	-0.497				
Mistrust/misbehavior	$11.78 \pm 4.62$	-0.034	-0.785				
Emotional inhibition	$14.45 \pm 4.94$	-0.329	-0.471				
Social isolation/alienation	$11.57 \pm 3.67$	0.318	1.080				
Self-sacrifice	$13.65 \pm 6.33$	0.039	-0.858				
Abandonment/instability	$12.16 \pm 4.37$	-0.050	-0.638				
Subjugation	$13.22 \pm 4.81$	0.007	-1.050				
Unrelenting standards	$11.03 \pm 4.19$	0.403	-0.476				
Dependence/incompetence	$13.14 \pm 5.40$	0.158	-0.592				
Early maladaptive schemas	$189.99 \pm 50.55$	-0.244	-0.764				
Dissatisfaction and embarrassment of one's appearance	$31.88 \pm 9.43$	-0.187	-1.080				
Concern Interference	$26.52 \pm 7.68$	-0.203	-0.994				
Body Image	$40.58 \pm 13.38$	-0.194	-0.692				
Satisfaction	$45.73 \pm 24.73$	-0.097	-1.290				

SD: Standard deviation

As observed in table 2, the F ratio and its significance level indicate the significant effect of the components in the regression equation. At this stage, the regression effect was obtained as F=3.39, which is significant at the 0.001 level, and adjusted R2 was 0.177 based on these components. This means that these 15 components (failure, defectiveness /shame, emotional deprivation, insufficient self-discipline, entitlement/grandiosity, enmeshment/undeveloped self, subjugation, vulnerability to harm, mistrust/misbehavior, emotional inhibition, social isolation/alienation, self-sacrifice, abandonment/instability, unrelenting standards, and dependence/incompetence) together explain 17.7 of the variance of the patient satisfaction variable.

Based on the coefficients and significance level listed in table 3, there is a significant relationship between the components of failure, defectiveness/shame, emotional deprivation, entitlement/grandiosity, emotional inhibition, abandonment/instability, subjugation, and dependence/incompetence and patient satisfaction. This means that the lower the scores of the early maladaptive schemas are, the lower the patient's satisfaction is. In addition, there was no significant relationship between insufficient self-discipline, vulnerability untransformed/trapped self, mistrust/misbehavior, social isolation/alienation, selfsacrifice, and unrelenting standards and satisfaction. A multiple regression test was used to check the significance of the relationship between the components of body image and the level of satisfaction with complete dentures among patients referred to the dental clinic of Azad University of Tabriz.

**Table 2.** Summary of the results of the amount of explained variance and the significance of the model, and the results of the regression analysis table

Index	$\mathbb{R}^2$	Adjusted R <sup>2</sup>		Standard	error of estimate
1. 0.501	0.251	0.177			22.43
Index	SS	df	MS	F	P-value
Between-group	25627.644	15	1708.5	3.394	0.001
Intergroup	76523.625	152	503.445		
Total	102151.269		167		

df: Degrees of Freedom; SS: Sum of squares; MS: Mean square

Table 3. Standardized and unstandardized coefficients of the components of early

maladaptive schemas with patient satisfaction

Model	Beta unstandardized coefficients	Standard error	Beta standardized coefficients	t	P- value
Fixed	48.91	7.490		6.53	< 0.001
Failure	-1.10	0.443	-0.225	-2.49	0.014
Defectiveness/shame	-1.37	0.437	-0.279	-3.15	0.002
Emotional deprivation	0.562	0.476	-0.105	-1.18	0.024
Insufficient self-discipline	0.355	0.550	0.077	0.645	0.520
Vulnerability to harm	0.265	0.600	0.051	0.442	0.659
Entitlement/grandiosity	-0.317	0.697	-0.062	-0.455	0.650
Enmeshment/undeveloped self	0.654	0.559	0.112	1.16	0.244
Mistrust/misbehavior	-1.64	0.638	-0.308	-2.57	0.011
Emotional inhibition	0.149	0.620	0.030	0.241	0.810
Social isolation/alienation	-1.86	0.702	0.278	2.66	0.009
Self-sacrifice	-0.341	0.481	0.087	-0.709	0.479
Abandonment/instability	1.87	0.720	0.331	2.60	0.010
Subjugation	-1.35	0.529	-0.264	-2.56	0.011
Unrelenting standards	0.202	0.613	0.034	0.329	0.743
Dependence/incompetence	1.123	0.579	0.246	1.94	0.049

Based on table 4, the F ratio and its significance level indicate the significant effect of the variables in the regression equation. At this stage, the regression effect was obtained as F = 12.72, which is significant at the 0.001 level, and adjusted R2 was 0.123 based on these components. This means that the 2 components of dissatisfaction with and embarrassment of one's appearance, and concern interference together explain 12.3 of the variance of the patient satisfaction variable.

#### Discussion

The present study investigated the role of early maladaptive schemas and body image in the level of satisfaction with complete dentures.

The results showed that there was a significant relationship between the early maladaptive schemas and satisfaction with complete dentures among those who referred to the dental clinic of Azad University of Tabriz. The results showed a significant relationship between the components of the early maladaptive schemas (failure, defectiveness/shame, social isolation/alienation, abandonment/instability, subjugation, and dependence/incompetence) and the level of satisfaction with complete dentures among patients who referred to the dental clinic of Azad University of Tabriz. In addition, there was no significant relationship between the components of primary maladaptive schemas (emotional deprivation, insufficient self-discipline-inadequacy, vulnerability to harm, entitlement/grandiosity, enmeshment/undeveloped self, emotional inhibition, self-sacrifice, and unrelenting standards) and the level of satisfaction with complete dentures among patients who referred to the dental clinic of Azad University of Tabriz.

**Table 4.** Summary of the results of the explained variance value and the significance of the model, and the results of the regression analysis table

Index	$\mathbb{R}^2$	Adjusted R <sup>2</sup>		Standard er	ror of estimate
1. 0.366	0.134	0.123		23.15	
Index	SS	df	MS	F	P-value
Between-subjects	13653.218	2	6826.609	12.728	< 0.001
Within-subjects	88498.051	165	536.352		
Total	102151.269		167		

df: Degrees of Freedom; SS: Sum of squares; MS: Mean square

Table 5. Standardized	and	unstandardized	coefficients	of	body	image	components	with
patient satisfaction								

Model	Beta unstandardized coefficients	Standard error	Beta standardized coefficients	t	P- value
Fixed	85.15	8.05		10.56	< 0.001
Dissatisfaction and embarrassment of	-0.520	0.194	-0.199	-2.67	0.008
one's appearance					
Concern interference	-0.861	0.239	-0.268	-3.60	< 0.001

There has been no research in the this area, but it is consistent in a coherent and scattered way with the findings of others such as Fathima Banu et al. (2021), Monirifard et al. (2019), Seenivasan, Banu, Inbarajan, Natarajan, Natarajan, and Anand (2019), Elsyad, Elgamal, Mohammed, and Youssef Al-Tonbary (2019), Epifania et al. (2018), Hatami et al. (2020), Marchini (2014), and Quran, Clifford, Cooper, and Lamey (2001) regarding the significance of the components of the maladaptive schemas in this research.

To explain the finding that the component of failure has a negative relationship with patient satisfaction, it can be said that patients' scores of failure were average, and satisfaction among them was below average. Some patients had failed to establish emotional relationships, friendships, and social status. Compared to others, they viewed themselves as crazy, ignorant, or unsuccessful people and believed they were inherently deprived of the ability to succeed and self-reliance. Believing in failure and constantly repeating this thought lead to disturbing thoughts, pretending and decreasing satisfaction. Martin and Tesser (1996) proposed the theory that people do not receive clear and consistent feedback about their progress toward their goals. Therefore, to obtain such feedback, they engage in psychological activities to reformulate alternative methods, reevaluate the goal desirability, and restructure the behavior related to the goal, which results in dissatisfaction when faced with failure and lack of success.

Regarding the significant relationship between defectiveness and shame and patient satisfaction, it is said that these patients show more disturbances in interpersonal relationships. People who chronically and repeatedly deal with negative automatic thoughts behave in a retaliatory manner in their relationships with family, friends, and even strangers (Blair et al., 2007). Retaliatory behavior also causes patient dissatisfaction.

Regarding the significant relationship between social isolation and patient satisfaction, it is said that these people lean inward instead of receiving help and support from others due to weakness in interpersonal relationships. They also consider involvement and stubbornness as a way to help them solve their problems. Getting more involved and disagreeing leads to distance from others and more social isolation for these people (Lin & Ensel, 1999). Young's theory states that disturbing thoughts and dissatisfaction arise from the formation and persistence of non-adaptive schemas (Young, 2019).

Regarding the significant relationship between abandonment and patient satisfaction, it is said that patients who experience loneliness, isolation, and rejection feel abandoned and suspended without receiving love and support from their family family, lose their sense of self-worth, and do not feel secure in critical times. Therefore, behavioral inhibition shows that this issue predicts his/her maladaptive behaviors (Dehshiri, 2012). Thus, this schema causes patients to avoid social

situations (Ghamkharfard, 2012). These people also seek to satisfy their unfulfilled needs during childhood and experience significant incompatibility due to their inability to respond to these needs. Adolescents whose basic needs, such as security, stability, and support, are not met are at greater risk of experiencing dissatisfaction (Young, 2003).

Regarding the significant relationship between subjugation and patient satisfaction, it is said that there are patients who allow others to dominate them. They submit to others' control because they feel that if they do not they will be pressured through rejection or abandonment or that their work will not be done correctly. This issue is to avoid anger, deprivation, or revenge, which is one of the reasons for disturbing thoughts and avoiding anger and deprivation. Researchers concluded that the subjugation schema, which is submitting to the control of others to avoid rejection or liberation, and the approval-seeking schema, which is associated with the extreme desire to seek others' approval, can lead to mental illness and aggravate the signs and symptoms of depression and anxiety, and cause dissatisfaction (Calvete et al., 2014).

Regarding the significant relationship between mistrust/misbehavior and patient satisfaction, it is said that mistrust/misbehavior is the feeling that others are hitting us, misbehaving, and telling lies. These people do not trust others' correctness and honesty and are worried about this issue. They are suspicious of others, distance themselves from them, and do not want to establish intimate relationships. Therefore, they are more dissatisfied and maladaptive (Mehrabinia & Shamsaee, 2018).

There is also a significant relationship between the dependence/incompetence component and patient satisfaction. Individuals with this schema believe they cannot meet their daily responsibilities without others' without enough help from others and consider themself incompetent in dealing with problems. This state often manifests as helplessness, constant processing and preoccupation with intrusive thoughts about inadequacy, and focusing on dependency issues and the individual's past (Young, 2014).

There are no significant relationships between the components of emotional deprivation, insufficient self-discipline-inadequacy, vulnerability to harm, entitlement/grandiosity, enmeshment/ undeveloped self, emotional inhibition, self-sacrifice, and unrelenting standards with satisfaction due to the time limit, the small number of samples, and the lack of correct answers from the patients. Each symptom of psychopathology is associated with one or more primary maladaptive schemas. Researchers define the primary maladaptive schemas as inefficient mechanisms, which are directly or indirectly related to various disease symptoms and lead to psychological distress (Roshandel, Sobhi Gharamaleki, & Tayyebi, 2016). Young's theory states that early maladaptive schemas stimulate negative automatic thoughts, mental discomfort, and severe dissatisfaction and are the main reason for personality disorders, behavioral problems, and many mental disorders (Young, 2006).

The results also showed a significant relationship between the components of body image (dissatisfaction with and embarrassment of one's appearance, and concern interference) and level of satisfaction with complete dentures in patients who referred to the dental clinic of the Azad University of Tabriz. These findings are consistent with the findings of Fathima Banu et al. (2021), Marchini (2014), Hatami et al. (2020), and Donnelly and MacEntee (2011).

Fathima Banu et al. (2021) investigated the understanding of body image and its psychological effect on satisfaction with dentures. They found that the person's perception of body image affected his/her satisfaction with dentures. Donnelly and

MacEntee (2011) investigated social interactions, body image, and oral health among frail institutionalized elderly individuals: an unexplored relationship. This study used elderly people's opinions and theoretical studies in the form of interviews. The results showed a relationship between oral health and social interactions, social well-being, and body image; the lower the social interactions and body image concerns were, the lower the patient's satisfaction with oral health was (Orang, Hashemi Razini, & Abdollahi, 2017).

In explaining these results, it can be stated that patients who are worried about their body image and appearance are dissatisfied because their inappropriate dentures are accepted in society and attract everyone's attention. They will also have negative evaluations of themselves, whether their teeth are too ugly or what people think about their artificial teeth. In other words, patient dissatisfaction increases due to negative perception of and concern about the appearance of artificial teeth. Society and the media impose an ideal of beauty on people regarding teeth and body, which has many messages that equate people and their attractiveness with appropriateness (Hughes, Alloy, & Cogswell, 2008), and it is a constant source of tension and anxiety which often leads a person to fail. These people force themselves to be perfect, which leads them to choosing ineffective and incompatible coping methods. Due to having these beliefs, they constantly go to the dentist due to the appearance of their complete dentures (my teeth are loose, or my teeth are not attractive) in order to relieve their anxiety and tension and increase their self-esteem, which has costs and further increases their dissatisfaction.

The current research had some limitations like other researches. For example, the statistical population was limited to applicants for complete dentures referring to the dental clinic of Islamic Azad University of Tabriz. The participants' attitude in the questionnaires, their cooperation with the researcher, and their honesty and interest in answering the questions are among the factors which were beyond the researcher's control and could have affected the research results. Therefore, it is suggested that future research be conducted on other communities in other dental universities, the results be compared between men and women, and other data collection methods such as organized interviews and case studies be used.

### Conclusion

Therefore, it is concluded that early maladaptive schemas and body image can predict patients' satisfaction with complete dentures at the dental clinic of Islamic Azad University. As mentioned, early maladaptive schemas and body image increase patients' dissatisfaction. Therefore, they are considered to be risk factors. In this study, the level of scientific consequences showed that more attention should be paid to early maladaptive schemas and body image as factors influencing patients' satisfaction. Therefore, identifying this psychological structure in patients referring for complete dentures can be the first step in preventing the adverse consequences of patients' dissatisfaction with dental services. Another practical measure to increase patient satisfaction at the community level is preparing and formulating treatment and educational programs to reduce and control early maladaptive schemas and body image concerns.

#### **Conflict of Interests**

Authors have no conflict of interests.

## **Acknowledgments**

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