

Anxiety level and Difficult Patients in Prosthodontic Clinic

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Abstract: Background: In recent years, psychological factors such as anxiety have increased. The psychological status of an individual is an effective stimulus for unexpected behavior. Purpose: Evaluate the anxiety level for normal and difficult patients in prosthodontic clinic, and the relationship between anxiety level and the difficult patient. Determine the factors can increase the occurrence of difficult patients in the clinic. Material and method: One hundred patients, 65 male and 35 female, in the age range 30-65 years were randomly selected for the study. The State-Trait Anxiety Inventory (STAI) was used to measure the anxiety level of the selected sample. The difficult patients were identified and classified according to Graves's classification. Result: anxiety was influenced by the patients' age, behavior and social problems. Patients aged less than 50 had higher anxiety levels than patients aged 50 years or over. The anxiety score for patients with abnormal behavior was higher than for patients with normal behavior. The social problems were a factor which increased the anxiety scores. The anxiety scores for difficult patients were higher than for normal patients, but this difference was statistically insignificant. The patients' behavior and social problems were the main factors for creating the difficult patient (P-values < 0.05 were considered significant). Conclusion: The adult patients (age group less than 50 years) had higher anxiety levels than the old patients. The anxiety scores for difficult patients were higher than for normal patients. The patients' behavior and social problems were the main factors for creating the difficult patient. [Amal A. El Sawy **Anxiety level and Difficult Patients in Prosthodontic Clinic**] Journal of American Science 2012; 8(1):258-263]. (ISSN: 1545-1003). <http://www.americanscience.org>. 38

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1. Introduction

The last twenty years has seen an increase in the study of the difficult patient¹⁻³. The prevalence of difficult patients in the dental and medical field is estimated to be 15 -25 percent of patients^{4,5}. There are many factors that increase the occurrence of difficult patients during prosthetic management. Many appointments and long management time increased the factors.

The difficult patient can be defined as one who takes up a considerable amount of time, causes distress to the doctor, and impedes the clinician's ability to establish a therapeutic relationship^{6,7}. Also, defined as a person who does not assume the patient role as expected by the healthcare professional⁸. Words used to explain the difficult patient are: rude, hateful, inappropriate, demanding, cocky, bossy and angry. Difficult patients have common characteristics such as multiple unexplained symptoms, frequent attending, breaking doctor-patient boundaries, non-compliance (including treatment), hostility and signing out, litigious or manipulative. Sometimes they have a personality disorder (borderline or dependent) and may have chronic medical disorders or social disabilities^{9,10}. They often have unrecognized psychiatric problems^{4,5,11}. The patients with anxiety or borderline personality disorders may present multiple physical and somatic complaints. These patients may have a strong negative emotional

reaction¹². They are inflexible, with a maladaptive style of perceiving themselves or interacting with others and may contribute to difficult doctor-patient relationships¹³⁻¹⁵.

Any patient classification system in dentistry should provide practitioners with information about the course of treatment and the expected difficulties. Sixty years ago, M.M. House, mentioned difficult patients and classified the edentulous patients on the basis of how they behaved in response to becoming edentulous and how they subsequently adapted to wearing complete dentures¹⁶. The American College of Prosthodontists has developed a classification system for complete edentulous patients. This is based on diagnostic findings, representing an uncomplicated and complicated clinical situation¹⁷. Also some research has mentioned a complexity index. This reflects variations in individual patients, prosthetic designs and the difficulties that can occur during the treatment.^{18,19} In spite of the benefits of the presented classifications that clarified the difficulties encountered by the prosthodontist based on diagnosis, clinical situation, and the experience and skill of the dentists, they ignored the psychological state of the patients which may be the main factors in creating difficult patients.

The aim of this study was to evaluate the anxiety level for prosthodontics patients, the relationship between the anxiety and difficult patients, and the

factors that could create the difficult patient.

2. Materials and Method

One hundred patients, 65 male and 35 female, in the age range 30-65 years were randomly selected for a longitudinal cohort study carried out between 2008 and 2009. All patients were taken from the student dental clinic, Prosthodontic Department, Faculty of Dentistry, Minia University, Egypt.

Oral, general examination and investigations were carried out for all patients. An examinations chart was prepared with full medical and dental history. The screening appointment was carried out by a staff member to determine if the patients needs were compatible with the educational proficiency of the students. The screening appointment included a comprehensive examination, in addition to a radiographic and psychological state examination. Suitability for the teaching program, the patient's health, complexity of existing dental needs and time availability for appointments were the influencing factors for acceptance to the student clinic. During the screening time, the staff concentrated on the service that could be received from the student clinic.

Once the screening appointment was completed and the patient accepted the student-clinic rules, the patient was referred to Patient Assignment. The assignment to a student dentist was based on potential treatment needs. The selected sample included 40 completely edentulous patients, 51 partially edentulous patients and 9 patients with maxillary single edentulous ridge.

The patients' behavior was observed and recorded during the screening appointment, treatment and follow up period by the staff members who supervised at the clinic.

The State-Trait Anxiety Inventory (STAI):

STAI was used for each patient to evaluate the psychological state. This comprises separate self-report scales given individually for measuring state and trait anxiety. The S-Anxiety scale (STAI Form Y1) consists of twenty statements that evaluate how respondents feel "right now, at this moment." The T-Anxiety scale (STAI Form Y-2) consists of twenty statements that assess how the respondents feel generally. The STAI-Y S-Anxiety and T-Anxiety scales are printed on opposite sides of a single-page test form.

For the STAI S-Anxiety scale, examinees mark the number on the standard test form to the right of each item-statement that best describes the intensity of their feelings: (1) not at all; (2) somewhat; (3) moderately so; (4) very much so.

For the T-Anxiety scale, examinees are instructed to indicate how they generally feel by rating the frequency of their feelings of anxiety on the following

four point scale: (1) almost never; (2) sometimes; (3) often; (4) almost always.

Each STAI item is given a weighted score of 1 to 4. A rating of 4 indicates the presence of a high level of anxiety for ten S-Anxiety items and eleven T-Anxiety items (e.g., "I feel frightened," "I feel upset"). A high rating indicates the absence of anxiety for the remaining ten S-Anxiety items and nine T-Anxiety items (e.g., "I feel calm," "I feel relaxed"). The scoring weights for the anxiety-present items are the same as the blackened numbers on the test form. The scoring weights for the anxiety-absent items are reversed, i.e., responses marked 1, 2, 3, or 4 are scored 4, 3, 2, or 1.

The anxiety-absent items for which the scoring weights are reversed on the S-Anxiety and T-Anxiety scales are:

S-Anxiety: 1, 2, 5, 8, 10, 11, 15, 16, 19, 20

T-Anxiety: 21, 23, 26, 27, 30, 33, 34, 36, 39

The scores for the S-Anxiety and T-Anxiety scales can be obtained by simply adding the weighted scores for the twenty items that make up each scale, taking into account the fact that the scores are reversed for the above items. Scores for both the S-Anxiety and the T-Anxiety scales can vary from a minimum of 20 to a maximum of 80. A cut-off point of scores >40 was selected for both S-and T-STAI. STAI was evaluated for each patient at the scanning appointment.

Patients' behavior evaluation:

The behavior of the selected sample was evaluated and recorded by the dental student and the supervisor of the clinic during the study period. The patient behavior was explained as normal or abnormal. If the behavior was abnormal, it was written about in detail.

Difficult patient identification:

The abnormal behaviors were reevaluated to identify the difficult patients. The difficult patients were identified and classified according to Groves' classification⁹.

Clinical samples for difficult patients:

1. Male patient, 55 years old. Completely edentulous in the upper and lower jaws. During the treatment period, he asked about the possibility of eating with denture. The dentist student explained the limitation for using the denture, and the difference between natural teeth and complete denture. At the next appointment, the patient asked the same questions but in other words (what is the idea of constructing a denture if the denture does not replace the function of the natural teeth). After the patient received the denture, he came back and complained that the denture did not feel like the natural teeth.
2. Male patient, 43 years old. Partially edentulous

jaws. During one of the treatment appointments, the dentist arrived late and the patient waited half an hour more than was expected. The patient became angry and went to complain. During the observation, the patient had a raised voice, and was angry at all times during observation.

3. Female patient, 50 years old. Partially edentulous mandibular jaw. During the examination, she brought a plastic bag full of previously constructed dentures.

The patient said that she went to many doctors in private clinics for treatment. She did not get good results from the partial dentures that were constructed previously. She mentioned that her friend advised her to come to the patient's clinic of the faculty of dentistry.

Statistical analysis:

Data management and analysis were performed using Statistical Analysis Systems (SAS, ver8.2). Comparisons between the means of two groups were made using student's t-test. Chi-square test was used to compare percentages. All p-values are two-sided. P-values < 0.05 were considered significant.

3. Result

Descriptive statistics were presented in the form of means and standard deviations. Anxiety scores in relation to different variables: age groups, sex, different treatments, patient behavior, systemic diseases, and social problems were evaluated.

Table 1 lists the mean values and standard deviation for The STAI- S and T-Anxiety scores with the previous different variables. There was a statistically significant difference between anxiety scores and different patients' age groups, patient behavior and social problems. The patients in the below 50 years age group had a higher anxiety level than patients in the 50 years or more age group. The mean of STAI- S was 41.5 and the mean of STAI-T was 42.3 for patients in the below 50 years age group. For patients in the 50 years and over, the mean of STAI- S was 32.5 and STAI- T was 32.7.

The mean anxiety score for patients with abnormal behavior was 45.9 for STAI-S, and 46.9 for STAI-T. The patients with normal behavior had low anxiety scores. The mean of STAI- S was 32.4 and STAI- T was 32.7.

Social problems were factors in the increasing anxiety scores. The mean of STAI- S was 43.7 and STAI- T was 46.1 for the patients with social problems.

There was no statistically significant difference between anxiety scores and patients with different gender, treatment modalities and systemic diseases.

Table 2 lists the mean values and standard deviation for the STAI-S and T-Anxiety scores for normal and difficult patients. The anxiety scores for difficult patients were higher than for normal patients. The mean of STAI- S and T-Anxiety scores for difficult patients was 40.7 and 41.8. The mean of STAI-S and T-Anxiety scores for normal patients was 35.3 and 35.6. In spite of the difference between the anxiety scores between normal and difficult patients, there was no statistically significant difference.

Table 3 and 4 list the mean values and standard deviation for normal and difficult patients with the various factors that could increase the occurrence of difficult patients. The results showed that age, sex, treatment modalities and systemic diseases had no statistical significant influences on creating the difficult patient. On the other hand, the patients behavior and social problems had statistically significant influences.

4. Discussion

The increase of difficult patients in the clinics was a point of controversy. There are many discussions about the reasons for difficult patient. The difficult patient may be the result of doctor-patient relationship failure, including poor communication with the patient and not recognizing the patient's needs. Sometimes the healthcare system may contribute to the problems. Lack of attention and adequate time spent with the patient may increase the problem²⁰. Also, the patients with personality disorders have the same criteria as difficult patients; like excessively dependent, demanding, manipulative, or seductive^{21,22}. Here, before labeling the patient as a difficult patient, all the negative previous factors were eliminated.

In order to identify the difficult patients, firstly, identify the source of the problem. Is it primarily due to the patient, the dentist, or the patient-dentist relationship, or to the healthcare system?

In the present study, the dentist students were trained to manage the patients and create good communication by improving listening and understanding patient wants, improving the partnership with the patient, improving skills of expressing negative emotions, Increasing empathy; ensuring an understanding of the patient's emotional responses to condition and care, and negotiating the process of care²³. The problems related to the healthcare system were eliminated by the screening appointment and patient assignment²⁴.

In clinical and experimental research, the STAI has proven useful for identifying persons with high levels of anxiety. The STAI was carried out at the screening appointment to determine patients with personality disorders or high anxiety levels²⁵.

Table (1). Anxiety scores in relation to different variables

		n	STAI s		STAI t	
			Mean	Standard Deviation	Mean	Standard Deviation
Age groups	<50yrs	39	41.5	6.9	42.3	7.3
	50+yrs	61	32.5	8.4	32.7	7.8
	P-value		<0.001		<0.001	
Sex	Male	65	36.9	8.8	37.5	8.9
	Female	35	34.4	9.0	34.5	8.8
	P-value		0.156		0.117	
Treatment	Complete	40	35.7	10.0	35.9	9.3
	Partial	51	36.2	8.7	36.7	9.3
	Single	9	36.8	5.5	37.0	4.2
	P-value		0.856		0.771	
pt behavior	Normal	86	34.4	7.7	34.7	7.5
	Abnormal	14	45.9	9.9	46.9	9.9
	P-value		<0.001		<0.001	
Systemic disease problems(SDP)	No (SDP)	82	36.0	8.0	36.5	7.9
	(SDP)	18	35.9	12.7	36.1	13.0
	P-value		0.676		0.650	
Social problems(SoP)	No (SoP)	90	35.2	8.3	35.4	8.0
	(SoP)	10	43.7	10.8	46.1	11.0
	P-value		0.005		0.001	

* P-value < 0.05 is considered significant n: number of patient.

Table (2). The anxiety scores for normal and difficult patients.

	Normal (n=87)		Difficult (n=13)		P-value
	Mean	Standard Deviation	Mean	Standard Deviation	
pt age	52.5	8.1	50.1	11.8	0.601
STAI s	35.3	8.4	40.7	11.0	0.052
STAI t	35.6	8.3	41.8	11.4	0.037

* P-value < 0.05 is considered significant n: number of patient.

pt age: patient's age

Table (3): The factors that increase the occurrence of the difficult patient(Age and sex).

		Normal pt	Difficult pt	Total	P-value
Age groups	<50yrs	31	8	39	0.074
		79.5%	20.5%	100.0%	
	50+yrs	56	5	61	
		91.8%	8.2%	100.0%	
Sex	Male	57	8	65	0.765
		87.7%	12.3%	100.0%	
	Female	30	5	35	
		85.7%	14.3%	100.0%	

* P-value < 0.05 is considered significant Pt: patient

Table(4): The factors that increase the occurrence of the difficult patient (treatment modalities, patient's behavior, systemic diseases and social problems).

Treatment Modalities		Normal (n=87)	Difficult (n=13)	P-value
Treatment Modalities	Complete	35	5	
		40.2%	38.5%	
	Partial	43	8	
		49.4%	61.5%	
Pt behavior	single	9	0	
		10.3%	.0%	0.432
	Normal	81	5	
		93.1%	38.5%	
Systemic diseases	Abnormal	6	8	
		6.9%	61.5%	<0.001
	No systemic	75	7	
		86.2%	53.8%	
Social problems	Systemic	12	6	
		13.8%	46.2%	0.012
	No Social problem	84	6	
		96.6%	46.2%	
Total	Social problem	3	7	
		3.4%	53.8%	<0.001
		87	13	
		100.0%	100.0%	

* P-value < 0.05 is considered significant; n: number of patient.

Lack of familiarity with personality disorders may well contribute to the problem and increase the factors which create the difficult patient²⁶.

The patient behavior evaluation and STAI gave accurate data on the patient personality to easily determine the problem sources and define the best way for management^{27,28}. Here, the dentist should appreciate the purposefulness of the patient's defensive character and logical behavior, in order to improve communication²⁹.

The age of the patient, abnormal behavior, and social problems were the main factors for increasing the anxiety scores. Based on previous research, it was expected that older patients would show more anxiety than adults^{30,31}. The present results revealed significant age differences in anxiety. The adults' patients (age group less than 50 years) had higher anxiety levels than old patients (age group 50 years or more). Even though the age of the patient influenced the anxiety scores, it had no influence in creating the difficult patient.

The present study clarified that behavior and social problems were the main factors for creating difficult patients.

Anxiety is a normal reaction to stress. Stress may be cognitive, emotional, physical or behavioral. An abnormal behavior like a nervous breakdown is termed as a severe emotional disorder that occurs very suddenly. This happens when a person undergoes a very stressful phase in life. There are a number of causes of nervous breakdown which include chronic

and unresolved grief, unemployment, academic problems, career failure, stress due to some reason such as post trauma, a serious or chronic illness in the family, death in the family, etc. The breakdown leads to anxiety disorder and includes several forms of abnormal behavior.

Social anxiety is a much more common problem than past estimates have led us to believe. Millions of people all over the world suffer from this devastating and traumatic problem every day of their lives. In the United States, epidemiological studies have recently pegged social anxiety disorder as the third largest psychological disorder³³.

Dealing with difficult patients can represent a significant burden in the clinic. It is more productive, however, to view this burden as a product of the interaction between dentist and patient, for which both have a responsibility, rather than attributing any problems encountered to shortcomings of the patient alone.³⁴ This study is a sample that can clarify the factors which create the difficult patient.

Conclusion

The adult patients (age group less than 50 years) had higher anxiety levels than older patients. The anxiety scores for difficult patients were higher than for normal patients. The patients' behavior and social problems were the main factors in creating the difficult patient.

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