Removable Denture Patient Awareness toward Dental Implants

Ahmed M. Nazar, B.D.S[1], Moamin I. Issa, B.D.S, Msc[2], Mina A. Abdulkareem, B.D.S[3],
Maryam A. AbdulKareem, B.D.S[4], Jwan A. Mohammed, B.D.S[5]

[1]College of Dentistry/University of Baghdad/Iraq

[2]Prosthodontic department/College of Dentistry/University of Baghdad/Iraq

[3, 4, 5]Oral diagnosis department/College of Dentistry/University of Baghdad/Iraq

Abstract: _Background: Today's modern implant dentistry appeals to a wide population. Willingness to have implant treatment and its success depends on patient knowledge and expectations as well as the care, skill, and judgment of clinicians. Since the introduction of dental implants, the efficacy of treatment has been confirmed by long-term clinical studies. Aim of the study: To assess removable denture patient awareness toward dental implants depending on the educational level of the patient. Materials and methods: a survey was conducted to determine the awareness of patients wearing removable prosthesis toward dental implant. A total of 100 patients were examined in the prosthodontics department after they were informed and gave their consent. A questionnaire with 7 questions was recorded including the basic information (age and gender), educational level of the patient, and did he/she has knowledge about dental implant and the source of this knowledge. The results were gathered and statistically analyzed using SPSS computer software. Results: A total of 100 subjects asked about the knowledge about implants, 61% had heard of implants as a treatment modality and dentists were the main source of information. The level of awareness increased with education. Conclusion: More than half of the questioned participants were aware of DIs as an option in replacing missing teeth (61%).Dentists were the main sources of information regarding dental implants among all participants._

Keywords: dental implant, education, awareness, partial denture

1. Introduction

Dental implants have been used to replace missing teeth for more than half a century. They are considered to be an important contribution to dentistry as they have revolutionized the way by which missing teeth are replaced with a high success rate. This success depends on the ability of the implant material to integrate with the surrounding tissue. However, this integration is influenced by several factors, such as implant material, bone quality and quantity, and the implant loading Condition Baig et al [1] Gokcen-Rohlig et al [2] ; Zupnik et al [3].

For dental implants to succeed, intimate contact between the peri-implant bone and the implant surface should be achieved and maintained. Therefore, an integration between the implant surface and the bone is required for the success of any implant system. This integration is known as osseointegration, and is defined as a direct structural and functional connection between ordered living bone and the surface of a load-carrying implant Branemark et al [4].

A dental implant is a device of biocompatible material(s) positioned within the mandibular or maxillary bone to offer additional or improved support for prosthesis Weiss et al [5].

Since the introduction of dental implants, long-term clinical studies have confirmed the efficacy of implant therapy Adell et al. [6]; Albrektsson et al [7].

Dental implants were originally used for the treatment of edentulous patients and are associated with improved denture retention, stability, functional efficiency, and quality of life Adell et al [6]; Albrektsson et al [7] .

Currently, dental implants are widely accepted as a prosthetic treatment of completely or partially edentulous patients Naert et al [8].

This led to widespread acceptance and popularity of dental implants within the dental professional community Berge [9].

2. Materials and methods

A questionnaire with 7 questions were recorded figure [1] including the basic information (age and gender), and information about the location of living, educational level of the patient, and did he/she has knowledge about dental implant and the source of this knowledge.

The patients were selected so that they have missing teeth in either of the arches and wearing a removable denture, with age range 20 - ≥50 years old, male and female patients and who was ready to participate in the study. The results were gathered and statistically analyzed using SPSS computer software (spss statistics version 2).

3. Results

When information was gained 58% were male and 42% were female participants

Regarding the age of the participants 2% were in age range (20-29), 8% were in age range (30-39), 23% were in age range (40-49), 67% were ≥50 years.

Regarding the location of living of the participants 96% live in urban areas and 4% in rural areas

Regarding the educational level of the participants 19% were illiterate, 27% with primary education, 17% with secondary

61% of participants had information about dental implant whereas, 39% had no information. Dentists were the main source of information regarding implants (38%), followed by friends (33%), media (TV, radio, newspaper, internet, etc.)(26%), and Books (3%)

This study show that there was a highly significant difference between the educational levels regarding the awareness (P=0.001) table [1]

1. Name
   a) Patient reference no.
2. Age
   a) 20-29
   b) 30-39
   c) 40-49
   d) $\geq$ 50
3. <u>Gender</u>
   a) Male
   b) Female
4. Location of living:
   a) Urban
   b) Rural
5. Educational Level
   a) Illiterate
   b) Primary Education
   c) Secondary Education
   d) Higher Education
6. Do you have information about implant therapy?
   a) Yes
   b) No
7. How do you get information about implant therapy?
   a) Books and journals
   b) Media (Television, radio, Internet)
   c) Friends
   d) Dentist

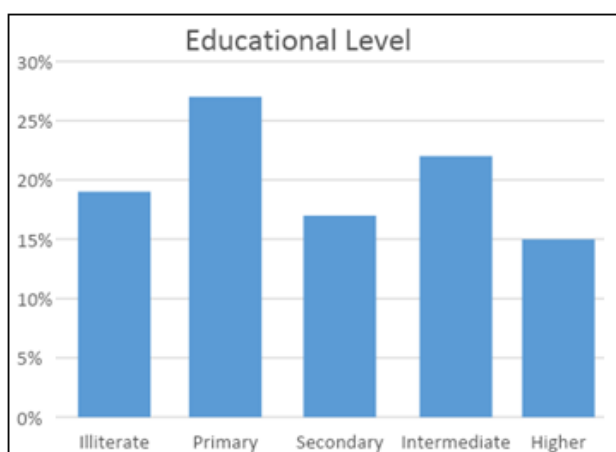**Figure 1:** Questionnaire with 7 questions

Figure 2: Percentage of participants according to educational level.

4. Discussion

The present survey gives information about subjects Awareness, Attitude, and Expectations toward Dental education, 22% with high school, and 15% with higher education figure [2].

Implants. Information which is available to the patients regarding the procedure and its success. This problem is more compounded in developing nations. In the present study, awareness regarding implants were among 61% participants which was compatible with other studies done by Zimmer et al [10]; Berge [9], and Tepper et al [11] which reported the level of awareness as 77, 70.1 and 72%, respectively but the results of the present study were very higher than Chowdhary et al [12].

In the present study it was found that dentists were the main source of information regarding implants which was similar to the findings of Johany et al [13] and Chowdhary et al [12]. This clearly indicates the lack of efforts by the governing bodies regarding taking necessary steps for creating awareness amongst the people. However, studies conducted by Zimmer et al [10], showed that media was found to be the main source of information about dental implants. Berge [9] and Best [14] also found that, the media was the main source of information; while dentists played a secondary role at best.

Considering the influence of education on Awareness toward dental implants, it was found that all the scores increased from illiteracy level to graduation level(a highly significant difference regarding the awareness as shown on the table [1], Similar findings were observed in a study conducted by Kaurani et al [15].

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Table 1: Crosstab and Chi-Square Tests of Education Awareness.

			Awarness		Total
			no	yes	
Education	illitrate	Count	13	6	19
		Expected Count	7.4	11.6	19.0
		% within Education	68.4%	31.6%	100.0%
		% within Awarness	33.3%	9.8%	19.0%
	primary	Count	15	12	27
		Expected Count	10.5	16.5	27.0
		% within Education	55.6%	44.4%	100.0%
		% within Awarness	38.5%	19.7%	27.0%
	secondary	Count	2	14	16
		Expected Count	6.2	9.8	16.0
		% within Education	12.5%	87.5%	100.0%
		% within Awarness	5.1%	23.0%	16.0%
	intermediate	Count	7	16	23
		Expected Count	9.0	14.0	23.0
		% within Education	30.4%	69.6%	100.0%
		% within Awarness	17.9%	26.2%	23.0%
	higher	Count	2	13	15
		Expected Count	5.9	9.2	15.0
		% within Education	13.3%	86.7%	100.0%
		% within Awarness	5.1%	21.3%	15.0%
Total		Count	39	61	100
		Expected Count	39.0	61.0	100.0
		% within Education	39.0%	61.0%	100.0%
		% within Awarness	100.0%	100.0%	100.0%
Pearson Chi-Square			Value	df	Asymp. Sig. (2-sided)
			19.610[a]	4	.001