Knowledge and Perception of Patients toward Teeth Whitening Treatment in Salah Aldeen

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Keywords

Dexamethasone, levobupivacaine, transverses abdominis plane block

Abstract

Strong tooth discoloration might present a significant aesthetic challenge, If left untreated, this discoloration may lead to psychological and social issues. The earliest attempts to whiten teeth date back longer than a decade and were primarily focused on finding a practical bleaching chemical to paint on stained teeth. Bleaching is regarded as a conservative aesthetic procedure for stained teeth, unlike laminate veneers or maybe all ceramic crowns which require an permanent tooth preparation.

Aim: The purpose of this study was to evaluate patient knowledge and attitudes concerning teeth whitening procedures and how those attitudes affected patients' decisions in Salahaddin city. Subject and methods: The current study, a cross-sectional survey, was conducted among the general population in Tikrit between November 15, 2021, and March 22, 2022

Results: The complete sample of study 303, 77.5% of female had got teeth whitening, while 33.7% of female experienced teeth whitening. 86.7% of those aged 30-35 years, 83.3% of those aged 25-29 years, 55.8% of those aged 20-24 years, 40% of those aged 15-19 years had undergone teeth whitening. 60.7% of patients are happy with their teeth appearance. 58.1% of patients are displeased with their teeth seem because of the color, 24% due to teeth appearance, 10.6% due to size, and 7.3% due to dental decay. 96.4% of patients have heard about teeth whitening. 45.5% of patients have undergone teeth whitening owing to improved esthetic, 27.1% due to tea and coffee.

1. Introduction

If left untreated, excessive tooth discoloration may constitute a serious visual issue and contribute to psychological and social difficulties [1]. The development of aesthetic ideals in today's culture is leading to a surge in the demand for cosmetic procedures, particularly among young people. Various dental bleaching procedures are accessible for clinicians and patients, including over-thecounter things, items used at home under a dentist's supervision, and goods utilized in the dental clinic, with most consisting of variable concentrations of carbamide peroxide or hydrogen [2]. Since dental discoloration is directly related to patients' aesthetics, It's crucial to study how different components relate to a person's degree of contentment with teeth esthetics [3]. Due to the patient's opinion that the appearance of their teeth is related to their overall health and vital for self, cosmetic dentistry has recently been a key component of restorative dentistry [4]. In addition to function, structure, and biology, it was proposed that dentists should take the patient's aesthetic aspirations into mind while organizing therapy. This may result in enhanced consumer satisfaction [5]. To increase esthetics bleaching is regarded to be the least invasive way to heal the discolored teeth. Also the popularity of teeth whitening has expanded many-fold with the availability of over the counter bleaching solutions [6]. Contrary to laminate crowns or all ceramic crowns, which

necessitate for a permanent tooth preparation, bleaching is recognized as a conservative form of cosmetic treatment for discolored teeth [7]. To get the appropriate effects, a multitude of bleaching techniques might be applied. Important bleaching treatments include overnight guard bleaching under a dentist's supervision, in-office bleaching, and over-the-counter bleaching products [8]. Because of hectic lives, consumers typically demand results to come swiftly, simply, and with little effort. As a result, the majority of customers feel that in-office required bleaching is the most efficient method to acquire lighter teeth [9]. The whitening effect may be observed after just one visit, however occasionally, more than one visit is necessary [10]. Before the patients get teeth whitening, their opinions and preferences should be explored.

As reported disparities between both the patient's and dentist's perceptions concerning the requirement for cosmetic treatment, the intended aim must be made plain to the patient [11].

Aim of study:

This study aimed to assessment of patient's knowledge and perception towards teeth whitening treatment and its impact on their choice in Salah Al- Deen city.

Subjects and methods:

The present research is cross section study type was conducted out in Tikrit city, Salah Al-Deen public people from 15 th of November 2021 to the 22th of March 2022. The sample research design was via simple random sampling by which were chosen the sample randomly.

The sample size was 303 cases. Trained very well to interview the questionnaire attentively and in scientific approach. Respondents were informed that the information acquired would be secret and used exclusively for statistical reasons.

Permission was sought from persons to complete the information requested and they were guaranteed about the confidentiality of their replies. The goal of the research was explained and only individuals who consented to participate are included in the study.

The data gathering questionnaire included markings in both Arabic and English. It is administered by interviewers and mostly consists of closed-ended questions.

All data processing and analysis was carried out manually using statistical techniques. Accurate tables and figures have been used to portray the data.

2. Results:

Teeth whitening	Yes	No	Total
Gender			
	33.7%	66.3%	28.4%
Male			
Female	77.5%	22.5%	71.6%

Table-1: Teeth whitening according to gender.

From the total sample of study 303, this table shows that 77.5% of female have undergone teeth whitening, while 33.7% of female undergone teeth whitening.

Table (2): Teeth whitening according to age.

Teeth whitening Age group	Yes	No	Total
15-19	40%	60%	16%
20-24	55.8%	44.2%	60%
25-29	83.3%	16.7%	14%
30-35	86.7%	13.3%	10%

This figure reveals that 86.7% of those aged 30-35 years, 83.3% of those aged 25-29 years, 55.8% of those aged 20-24 years, 40% of those aged 15-19 years had undergone tooth whitening.

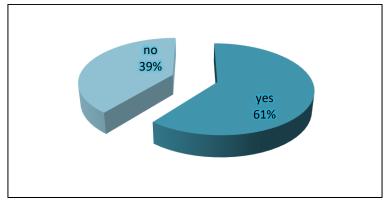


Figure 1: Patient's satisfaction about their oral health.

This figure shows that 60.7% of patients are happy with their teeth appearance.

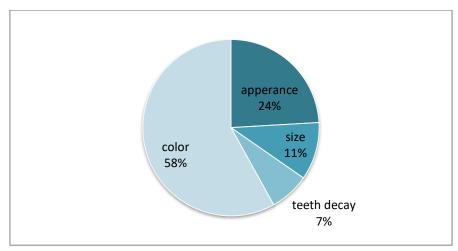


Figure 2: Factors that make patients unhappy about their oral health.

This figure shows that 58.1% of patient are annoyed about their teeth appearance because of the color, 24% due to teeth appearance, 10.6% due to size, and 7.3% due to teeth decay.

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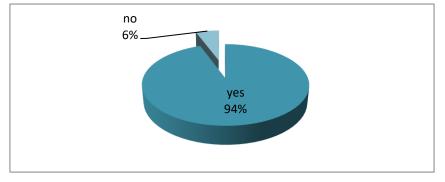


Figure 3: Patients knowledge about teeth whitening.

This figure shows that 96.4% of patients have heard about teeth whitening.

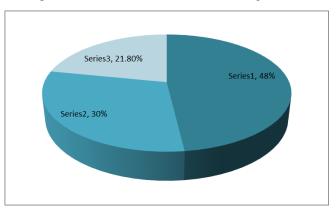


Figure 4: Patient's satisfaction about their oral health.

This figure shows that 48.2% of patients have heard about teeth whitening from articles, 30% from friends, and 21.8% from dentist family.

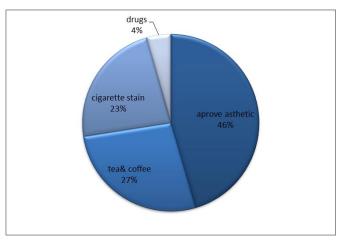


Figure 5: Factors that make patients do teeth whitening

This figure show that 45.5% of patients have undergone teeth whitening due to improve esthetic, 27.1% due to tea and coffee, 23.1% due to cigarette stain and 4.4% due to drugs causing bad teeth hygiene.

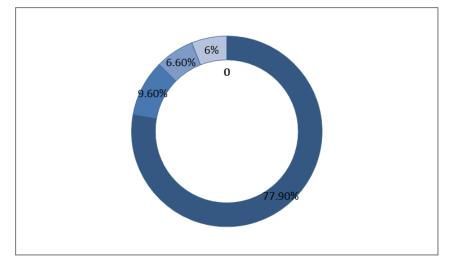


Figure 6: Complications after teeth whitening.

This figure shows that 77.9% of patients without experienced any problem after teeth whitening, while 9.6% of patients have experienced teeth sensitivity, 6.6% have experienced gum irritation, and 6% have experienced ineffective results.

3. Discussions

In terms of teeth whitening by gender and age, study findings indicate that 77.5% of females and 33.7% of males have had their teeth whitened.

86.7% of people in their 30s and 35s, 83.3% of people in their 25s and 29, 55.8% of people in their 20s and 24s, and 40% of people in their 15s and 19s have whitened their teeth.

While a different research from India reveals that 77.9% of women and 81.4% of men have whitened their teeth [12].

aged 18 to 28 years, 78.6% aged 29 to 39, 73.7% aged 40 to 50, 84.4% aged 40 to 50, and 55.6% aged. The different whitening systems that have gained popularity in this country over the past few years are assumed to be the source of this variance in proportion [13].

In South India, where the data were somewhat comparable to ours, 72% of patients were female and 29% were male. The attendees' ages ranged from 15 to 35 [14].

According to the current survey, 60.7% of clients are content with their oral health, whereas 39.3% of patients are dissatisfied. This is in relation to the patients' perception of their dental health and behaviors. In terms of oral health, 58.1% of those who are dissatisfied are upset by the color of their teeth, 24% by the way their teeth look, 10.6% by how big they are, and 7.3% by dental caries.

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According to a different survey, 87% of patients are content with their oral health, whereas 13% of individuals are unhappy [15]. As shown in the data, 20.1% of dissatisfied patients worry about look, 60.3% about teeth color, 14.2% about deterioration, and 5.4% about size.

Regular dental checkups, healthy eating, and regular health care are suggested to be the causes of this difference.

The current examination of patient knowledge of teeth whitening finds that 96.4% of patients are aware of the procedure, with 48.2% of those learning about it from articles, 30% from friends, and 21.8% from family and the dentist.

According to a different survey, 98% of patients are aware of teeth whitening, with 9% learning about it via articles, 23% from friends, and 70% from family and the dentist. This discrepancy is supposed to be caused by the practitioners' aggressive advertising and educational backgrounds [14].

To determine what motivates patients to whiten their teeth, the data demonstrate that 45.5% of patients had teeth whitening to improve their appearance, 27.1% had it done because of tea and coffee stains, and 23.1% had it done because of cigarette stains. Another research performed in Geneva, Switzerland found that 84.3% of patients had cosmetic dentistry carried out to enhance their

appearance, 8.3% had it done because of coffee and tea stains, and 7.4% had it done because of cigarette stains. This investigation contradicts our findings, and this is because the greater emphasis is placed on aesthetics, fewer people drink tea or coffee, and fewer people smoke cigarettes [16].

The study's results on issues after teeth whitening reveal that 77.9% of patients who get teeth whitening don't have any difficulties. Following teeth whitening, only 22.1% encounter difficulties such as tooth sensitivity (9.6%), gum irritation (6.6%), and only (6.0%) with unsatisfactory results. Contrarily, studies indicated that 78% of patients had no concerns and that the most prevalent adverse effects of teeth whitening were gum irritation (7%) and tooth soreness (10%) [17].

However, according to separate study, the most prevalent negative effect of teeth whitening is dental sensitivity, which affects 4% of persons [18].

The previous study's results on the prevalence of issues vary from this study's findings, which may be because medical treatment is of a high grade and people are devoted to taking care of their teeth for a long life with excellent outcomes.

4. Summary:

One of the least invasive and expensive dental procedures to boost or brighten a person's smile is tooth whitening. However, teeth whitening are not risk-free, and there is a paucity of protracted clinical evidence on its negative effects. Therefore, it is advisable to bleach teeth under a specialist's guidance after a pre-treatment dental checkup and assessment. Depending on the patient's style of living, economic state, and dental health, the best bleaching treatment option(s) may be chosen and suggested in collaboration with the patient. Patients who are contemplating over-the-counter (OTC) medications should have a dental checkup, as well as be warned against making unintentional purchases of goods that might hurt them in addition to having little to no beneficial effect on the color of their teeth.

References:

[1] M. Goldberg, M. Grootveld, E. Lynch. Undesirable and adverse effects of toothwhitening products: a review.2010; Clinical Oral Investigations, DOI:10.1007/s00784-009-0302-4

- [2] Maiara Rodrigues de Freitas, M. de Carvalho, R. Zanatta. Effectiveness and Adverse Effects of Over-the-Counter Whitening Products on Dental Tissues. 25 June 2021: Frontiers in Dental Medicine. DOI:10.3389/fdmed.2021.687507.
- [3] Abdul Majeed, I. Farooq, R. Rossouw. Tooth-Bleaching: A Review of the Efficacy and Adverse Effects of Various Tooth Whitening Products. 2015; Journal of the College of Physicians and Surgeons--Pakistan : JCPSP.
- [4] D. Sarrett. Tooth whitening today. 2002; Journal of the American Dental Association. DOI:10.14219/JADA.ARCHIVE.2002.0085.
- [5] Yousef Salem, Yusuf Ismail Osman. The effect of in-office vital bleaching and patient perception of the shade change. The South African Dental Journal. 2011;66(2):70.
- [6] Mufareh AlAmri, Abdulkarim AlShamrani, Mohammed Al Ali, Abdulfatah Abu-Khashab, Abdul Qadir Abdul Wahid, Syed Hammad Ahsan. DENTAL PATIENTS PERCEPTIONS AND KNOWLEDGE ON TOOTH BLEACHING. International Journal Of Advanced Research (IJAR). 2017; 5(2):196.
- [7] Kihn PW.Vital Tooth Whitening. Dent Clin North Am. 2007 Apr;51(2):319-31.
- [8] Y Li 1, L Greenwall. Safety issues of tooth whitening using peroxide-based materials.Br.Dent.j. 2013 Jul;215(1):29-34. doi: 10.1038/sj.bdj.2013.629.
- [9] Da Costa J, Lubisich E, Ferracane J, Hilton T. Comparison of efficacy of an in-office whitening system used with and without a whitening priming agent. J Esthet Restor Dent. 2011 Apr;23(2):97-104. doi: 10.1111/j.1708-8240.2010.00400.x.
- [10] Attin T, Hannig C, Wiegand A, Attin R. Effect of bleaching on restorative materials and restorations—a systematic review. Dent Mater 2004. Nov; 20(9):852-61.
- [11] Lee SS, Zhang W, Lee DH, Li Y. Tooth whitening in children and adolescents: a literature review. Pediatric Dentistry 2005;27(5):362-368.

- [12] Dr. Suraj Malpani1, Dr. Vijaykumar L Shiraguppi2, Dr. Bharat Deosarkar3, , Dr. Maneesha Das4, Dr. Godavari Nagargoje5, , Dr. Prajakta Gadge6. BLEACHING OF DISCOLORED TEETH: A REVIEW. Journal of Interdisciplinary Dental Sciences, Vol.8, No.1 Jan-June 2019, 15-22.
- [13] Goldberg M, Grootveld M, Lynch E. Undesirable and adverse effects of toothwhitening products: a review. Clin Oral Investigations. 2010 Feb 1;14(1):1-0.
- [14] Mehl C, Wolfart S, Vollrath O, Wenz HJ, Kern M. Perception of Dental Esthetics in Different Cultures.Int. J. Prosthodont. (2014) 27(6):523529.
- [15] Ghada Ahmad Maghaireh. Hanan Alzraikat. Nessrin A Taha. Satisfaction with Dental Appearance and Attitude toward improving Dental Esthetics among Patients attending a Dental Teaching Center. The Journal of Contemporary Dental Practice . 2016 January 17(1):16-21. DOI: 10.5005/jp-journals-10024-1796

[16] Michael B. O'Brien, BA; Ashley Copus, RDH, BS; Julia Johnson, RDH, BS; Marita R. Inglehart, Dr phil habil. Examining the Impact of Dental Hygienists' Professional Appearance: Patients' and dental student providers' perspectives. August 2019 Vol 93 Number 4.

ISSN: 2309-5288 (Print) ISSN: 2309-6152 (Online) CODEN: JCLMC4

- [17] Amalia Mazilu Moldovan, Violeta Popescu, Corina Violeta Ionescu, Stanca Cuc, Antarinia Craciun, Marioara Moldovan, Diana Dudea and Anca Stefania Mesaros. Various Aspects Involved in the Study of Tooth Bleaching Procedure: A Questionnaire–Based Study . Int. J. Environ. Res. Public Health 2022, 19, 3977. https://doi.org/10.3390/ijerph19073977
- [18] Martin, J.; Rivas, V.; Vildósola, P.; Moncada, L.; Oliveira Junior, O.B.; Saad, J.R.; Fernandez, E.; Moncada, G. Personality style in patients looking for tooth bleaching and its correlation with treatment satisfaction. Braz. Dent. J. 2016, 27, 60–65.