



Can Knowledge about Post Extraction Instruction Affect Post Extraction Behavior: A Cross Sectional Study among the Patients Visited Taibah University College of Dentistry Clinic, Madinah, KSA

**Yaser A. M. Al Sahafi¹, Ahmad Mufadi Al Juhani²,
Badr Mohammad Foudah², Lujain Atiq Alrehaily², Samar Amar Al Jabri²,
Rwan Wadea Tola² and Mohammad Sami Ahmad^{1*}**

¹Department of Preventive Dental Sciences, Dental Public Health, College of Dentistry,
Taibah University, Madinah, KSA.

²College of Dentistry, Taibah University, Madinah, KSA.

Authors' contributions

This work was carried out in collaboration among all authors. Author YAMAS wrote results, performed the statistical analysis. Authors AMAJ and BMF wrote the protocol and wrote the first draft of the manuscript. Authors LAA and SAAJ data collection, data entry and managed the analyses of the study. Author RWT managed the literature searches. Author MSA Introduction and Discussion, Final reviewing. All authors read and approved the final manuscript.

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ABSTRACT

Background: Teeth are among the most important parts of our body which help in mastication, phonetic and esthetic. Now a days tooth extraction can be avoided due to availabilities of most advanced treatment. Mostly, extraction is the treatment of choice for extensive caries and severe periodontitis because of late reporting to dentist due to lack of knowledge. Knowledge about post extraction complications and their management can prevent the occurrence of untoward sequelae following extraction. Previous studies have shown that preoperative patient education can help in decreasing postoperative anxiety, pain and complications.

Methodology: This is a questionnaire based cross-sectional descriptive study. The study was conducted during the period of January to March 2018. Total of 250 patients (138 males and 112 females) were included in the study by the convenient method of sampling that visited the dental clinics of college of Dentistry, Taibah University. Validated questionnaire was asked about post extraction preventive knowledge. Categories of answer was good, average and poor according to number of correct answers. The statistical analysis was performed by the Statistical Package for Social Science version 21 (SPSS Inc Chicago, IL, USA). The significant value was obtained by using Chi Square test and $p < 0.05$ was set to be significant.

Results: Females and 31-45 years age group had better post extraction preventive knowledge and there was significant relation. Nationality and education level had no significant relation with level of post extraction preventive knowledge. The patients who had better knowledge followed the instructions precisely.

Conclusion: It was concluded that female, patients above middle age group and more qualified patients had more post extraction preventive knowledge and they also followed the instructions very strictly. The importance of study came out that dentist or dental assistant should explain and convince them to follow proper post-operative instruction to avoid complications.

Keywords: Extraction; extensive caries; post-operative anxiety; phonetics; PEPK.

1. INTRODUCTION

Teeth are among the most important part of our body, which has masticatory, esthetic and phonetic function. Extensive caries, trauma, teeth mobility tooth due to severe periodontal disease, large periapical abscess, overcrowding of teeth in dental arch, impacted third molars and orthodontic purposes are the main reasons for teeth extraction [1]. Now a days tooth extraction can be reduced as entry of more advance treatment procedure but in some cases extractions are unavoidable [2]. Still extraction is the most common procedure done in dentistry, especially in developing countries. Knowledge about post extraction complications and their management can prevent the occurrence of untoward sequelae following extraction [3]. Previous studies have shown that preoperative patient education can help in decreasing postoperative anxiety, pain and complications [2, 4].

Patients must receive detail information about their illness and treatment options and home instructions after the treatment performed. Written instructions have been shown to be a valuable supplement to verbal instructions [5,6]. But many brochures are written at too high-grade level that is difficult for the patient to understand. The main thing is to be understandable postoperative care instructions to the patients [7]. These depend on how they are presented by the professional (verbally or written) and socio-culture level of patients. The main elements that could interfere with the understanding of postoperative care instructions are how they are

presented by the dentist or dental assistant and socio-culture level of the patients. Main purpose for advising patients about post extraction care is for better healing process after extraction [8,9].

Several studies have described different factors that may influence the degree of difficulties as well as the impact of procedure on the quality of life of the patients during the post-operative care. However, the post-operative period is also influenced by the patient understanding of and the subsequent implementation of the guideline presented by the professional in order to minimize morbidity, complications and to improve the quality of life of the patients [10].

The main objective of the study is to determine the knowledge regarding post extraction instructions and percentage of the patients who strictly follow the postoperative instruction following tooth extraction.

2. METHODOLOGY

This is a cross-sectional descriptive questionnaire-based study. The study was conducted during the period of January to March 2018. Total 250 patients (138 males and 112 females) were included in the study by the convenient method of sampling that visited the dental clinics of college of Dentistry, Taibah University. Patients included in the study were healthy and not having any debilitating diseases. The patients were excluded from the study that would have limited intelligence quotient, some psychological disorder or having difficulties understanding Arabic or English languages or

the children who could not give proper reply. The age of the patients was ranging between 16 years to 60 years and mean age was 31.6.

The questionnaire included socio-demographic data and validated post extraction advice given after extraction of tooth [11]. The patients were interviewed immediately before they went for extraction of teeth. Some questions regarding the knowledge about post extraction care were asked by the patients. The total score of knowledge was calculated. The maximum score was 11 and minimum score was "0". The knowledge score was categorized into "good knowledge (8-11)", "Average knowledge (4-7)" and "poor knowledge" (0-3).

The statistical analysis was done using Statistical Package for Social Science version 21 (SPSS Inc Chicago, IL, USA). The significant value was obtained by using Chi Square test and $p < 0.05$ was set to be significant.

3. RESULTS

In this cross sectional study, patients who came for extraction of the tooth in the dental clinic of Taibah University College of Dentistry were included. All the patients were selected by convenient method of sampling. Out of total 250 patients 138 were male and 112 were female. 73% of females had good post extraction preventive knowledge (PEPK) as compared to male which was 67%. Average PEPK was similar in both genders. There was significant relation between gender and PEPK ($P=0.023$).

Table 2 shows the relation between age group and PEPK. 31 years to 45 years age group of patient had better PEPK than the age group below the age of 31 years and above the age of 45 years (Table 2).

There was not much difference in between nationality, employment status and PEPK (Table 3), but it was having significant relation with employment status (Table 4).

Table 5 shows the significant relation ($P = 0.027$) between level of education and PEPK. It was found that patients who were educated had good knowledge of PEPK.

There was highly significant relation between the patients having PEPK and followed instructions. Seventy six percent of patients having good PEPK followed the instructions strictly as compared to partially or not followed, they were 63% and 50% respectively (Table 6).

4. DISCUSSION

Oral health is an integral part of general health and it is valuable for any individual. The most commonly performed surgical procedure in dental clinics is the extraction of non-restorable/retainable tooth. The understanding and adherence to post extraction care instructions are important factors that influence the recuperation process after extraction or any surgical procedure. In common, post extraction complication is minimal. However, patients suffer sometimes due to negligence or lack of proper post-extraction care. In such cases mostly dentists are to be blamed for the problems. Therefore, awareness should be created by the dentist and should transfer knowledge on the post extraction complications to patients and how to avoid it. Dentists should also provide written information on post extraction complications to prevent it. Some of the researchers pointed out that more than half of their patients preferred both verbal and written information [12].

Table 1. Gender wise post extraction preventive knowledge (PEPK)

Gender	PEPK						Total		P value
	Good		Average		Poor		N	%	
	N	%	N	%	N	%			
Male	92	67	33	24	13	9	138	100	0.023 (significant)
Female	82	73	26	24	4	3	112	100	

Table 2. Age wise post extraction preventive knowledge (PEPK)

Age group	PEPK						Total		P value
	Good		Average		Poor		N	%	
	N	%	N	%	N	%			
15yrs-30yrs	90	65	39	28	10	7	139	100	0.022(significant)
31yrs-45yrs	60	77	13	17	5	6	78	100	
46yrs-60yrs	21	64	8	24	4	12	33	100	

Table 3. Nationality wise Post Extraction Preventive Knowledge (PEPK)

Nationality	PEPK						Total	P value	
	Good		Average		Poor				
	N	%	N	%	N	%			
Saudi	138	70	46	23	14	7	198	100	0.102 (not significant)
Non-Saudi	36	69	13	25	3	6	52	100	

Table 4. Employment wise Post Extraction Preventive Knowledge (PEPK)

Employment	PEPK						Total	P value	
	Good		Average		Poor				
	No	(%)	No	(%)	No	(%)			
Employed	57	(71)	15	(19)	8	(10)	80	(100)	0.041(significant)
Unemployed	44	(75)	15	(25)	0	(0)	59	(100)	
Students	73	(66)	29	(26)	9	(8)	111	(100)	

Table 5. Education wise Post Extraction Preventive Knowledge PEPK)

Level of Education	PEPK						Total	P value	
	Good		Average		Poor				
	No	(%)	No	(%)	No	(%)			
Primary	12	(63)	4	(21)	3	(16)	19	(100)	0.027(significant)
Secondary	58	(59)	30	(31)	10	(10)	98	(100)	
Graduate and above	103	(77)	18	(14)	12	(9)	133	(100)	

Table 6. Instruction wise Post Extraction Preventive Knowledge (PEPK)

Follow the instruction strictly	PEPK						Total	P value	
	Good		Average		Poor				
	N	%	N	%	N	%			
Yes	101	76	26	20	6	4	133	100	0.002 Highly significant
Partially	73	62	33	28	11	10	117	100	

This cross-sectional study was performed to assess the PEPK among the patients seeking dental care at dental clinic of Taibah University College of Dentistry. The response rate was 100%.

Regarding the gender more females had good PEPK than male participants. This might be because females are known to be more conscious and aware about their oral health than males. So they listen properly with attention and also practice to avoid any complications.

Some researchers reported females were more conscious about their oral health and they used to listen very carefully and practiced it [12,13]. Other researchers reported level of PEPK were higher among female patients as compared to male patients [13,14]. It was also observed women were significantly more anxious than men [15,16].

Table 2 shows the relation between age and knowledge about PEPK and found significant relation ($P = 0.02$). It was observed that 31-45 years (77%) have better PEPK. It may be due to the patients come for extraction above 31 years are more afraid of post extraction complications. The reason, they asked many questions regarding prevention of untoward happening. There is a general assumption that people in later stage of life have poorer information recall than younger one [17-18].

Nationality of the patients and PEPK had not revealed any significant relation ($P = 0.102$) Table 3. It was also observed that there was not any difference of knowledge about post extraction prevention among employed and unemployed patients, but a small difference of knowledge was found among students as compared to employed and unemployed patients. This might be the students have fewer

dental problems of extraction because they were young and at this stage of age mostly, they need conservative treatment (Table 4).

The patients who were university graduates had better PEPK (77%) as compared to primary (63%) and secondary (59%) education levels Table 5. Educated people come for extraction give more attention on the dentist advise as well as the ask for the literature. According to some studies less educated people mostly come from lower socioeconomic class and they come with severe problem of health. So, they cannot give attention to the preventive post- operative instructions described by the health workers [19,20].

There was a highly significant relation between PEPK and following the instruction strictly after the extraction ($P = 0.002$). The patients who had good post extraction preventive knowledge followed strictly post extraction instructions Table 6. This is a natural phenomenon that any persons who were aware of danger of post-extraction would care and follow the instructions. It was found in many literatures that persons who had good knowledge of the diseases care more and follow the instructions of the health provider seriously [21-23].

5. CONCLUSION

It was concluded that female and above middle age group and more qualified patients had more post extraction preventive knowledge and they also followed the instructions very strictly. This study shows the importance of post extraction knowledge for the patient to prevent the post extraction complications.

SUGGESTION

- Patients should be routinely advised post extraction care by the dentist or dental assistant.
- Dentist should briefly describe what complications occur if they do not take homecare after extraction.
- Dentist should explain verbally how to take post extraction care as well as patient should be provided written instructions also.

CONSENT

As per international standard or university standard written patient consent has been collected and preserved by the authors.

ETHICAL APPROVAL

Ethical approval was obtained by the ethical committee of College of Dentistry, Taibah University, Madina, KSA.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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