CONFIDENCE OF DENTAL POST-GRADUATES AND GENERAL PRACTITIONERS IN PERFORMING SURGICAL TOOTH EXTRACTION

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ABSTRACT

Complications might occur during complicated and/or uncomplicated extraction, including bony or soft tissue injuries, such as fracture of the tooth roots, fracture of the maxillary tuberosity, displacement of the roots into anatomical spaces. They can be managed by a skillful practitioner who is more confident in dealing with these surgical challenges. Aim: evaluate the competency of dental postgraduate and general practitioner, assess the quality of treatment in universities, government owned hospitals and private centers, enumerate the most common complications, their causes and role of practitioner's experience in preventing complications from occurring. Study Design: Cross-sectional observational study, based on a sample size of 313 postgraduate and general practitioner dentists. A survey was sent to the participants in a google-form to complete the questionnaire and then to be applied in the comparison tables. All participants answered a comprehensive validated questionnaire. Inclusion criteria: dental postgraduates and general practitioners, who are currently practicing dentistry across Saudi Arabia. Statistical analysis: collected data analyzed by using SPSS version 2020, data descriptive (mean and standard deviation), regression and one-way anova. Results: The response rate was 100%, most of the participants were among university setting group (61%). Practitioners showed higher confidence rates in performing simple extractions (89.8%). Less confidence in performing surgical extraction responders was higher (52.1%). There was a significant correlation between the level of confidence of the practitioner, and the decreased number of procedural complications during surgical teeth extraction among the postgraduates and general practitioner dentists.

Key words: Confidence level, General practitioner, Post graduates, Surgical extraction.

Introduction

Exodontia has many complications that became common among dentistry students, general practitioners, postgraduate students, and even oral surgeons during surgical and non-surgical tooth extraction. Government, university and private hospitals and clinics, have all reported it. Significant injuries can result from nerve, bone, and soft tissue injuries. Minor injuries such as tooth root fractures, fractures of the maxillary tuberosity, displacement of the maxillary roots or teeth into the maxillary sinus and of the mandibular teeth in the submandibular space, mobility of the adjacent teeth, and in rare cases, extraction of the wrong tooth could occur [1-5]. These complications vary in their extension and severity, and their rates of occurrence among general dentists and post-graduate candidates. Several factors affect the dentist's confidence and performance in surgical tooth extraction, in their daily practice that might be related to his/her experience, or even their interest in practicing these surgical procedures. Clinical factors include their exposure to a wide variety of cases, and the quality and length of their received training, while their didactic education is based on their acquired knowledge and cognitive skills. We aspire to focus the spotlight on the most

common complications that general dentists and postgraduates produce during teeth extraction, their frequency, how they manage these complications, their immediate actions, regarding whether they inform the patients about the complications confidently or not and recognize the reasons of feeling unconfident to perform and manage particular surgical extraction operations.

Literature review

Literature has been reviewed to learn more about general dentists' and postgraduates' confidence in performing dental extraction and surgical procedures, as well as their ability to manage the procedures' complications if they occurred, and how they informed their patients about the situations they encountered during the provided service. The gathered information provided us with a key map that paved the road toward proceeding with this study.

Al-Dajani *et al.* in Aljouf University school of dentistry in Saudi Arabia, used a self-administrated survey questionnaire, distributed among fourth and fifth years dental undergraduate students, assessing and determining their level of confidence in performing dental oral surgical procedures in correspondence with the number of teeth they



extracted during their practice [6]. In their study, thirty-two dental students reported studying literature about the subject of oral and maxillofacial surgery for an average of four seven hours per week. The number of teeth extracted by the students, were 25.3 teeth. Seventy-five percent of the students used sutures after extracting the teeth, and twentyfive percent developed expertise in treating dry socket. In addition, 40.6 percent of students reported that their lower first molar was the first tooth to be extracted, while 56.3 percent of respondents admitted their first extraction was tough. The first extraction process was not deemed "very tough" by anyone. They discovered that through the integration of basic science, and a good dental background, they were able to apply this knowledge to relevant clinical scenarios, which facilitated the efficiency of the learning process. They also discovered that students who performed exodontia more frequently had a higher level of confidence in handling instruments. Students, on the contrary, had a lower confidence level in performing surgical exodontia when compared to simple exodontia [6].

This research aims to spot as well why the general dentist is not confident in some extraction procedures and try to find a solution that could make the new generation of general dentists more confident. Bahammam and Linjawi [7] in another study, were concerned with the future Saudi dentists' knowledge, attitudes, and impediments to utilizing evidence-based practice (EBP). The EBP included a key indicator or competency standard for assessing high-quality patient-centered clinical care solutions, which was created by health organizations. As part of the auditing process, it was called clinical governance. Students in this EBP were not used in the study to order tests or treatment. This could explain their lack of understanding of the value of incorporating EBP into their therapeutic practices. Accordingly, the most significant barrier to EBP use was a lack of understanding of the concept. Their limited access to EBP materials was cited as the most serious problem, while a lack of time in their studies was considered the second most serious problem. Multiple research investigations showed incorporating EBP competencies into healthcare system expectations and operations can improve healthcare quality, consistency, and reliability while also lowering costs according to current research, without a well-designed strategy for integrating EBP into any therapeutic context, the outcome is unknown, and it is usually not worth the effort. The EBP necessitated a professional approach as well as a group of skills, knowledge, and clinical expertise, a culture shift and increased awareness at all levels. This research backs up the idea that EBP integration should be well-structured as a major competency level in graduate curricula, which is essential in Saudi contexts and programs to enable them to evolve [7].

Honey *et al.*, assessed the senior-year dental student's selfconfidence at two dental schools; Cardiff and Cork universities [8]. A questionnaire was presented to sixty-one and thirty-four, Cardiff and Cork final-year students respectively to assess their level of self-confidence in performing procedures, often performed in primary dental care clinics, using a five points scale ranging from 1= as the lowest level of confidence, to 5= as the highest level of confidence. Their results proved that the rate of response was seventy-four percent (n=70), and the documented highest level of self-confidence was in performing scaling and polishing (4.61) compared to only (2.26) among dental students in performing surgical tooth extraction. The students at Cardiff, exhibited slightly more confidence, than students at Cork regarding the simple tooth extraction procedure, since Cardiff students recorded (4.31 out of 5), while Cork students, were (3.76 out of 5). Moreover, Cardiff students were also more confident in performing surgical tooth extraction, their level of confidence was (2.61 out of 5), where Cork University students scored (1.88 out of 5) [8].

Shah et al., underwent a study, where they assessed the senior undergraduate students' confidence and experience in oral surgery procedures, through answering a survey [9]. They found that low confidence levels after graduation resulted in an increased number of referred cases to secondary care centers. This was believed to exert a national economic burden on the NHS, whereas from the patients' standpoint it added to their inconvenience. A survey was given to one hundred and fifty senior students in the school of dentistry at King's College, one month before graduating in the year 2015. Their level of confidence was assessed on oral surgery quota, where the questions were based on scenarios. On the other hand, the surgical procedures started by raising a mucoperiosteal flap, followed by surgical sectioning of the tooth, and finally by suturing. The response rate was shown to be at 71% (107/150), 84% of students had undertaken between 50-79 extractions during their undergraduate study years, and 47% performed around 10-19 surgical extractions.

75% of the students felt they had adequate knowledge and clinical competency as an undergraduate performing oral surgery, no variables between the gender of the students and their confidence level were noted.

At Kuwait University, a cross-sectional study was carried out to evaluate undergraduate students' confidence in the oral and maxillofacial surgery field. This evaluation aimed to prepare students to face surgical challenges, by enhancing the educational schemes and selecting the required materials and instruments [10]. They compared a total of 39 students between the sixth year (n = 20) and seventh year (n=19), through a validated well- structured questionnaire developed by the Association of British Academic Oral and Maxillofacial Surgeons. It included 17 questions assessing the undergraduates' OMFS curriculum. They found that (61%) of the students showed sufficient amount of confidence in practicing simple dentoalveolar procedures and managing simple surgical complications like; bleeding from a tooth socket, and pericoronitis, while they reported having less confidence in surgical extractions and advanced surgical procedures. They concluded that students favor the use of simple extraction forceps and elevators.

Research question

To assess the level of confidence of dental postgraduate and general dental practitioners in performing uncomplicated and complicated dental extractions.

Research hypothesis

- The level of confidence among postgraduates is higher than among general practitioners.
- Level of education and training influences the level of confidence.

Rationale

To achieve good patient care, avoid some possible complications and unnecessary costs.

Aims & objectives

- To evaluate the competency of the dental postgraduate and general practitioner.
- To assess the quality of treatment in universities, government-owned hospitals, and private hospitals/centers.
- The role of practitioner's experience in preventing complications.

Significance of the study

- We expect to see the level of confidence among postgraduates affecting the decision-making in managing surgical extractions and their complications, which will lead to a better postoperative outcome compared to general practitioners.
- The study will help in promoting good patient care, preventing some possible complications, and raising the level of confidence in their management.

Materials and Methods

This is a survey-based study. The scope of the study is based on evaluating the young dentists' level of confidence in performing dental extraction and dealing with related complications, through evaluating their knowledge, attitude, and limitations. This will serve in determining their level of confidence while dealing with different kinds of extraction complications. A validated survey by a Biostatistician and two professors in the Oral and Maxillofacial Surgery department at King Abdulaziz University Dental Hospital in Jeddah was sent to the participants in a google-form to complete the questionnaire. Participants were all general practitioners including postgraduate students, who are currently working in the governmental or private sectors. The selection of the participants was based on inclusion and exclusion criteria.

Inclusion criteria

Any dental postgraduate and general practitioner, who is

currently practicing dentistry, in KSA.

Exclusion criteria Pre-clinical dental students

Study design and area A cross-sectional, observational study, in Jeddah, SA.

Study subject

The study included dental university, government-owned, and private hospitals/centers. Postgraduate and general practitioners who are now practicing dentistry and performing tooth extractions.

Instruments & interventions

All of the participants completed a fully validated questionnaire that probed them about their confidence in executing the extraction procedure, their attitude toward dealing with difficulties, their methods of prevention of potential complications, and their readiness in dealing with those complications.

Statistical analysis

Collected data were analyzed using SPSS[®] version 25, for Windows statistical software. Descriptive statistics (mean and standard deviation), regression, and one-way ANOVA tests were used.

Budget

No external funding was needed during this observational study.

Results and Discussion

During a period of eight months, started on the 10^{th} of August 2021 until the end of March 2022, the survey of our study included a total of 313 participants; divided into 102 (32.6%) males (n= 102); and (67.4%) females (n= 211) group respectively, most of whom are under the age of 30 years old (20-25 68.1% and 26-30 29.4%) and more than half of the study population graduated in the past four years between the year 2016 – 2020 (55%). Our results were divided between three groups Governmental hospital setting, private clinics, and University setting groups.

About two-thirds of the participants (191) worked in a University Hospital at the time of data collection. The rest were divided equally between governmental and private centers (62 and 60 respectively).

After running a descriptive analysis on the collected data and doing one-way ANOVA we found that there is a significant correlation between practicing dentistry at the university hospital and age, since more than 90% of the participants practicing dentistry at a University Hospital were between 20 and 25 years with a highly significant pvalue of 0.000 (**Table 1**). Regarding the duration of practice of dental extraction; university practitioners had statistically significantly fewer years of practice, compared to their colleagues in government and private centers.

It was further found that most of the University Hospitals practitioners graduated from King Abdulaziz University (82%), who actually constitute most workers in all the healthcare sectors.

Regarding the number of surgical teeth extractions performed weekly, more than half of the participants did 1-5 extractions per week. Interestingly, most of those practitioners were working at a University Hospital. This proved that dentists working in a University Hospital setting exhibited higher practice levels compared to those practicing in private and other governmental sectors. However, governmental and private sectors showed six to 10 surgical teeth extractions per week at a rate of 6% and 10% respectively.

When running the same test on simple tooth extractions the percentage of participants doing between one to five extractions per week raised from 50 % to 85%. Most of the participants doing simple tooth extraction were from university hospitals, leading to a significant correlation between working in a University Hospital and having a higher rate of simple tooth extractions.

In nonsurgical tooth extraction, most of the participants (85% n=266) extracted one to five teeth per week, 6.1% extracted six to ten teeth, 2.2% extracted eleven to fifteen, and 1.9% extracted more than fifteen teeth. On the other hand, 4.8% did not practice dental extractions weekly.

Descriptive Statistics							
Variable		Frequency	Percent	Mean	S.D		
Candan	male	102	32.6	1.77	460		
Gender:-	Female	211	67.4	- 1.07	.469		
	20-25	213	68.1				
	26-30	92	29.4	_			
Age:-	31-35	5	1.6	1.36	.583		
	36-40	2	0.6				
	41-45	1	0.3				
	1990-1995	2	0.6				
	2006-2010	4	1.3				
In what year did you graduate? if you are	2011-2015	10	3.2				
still a student type in "NA"	2016-2020	172	55				
	2021-2022	8	2.6				
	NA	117	37.4				
TT 1 1 1.	1-5	287	91.7				
How many years have you been doing	6-10	24	7.7	1.09	.307		
dental extraction?	11-15	2	.6				
Graduation school: -	National	293	93.6	- 1.06	.245		
Graduation school: -	International	20	6.4				
University nome	King Abdulaziz university	257	82.1	1 10	384		
University name: -	Other	56	17.9	- 1.18	.364		
	Government-owned center	62	19.8				
Where are you practicing dentistry?	Private center	60	19.2	2.41	.800		
	University Hospital	191	61				
Are you confident in performing a surgical	yes	150	47.9	2.52	500		
tooth extraction?	No	163	52.1	- 2.52	.500		
What is accient for you to autroat?	Single rooted teeth	281	89.8	1 10	202		
what is easier for you to extract?	Multi rooted teeth	32	10.2	- 1.10	.505		
	0	141	45.0				
How many teeth surgical extractions do you	1-5	157	50.2	- 61	621		
do per week?	6-10	10	3.2	01	.031		
	10>	5	1.6	_			
How many teeth simple extractions do you	0	15	4.8	1 1 2	500		
do per week?	1-5	266	85.0	- 1.12	.377		

Table 1. Descriptive Statistics illustrated

 6-10	19	6.1
11-15	7	2.2
15>	6	1.9

Significant results were encountered in this study which included six questions distributed among the participants; questions number one, three, five, eight, nine, and 13 will be illustrated in the upcoming tables.

Q1: Did you face a root fracture complication during a procedure?

The most common complication that occurred was root fracture during extraction with 190 of the participants (p= 0.00), which was more encountered in a governmental setting, 156 managed the case immediately, while 34 referred their cases (p = 0.000). A total of 123 of the practitioners, did not inform their patients about the occurrence of the complication, and only 33 informed their patients (p = 0.001) (**Table 2**).

		Government	Private	University	P-Value
-	N= 190 (60.7 %)	54	45	91	0.00
Root Fracture	Referred (34)	14	8	12	0.000
Complication	Managed (156)	40	37	79	- 0.000
-	Didn't inform (123)	8	15	100	0.001
-	Informed (33)	10	12	11	- 0.001

Table 2. Root fracture complication

Q3: Did you face a complication of luxation or an injury to the neighboring teeth during a procedure?

A total of 45 dentists gave an affirmative answer, most of them were in a university setting, while the rest were equally divided (p = 0.003). 38 dentists managed the case, while the rest referred their patients (p =0.017). Most of the dentists did not inform the patient n=37, while the rest informed them about the complication (p = 0.003) (**Table 3**).

Table 3.	Luxation o	r injury	to adjacent	teeth cor	nplication
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		Government	Private	University	P-Value
-	N=45 (14.4 %)	14 (22.6 %)	14 (23.3 %)	17 (8.9 %)	0.003
Luxation or injury to	Referred (7)	2	2	3	0.017
neighboring teeth	Managed (38)	12	12	14	- 0.017
-	Didn't inform (37)	9	11	17	0.002
	Informed (1)	1	0	0	- 0.005

Q5: Did you face a complication of an alveolar bone fracture during a procedure?

A total of 34 respondents admitted they faced alveolar bone fractures, with the least among them being in private clinics

(p = 0.006). 29 managed the case while the rest referred their patients (p = 0.037). 28 dentists informed their patients about the complications, while the remaining dentists did not (p = 0.006) (**Table 4**).

		Government	Private	University	P-Value
-	N= 34 (10.9 %)	13	8	13	0.006
Alveolar bone	Referred (5)	2	1	2	0.027
Complication	Managed (29)	11	7	11	- 0.037
	Didn't inform (28)	10	7	11	0.006
-	Informed (1)	1	0	0	- 0.006

 Table 4.
 Alveolar bone fracture complication

Q8: Did you face a complication of dislocating the mandible during a procedure?

A total of 19 participants confirmed the occurrence of this complication (p = 0.0000), most of them referred to the case

n=16, and only three managed the case, which was practiced in the university (p = 0.000). Only three informed their patients about their complications (p = 0.000) (**Table 5**).

Table 5. Dislocation of the mandible complication

		Government	Private	University	P-Value
	N=19 (6.1 %)	11	3	5	0.000
Dislocating the	Referred (16)	10	4	2	0.000
Complication	Managed (3)	0	0	3	- 0.000
Compromision	Didn't inform (0)	-	-	-	0.000
	Informed (3)	1	2	0	- 0.000

Q9: Did you face a complication of fracturing the maxillary tuberosity during a procedure?

A total of 38 participants answered yes to this question, with the higher response being among the governmental group (p = 0.001). 29 managed the case, and the rest referred their patients (p = 0.002). 27 dentists did not inform their patients and only two informed them about the complication (p = 0.000) (**Table 6**).

Table 6.	Fracturing	the maxill	ary tubero	sity com	plication
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		Government	Private	University	P-Value	
	N= 38 (12.1 %)	16	7	15	0.001	
Maxillary tuberosity	Referred (9)	5	0	4	0.002	
Fracture Complication – –	Managed (29)	11	7	11	0.002	
	Didn't inform (27)	11	5	11	0.000	
	Informed (2)	0	2	0	0.000	

Q13: Did you face a complication of disturbing artificial restorations during a procedure?

Only 6 participants responded with yes to this question, four from the governmental group and two from the university

group (p = 0.013). Five managed the case on the same visit, and one referred his patient (p = 0.047). Three dentists did not inform their patients, and the rest informed them about the complication (p = 0.002) (**Table 7**).

		Government	Private	University	P-Value
	N=6 (1.9 %)	4	0	2	0.013
Disturbing artificial	Referred (1)	1	0	0	0.047
Complication	Managed (5)	3	0	2	- 0.047
	Didn't inform (3)	3	0	0	0.002
	Informed (2)	0	0	2	- 0.002

 Table 7. Disturbing artificial restorations complication

A dental extraction is a procedure that every dental graduate must competently perform confidently, and properly handle the expected complications based on the training that he/she received in their undergraduate studies years. However, with the increased number of dental schools, with different standards in teaching, the number of requirements, and the number of qualified teaching staff, it is becoming harder to assess the level of education that the undergraduate students receive in a standardized manner.

Practicing surgical procedures in dentistry can be more linked to skills manner, rather than just following a specific step. Most of the cases can be straightforward procedures, but some complicated procedures might need the hands of an expert. In these situations, the risk of surgical extraction complications is increased among unpracticed/untrained general dentists. Also, the level of confidence among dentists can make a huge difference in preventing these complications and facing the challenges that could occur during the surgical procedure.

According to Aldajani [6], future research should look into the role of internships and dental outreach training in dentistry. The practitioners developed comfort in handling extraction instruments, primarily forceps, and elevators, in managing the difficult extractions cases, and controlling the post-extraction bleeding, as they completed more extractions. However, neither the GPA nor the weekly clinical exposure hours were correlated with boosting students' confidence. While more study time may improve a student's capacity to retain content, it is unlikely that this additional time will considerably improve students' clinical confidence.



The lack of significance of GPA in measuring dental student development, particularly in clinical settings, reignites the debate. Simple clinical procedures were performed by the students with higher confidence, more than complex procedures.

Nonetheless, our findings showed that greater clinical confidence was proportionally correlated to the number of teeth the students pulled. The improvement in student confidence can be attributed to direct supervision by qualified teaching members as well as live engagement with patients. Students' confidence in encountering clinical interventions in both general and OMS procedures, has improved in primary care settings. Multi-school studies are needed to explore the differences between standard and integrated curricula, particularly in terms of students' cognition, confidence, and acquisition.

This study found that clinical training has a significant impact on undergraduate students' confidence level in performing OMS procedures. In Aljouf University's College of Dentistry, it was found that the students were more confident in performing simple surgical procedures but less confident in performing complex procedures. The more clinical experience students get under the umbrella of an integrated curriculum, the more confidence they will demonstrate, this agrees with the present results.

Handling the extraction instruments and devices comfortably, such as forceps and elevators is directly linked to the level of clinical training experience.

On the other hand, both total GPA and assigned weekly hours poorly contributed to the student's confidence, while the increase in the study hours reinforced the student's ability in the knowledge domain, rather than the students' clinical confidence. To memorize taught content the lack of significance of GPA in measuring dental student development, particularly in clinical settings, reignites the debate. The students displayed high confidence in performing simple clinical procedures, while they were less confident in performing complex procedures. A good example is a high confidence among students when performing simple extractions, while difficult surgical extractions were accompanied by less confidence. Nevertheless, our study demonstrated that the more teeth the students extracted, the more clinical confidence they displayed. This significant improvement in students' confidence can be related to their live interaction with patients combined with direct supervision bv knowledgeable faculty members.

In a survey study by Honey *et al.* included 95 final year students, thirty-six from Cardiff University, whilst thirty-four were from University College Cork [8]. Their results reported the confidence levels of final year dental students when performing clinical procedures at Cardiff and Cork Dental Schools, for overall confidence to be in agreement

with previously published studies. It was found that simple procedures such as scaling and polishing, history and examination, diagnosis of caries, simple fillings and pediatric dentistry were the areas in which students at Cardiff and Cork had the most confidence. Complex procedures such as surgical extraction, veneer preparation, orthodontic emergencies, molar endodontics, and conventional bridgework were the procedures exhibiting the least confidence which is in agreement with our study, since 52.1% of the participants answered "no" when asked about their level of confidence in performing surgical tooth extraction.

When the confidence levels of students at Cardiff and Cork were compared, few obvious differences in confidence were found. In oral surgery, Cardiff students were more confident in all three procedures (simple extractions, surgical extractions, management of dental emergencies) than Cork students. Students at both schools had very little confidence in surgical extractions of teeth, but students at Cardiff were more confident. Dental emergencies and simple extractions were procedures that students from Cardiff felt confident in, more than their counterparts at Cork. This is probably a reflection of the availability of suitable patients with greater numbers of extractions performed at Cardiff, the teaching philosophies at both schools, and the differences in the access to, and delivery of, dental services between both Cork and Cardiff.

One of the limits to developing confidence in performing clinical procedures has been identified as insufficient clinical exposure within the undergraduate curriculum, however, clinical exposure is limited by the lack of appropriate patients availability, physical space within dental schools, available time within an already over-busy dental curriculum, and a lack of suitably trained clinical staff to provide teaching.

There were no obvious differences in confidence levels between males and females, in this study, which could be attributed to the fact they received the same clinical teaching and experience.

In a study by Kamal [10] in Kuwait university, where they assessed the level of confidence in oral and maxillofacial surgery and the undergraduate students ability to perform minor oral surgery, they conducted a cross-sectional survey of all 6th and 7th-year dentistry students in the Kuwait University Faculty of Dentistry, through a validated questionnaire by ABAOMS, with a total of 39 participants from both sixth and seventh year students. Both the sixth and seventh year students reported confidence in extracting an upper single-rooted tooth with an intact crown (94.7 and 90% respectively) which is in line with our findings as the majority of participants 89.8% found it easier to extract single rooted teeth than multiple rooted teeth, moreover, they also came to the conclusion that both sixth and seventh year student groups showed a lower level of self-confidence in performing more invasive procedures such as the raising of a flap, sectioning of teeth and bone removal, and wound closure with suturing which is also in line with our study as 52.1% n=163 of the participants answered with "no" when asked about their confidence level in performing surgical tooth extraction, and 45% n=141 of our study sample does not extract teeth surgically on a weekly basis which emphasizes the need for more hands-on teaching and training for the students in surgical tooth extraction in order for them to adequately handle such cases in their future practice.

Impact of the study

- Decrease the possibility of post-surgical procedure complications.
- All results will be sent to the centers involved in this study and assess the need for more training, with experts' recommendations.
- Future work: compare the western and the Eastern regions in KSA; to assess any deficiencies and exchange experience between them.

Limitation of the study

Some of the limitations were faced during this study, such as limited standardization in the surgical setting during the surgical procedures due to multicenter involvement that includes the number of sufficient instruments and materials availability.

The patient's cooperation status during the procedures was not mentioned in all the surveys, which can be a modifying factor in a stressful environment for the clinician that leads to mishaps and wrong decisions making.

Recommendations

More studies are required to observe the clinician's performance in dealing with surgical procedures and how they manage if complications occur.

The need to know the limits of the general dentist not to go further beyond in any advanced surgical cases just to prevent any complications from occurring and try to refer the case immediately if it is beyond his\her capability.

Conclusion

In conclusion, there was a significant correlation between enough confidence that the practitioner has, and the decreased number of procedural complications during surgical teeth extraction among postgraduates and general practitioner dentists.

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