

# Knowledge and Practice of Informed Consent Among Oral Healthcare Providers in a Tertiary Health Facility in the South-South of Nigeria

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ABSTRACT

**Background:** Informed consent has become a global practice recognized in clinical practice. Patients are getting more aware of the types of treatments they are given and the patient's rights to information about the treatment procedures they receive are also on the rise.

**Objective:** To assess the knowledge and practice of informed consent among dental healthcare providers.

**Methods:** This was a descriptive cross-sectional study that was conducted in the dental clinic of the University of Benin Teaching Hospital from June to December 2022. The research was carried out among 105 dental healthcare providers through self-administered, structured questionnaires. Data was analyzed using SPSS version 25; Frequency and descriptive statistics were generated, and Chi-square and Fisher's exact tests were used to examine differences between groups. P value less than 0.05 was regarded as statistically significant.

**Results:** Of the 130 questionnaires shared, 105 respondents filled and returned representing a response rate of 80.8%. The majority (81.9%) of respondents had excellent knowledge of informed consent while only a little more than half (60.0%) had a good practice of informed consent. There was a statistically significant relation between the practice of informed consent and the gender of the respondents. ( $p=0.042$ ) The mean knowledge scores were highest among males ( $3.9\pm 0.440$ ) and dentists ( $3.9\pm 0.402$ ) with a strong association ( $p=0.006$ ). Males ( $2.7\pm 0.497$ ) recorded higher practice scores and those who had practiced for more than 15 years recorded better practice of informed consent. The majority (70.5%) of the respondents favoured verbal consent.

**Conclusion:** The study noted excellent knowledge among the respondents which did not translate to good practice as only a little over half (60.0%) of the respondents recorded good practice of informed consent.

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**Key words:** knowledge, practice, Oral healthcare providers, Informed Consent

## INTRODUCTION

Informed consent has become a global practice recognized in clinical practice. Patients are getting more aware of the types of treatments they are given and the patient's rights to information about the treatment procedures they receive is also on the rise.

**Citation:** Omokhua HA, Alile KO (2023). Knowledge and practice of informed consent among oral healthcare providers in a tertiary health facility in the south-south of Nigeria. *Nig J Med Dent Educ*; 5(2):72-80

details of the treatment procedures are key elements of such conversations. Informed consent

is a standard professional ethical practice (Witt, 2017). The practice of informed consent is not unique to medicine alone; it is also an integral part of dental practice. It is expected that informed consent should be obtained before every procedure. Informed consent can help reduce the dentist's liability from claims relating to miscommunication and can help establish a rapport between the dental professional and their patients. In several countries, informed consent for clinical procedures is standard practice (Beauchamp & Faden, 1995; Council of Europe, 1997; American Society of Anesthesiologists, 2008). It is meant to provide the patients with the right information on diagnosis and treatment procedures, risks involved, complications that arise, and alternative treatment, options, especially in non-emergency cases (Department of Veterans Affairs, 1996; Department of Veterans Affairs, 1996; Paterick, 2008). It is the responsibility of the healthcare workers to take informed consent from the patients or relatives (Khan, 2014; Main et al., 2017). Implied and expressed informed consent are two commonly employed types of informed consent. It is believed that implied informed consent is usually obtained for non-invasive procedures while expressed is reserved for invasive procedures (Khan, 2014; Convie, 2018).

Despite the fact that most dental procedures are non-invasive, it is advisable that properly signed informed consent should be taken from patients for all procedures (Villanueva, 2018; Glaser et al., 2020). Several studies have reported the significance of informed consent. However, studies are few on the knowledge and practice of informed consent among dental healthcare providers in the south-south part of Nigeria. This study will help gather information about the practice of informed consent in this region which can help healthcare regulators enforce the practice. The aim of this study, therefore, was to assess the knowledge and practice of informed consent among dental healthcare providers.

#### **MATERIALS AND METHODS.**

This was a descriptive cross-sectional study that was conducted in the dental clinic of the University of Benin Teaching Hospital from June to December 2022. The research was carried out among 105 dental healthcare providers through self-administered, structured questionnaires. The sample size was calculated to be 105 and a convenient sampling technique was used in sample collection. Following ethical approval and informed consent from patients, samples were

collected. All adult dental healthcare providers working in the dental center of the hospital were included in the study. Those who refused to give consent were excluded from the study. A pre-testing of the questionnaires was carried out to check for their correctness of the questionnaire.

The questionnaires consisted of different sections. Section A consisted of the sociodemographic characteristics of the respondents. Section B consisted of 5 questions regarding knowledge of informed consent and section C consisted of 5 questions regarding the practice of informed consent. Knowledge of informed consent was scored with every correct answer given a score of 1 and an incorrect answer a score of 0. The highest score obtainable was 5 and the lowest was 0. Knowledge of informed consent was rated as <25%-Weak knowledge, 25-50%-Moderate knowledge, 51-75%-Good knowledge, >75%-Excellent Knowledge (Singh et al, 2017, Enabulele, 2019).

Similarly, the practice was scored 1 for every correct answer and 0 for the wrong answer. All scores obtained were summed up and converted to percentages, graded using formats reported in previous studies. [12,13] Scoring and grading of practice: Less than or equal to 50%=Poor practice, 51-69%=Fair practice, 70% and above=Good practice

The questionnaire was developed and pretested using 10 respondents who were not part of the study.

Data were analyzed using SPSS version 25; Frequency and descriptive statistics were generated, and Chi-square and Fisher's exact tests were used to examine differences between groups. P values equal to or below 0.05 were regarded as statistically significant.

#### **RESULTS**

Of the 130 questionnaires shared, 105 respondents filled and returned representing a response rate of 80.8%. More males 60(57.1%) responded compared to females 45(42.9) with a male: female ratio of 1.3:1. The majority of the respondents, 47(44.8%) belonged to the age group 31-40 and more dentists 83(79.0) participated in the survey. The majority of respondents, 42(40.0) had only worked for three years or less. Table 2 represents the knowledge of the respondents. More than two-thirds 83(79.0) of the respondents claimed they were trained in medical ethics, especially in the area of informed consent. The majority, 92(87.6%) of the participants agreed that law regulates informed consent. Similarly, the same number of the respondents believed

informed consent was an ethical obligation. However, a sizeable number, 26(24.8%) of participants were of the opinion that the healthcare providers could deliberately withhold information from patients.

Table 3 represents the practice scores of the respondents showing almost every participant, 102(97.1%) claiming to have taken informed consent before. Almost the same number, 104(99.0%) said they explained procedures to their

patients in a language they would understand. The majority of the participants, 74(70.5%) felt only verbal without written consent was adequate. Nearly the same number of participants gave different views on whether patients should be given a copy of the consent form or not. While 56(53.3%) said they would give a copy of the informed consent to their patients, 49(46.7%) felt otherwise.

Table 1: Socio-demographic characteristics of respondents

Variable	Frequency (n = 105)	Percent (%)
<b>Gender</b>		
Male	60	57.1
Female	45	42.9
<b>Age group in years</b>		
20-30	40	38.1
31-40	47	44.8
41-50	16	15.2
51-60	2	1.9
<b>Occupation</b>		
Dentist	83	79.0
Nurse	5	4.8
Student	17	16.2
<b>Years of practice</b>		
0-3	42	40.0
4-7	19	18.1
8-11	10	9.5
12-15	20	19.0
15+	14	13.3

Table 2 Knowledge of the respondents

Variable	Frequency (n = 105)	Percent (%)
<b>Have you ever been trained in medical ethics, especially in IC?</b>		
Yes	83	79.0
No	22	21.0
<b>Does the law regulate the procedure of obtaining IC for treatment?</b>		
Yes	92	87.6
No	13	12.4
<b>Is obtaining an IC an ethical obligation?</b>		
Yes	97	92.4
No	8	7.6
<b>Is obtaining an IC a legal obligation?</b>		
Yes	97	92.4
No	8	7.6
<b>Can a healthcare practitioner deliberately withhold the right of information from a patient?</b>		
Yes	26	24.8
No	79	75.2

Figure 1 depicts the knowledge scores of the respondents. The majority (81.9%) of the

respondents recorded excellent knowledge of informed consent.

The practice scores of the participants are shown in figure 2. Most participants 63(60.0%) had a good practice of informed consent while the

respondents who had a fair knowledge were quite appreciable. 38(36.2%)

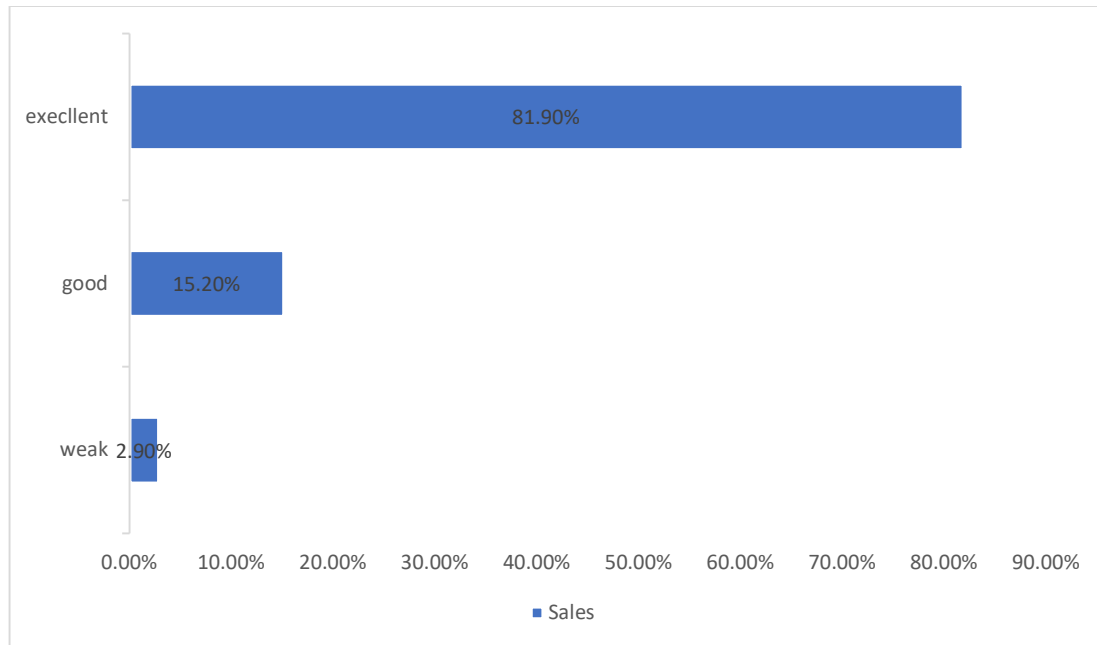


Figure 1: knowledge score of the respondents

**Table 3 Practice**

Variable	Frequency (n = 105)	Percent (%)
<b>Have you been taking consent from patients before?</b>		
Yes	102	97.1
No	3	2.9
<b>Do you explain procedures in a language your patient understands?</b>		
Yes	104	99.0
No	1	1.0
<b>Do you take signatures even if it's verbal consent?</b>		
Yes	31	29.5
No	74	70.5
<b>If a patient asks to take a copy of the consent form, do you provide a copy?</b>		
Yes	56	53.3
No	49	46.7
<b>Do you inform patients about possible consequences if he/she refuses treatment?</b>		
Yes	99	94.3
No	6	5.7

Table 4 depicts the types of consent for different procedures. While almost every respondent took informed consent before every procedure, it is noteworthy to report that most of them obtained verbal consent instead of written before almost every procedure mentioned above except surgery under GA, in which the majority, 91 (86.7%) took written consent.

Table 5 is the association between the sociodemographic characteristics of the respondents and the knowledge scores. There was no strong association between the two variables. Table 6 depicts the association between the respondents' sociodemographic and practice score. There was a strong association (p=0.042) between gender and the practice of informed consent.

Table 7 represents the mean knowledge score of the respondents. A statistically significant (0.006) finding was recorded between the mean knowledge score and the occupation of the participants.

Table 8 is the mean practice score of the respondents. The difference in the mean practice

score between males and females was more compared to the other scores recorded. There was also a near statistically significant (0.058) relationship between gender and mean practice score

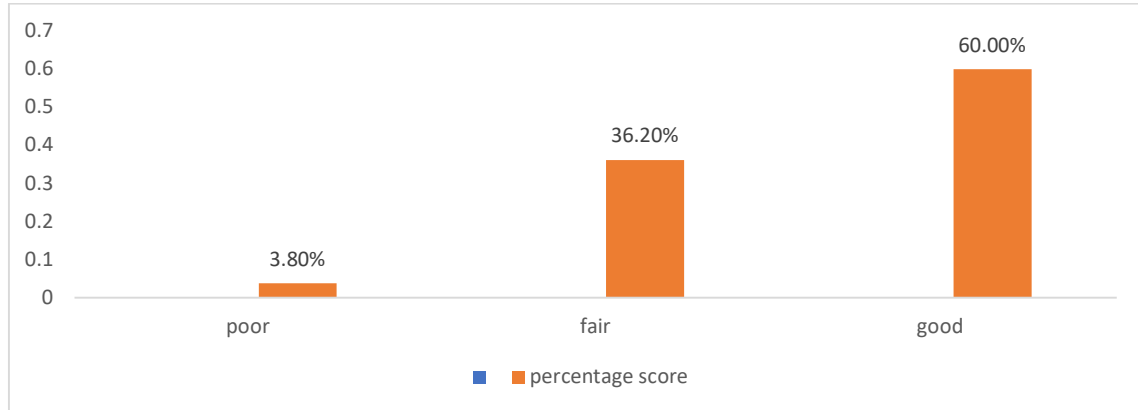


Figure 2: practice scores of the respondents

Table 4 Type of Consent for procedures

Variable	Written	Verbal	Implied	No consent
Oral examination	7(6.7)	75(71.4)	21(20.0)	2(1.9)
Fillings	10(9.5)	88(83.8)	6(5.7)	1(1.0)
RCT	19(18.1)	80(76.2)	5(4.8)	1(1.0)
Simple extractions	17(16.2)	84(80.0)	2(1.9)	2(1.9)
Surgical extractions	38(36.2)	64(61.0)	1(1.0)	2(1.9)
Surgery under GA	91(86.7)	13(12.4)	0(0.0)	1(1.0)
Incision and drainage	35(33.3)	65(61.9)	3(2.9)	2(1.9)
Scaling and polishing	7(6.7)	88(83.8)	8(7.6)	2(1.9)
Curettage	12(11.4)	86(81.9)	5(4.8)	2(1.9)
Gingivectomy	35(33.3)	66(62.9)	3(2.9)	1(1.0)
Impression taking	7(6.7)	83(79.0)	12(11.4)	3(2.9)

Table 5: Association Between Sociodemographic and knowledge scores

Sociodemographic		Knowledge score			Total	P-value
		Weak <25%	good 51-75%	excellent >75%		
Age Range	20-30	1	3	36	40	0.890
	31-40	1	2	44	47	
	41-50	0	2	14	16	
	51-60	0	0	2	2	
Gender	Male	1	3	56	60	0.715
	Female	1	4	40	45	
Occupation	Dentist	1	5	77	83	0.590
	Nurse	0	0	5	5	
	Student	1	2	14	17	
Years of practice	0-3	1	3	38	42	0.225
	4-7	0	0	19	19	
	8-11	0	2	8	10	
	12-15	1	0	19	20	
	15+	0	2	12	14	
	Total	2	7	96	105	

**Table 6: Association between the sociodemographics of respondents and practice score.**

Sociodemographic	Practice score			Total	p-value
	Poor <50%	Fair 51-69%	Good >70%		
<b>Age group (years)</b>					
20-30	0	19	21	40	0.347
31-40	1	15	31	47	
41-50	0	4	12	16	
51-60	0	0	2	2	
<b>Gender</b>					
Male	1	16	43	60	0.042*
Female	0	22	23	45	
<b>Occupation</b>					
Dentist	1	31	51	83	0.880
Nurse	0	1	4	5	
Student	0	6	11	17	
<b>Years of practice</b>					
0-3	0	16	26	42	0.588
4-7	1	9	9	19	
8-11	0	4	6	10	
12-15	0	5	15	20	
15+	0	4	10	14	
Total	1	38	66	105	

\*Statistically significant

**Table 7 Mean knowledge score**

Variable	Frequency	Mean knowledge score	p-value
<b>Gender</b>			
Male	60	3.9+-0.440	0.275
Female	45	3.8+-0.520	
<b>Occupation</b>			
Dentists	83	3.9+0.402	0.006*
Student	17	3.7+0.441	
<b>Years of practice</b>			
0-3	42	3.9+0.521	0.915
15+	14	3.9+0.363	

\*Statistical significance

**Table 8 mean practice score**

Variable	Frequency (n)	Mean Practice score	p-value
<b>Gender</b>			
Male	60	2.7+0.497	0.058
Female	45	2.5+0.505	
<b>Occupation</b>			
Dentists	83	2.6+0.516	0.446
Students	17	2.6+0.493	
<b>Years of practice</b>			
0-3	42	2.6+0.492	0.153
15+	14	2.7+0.469	

**DISCUSSION**

This research was conducted among dental healthcare providers in UBTH to study their knowledge and practice regarding informed consent from patients. According to the present study, more than two-thirds of the respondents claimed they had been trained in medical ethics,

especially in informed consent. This may be responsible for the high knowledge of informed consent recorded in this study. About two-thirds (81.9%) of the respondents had excellent knowledge scores. This is comparable to other studies, (Gupta et al,2015, Farhat, 2013, Butt et al 2022) which also reported high knowledge scores.

In the current study, males had a higher mean knowledge score with respect to females. This finding is consistent with a study by Lai et al, 2017 and in disagreement with the study conducted in Lahore by Butt et al, 2022. who reported a higher mean knowledge score for females. The higher mean knowledge score recorded in the present study may not be unconnected to the fact that more male respondents took part in the research. It was observed in this study that dentists had a higher mean knowledge score among the dental professionals which also showed a very strong association (0.006). The reason for the higher mean knowledge score among dentists could be ascribed to the fact that dentists are directly involved in patient care and therefore more knowledgeable about informed consent. Previous studies have similarly reported the same (Gupta et al, 2015, Farhat, 2013). The mean knowledge score recorded in this study was almost the same irrespective of the number of years of practice. This is in contrast to other studies by Gupta et al, 2015, Butt et al, 2022 and Lal et al, 2017 respectively which reported higher mean knowledge score with an increasing number of years of practice.

On the practice of informed consent, the present study reported that the majority (97.1% and 99.0% of respondents claimed they took consent from patients and explained procedures in a language the patients understood respectively. This is in agreement with a study conducted by Butt et al, 2022, who reported that over 90.0% of dentists took consent (Butt et al, 2022). However, in our study, most of the respondents (70.5%) agreed they usually do not take written consent after taking verbal consent. This may be due to the fact that most dental professionals are in a hurry to attend to patients and may also feel verbal consent will suffice. But this is a dangerous practice as some patients may deny ever giving consent if it is not documented. Written consent is evidentiary when the need be. A few other studies have reported contrary findings. Gupta et al reported that 53.2% took written consent after verbal consent (Gupta et al, 2015). This finding was corroborated by study conducted by (Avaramova and Krassimira, 2011). A few more than half (53.3%) dental professionals in our study said they usually give a copy of the informed consent to patients while a sizeable percentage (46.7%) said they do not. This low percentage of 53.3% may suggest that dental professionals in our study do not see the need to respect a patient's rights or they are not mindful of the shifting trends in taking informed consent from patients. In another study, only 10.9% of dental professionals said they give a copy of the consent

form to patients. Our study further observed that 94.3% of dental professionals claimed they inform patients about possible consequences if treatment is refused. This is a commendable practice as patients have the right to know the consequences of refusing treatment. The practice score recorded in the present study shows that slightly more than half (60.0%) of the dental professionals had a good practice of informed consent. With the very high knowledge of informed consent recorded in this study, it is expected that this would translate to better practice by most dental professionals but this is not the case. The reason for the low percentage of practice scores documented in our study can be ascribed to the fact that many professionals do not place emphasis on written consent. In addition, many of them assume verbal consent was always adequate. Previous studies have reported similar low practice scores among dental professionals in their studies (Gupta et al, 2015, Farhat et al, 2013). This may be due to negligence on the part of the professionals or perhaps a lack of time to obtain written informed consent from patients. In the study by Farhat et al 2013, the majority of those who took consent favored verbal consent against written consent. This finding is consistent with the result of our study which reported 70.5% of dental professionals agreeing that they do not take written consent after verbal. Males recorded a higher mean practice score (2.7+0.058) compare to females who scored 2.5+0.505 with a p-value of 0.058. Our study reported better practice of informed consent among dental professionals who had worked for long years (2.7+0.469 for over 15 years of practice compared to those who had practiced for only 0-3 years and recorded a mean practice score of 2.6+0.492). This finding is supported by a previous study by Gupta et al in which there was a corresponding increase in mean practice score with the number of years of practice.

Though there was no statistically significant association between sociodemographics and the knowledge scores of the respondents in the present study, there was a strong association between practice scores and sociodemographics with respect to the gender (0.042) of the participants. In a study conducted in punja in India, Gupta recorded a strong association between knowledge and years of practice and qualification while practice score showed a strong association with qualification alone. The reason for this finding can be attributed to the fact that those with higher qualifications display better practice.

Finally, the current study examined different procedures such as oral examination 71.4%, fillings

83.8%, RCT 76.2%, simple extractions 80.0%, surgical extraction 12.4%, incision and drainage 61.9%, S&P 83.8%, curettage 81.9%, gingivectomy 62.9%, impression making 79.0% and the types of consent obtained by the respondents which were in favour of verbal consent. Our study showed that verbal consent was the preferred type of consent obtained for most of the procedures considered in this study except surgical extraction for which written informed consent was obtained. These findings are in line with a study conducted by Gupta who also reported that the majority of dental professionals only took informed consent for surgical dental procedures. This practice is not justified because even procedures not considered surgical procedures have some surgical aspect to them. For instance, RCT, simple extractions, and gingivectomy can pass for surgical procedures.

### CONCLUSION

The study noted excellent knowledge among the respondents which did not translate to good practice as only a little over half of the respondents recorded good practice of informed consent. It can be deduced from our study that dental professionals do not consider the practice of informed consent important. This is a dangerous trend that should be discouraged. This can be a source of litigations that are avoidable. In order to stem this trend, there should more emphasis on the teaching of ethics, especially at the undergraduate level.

### Financial support and sponsorship

This work received no specific grant from any funding agency in the public, commercial or not-for-profit sectors

### Conflicts of interest

The authors declare that they have no conflicts of interest.

### REFERENCES.

American Society of Anesthesiologists. Committee on Ethics: Syllabus on ethics. Available from: [www.asahq.org/](http://www.asahq.org/) 574  
PUBLIC HEALTH Croat Med J. 20

Avaramova N, Krassimira Y (2011). Patients' Informed consent in dental practice in Bulgaria. *OHDH*. 2011 Jun;10(2):80–87.

Beauchamp TI, Faden RR (1995). Informed consent: II. Meaning and elements of informed consent. In: Reich WT, editor. *Encyclopaedia of bioethics*. Rev. ed. vol. 3. New York (NY): Simon & Schuster Macmillan; p. 1240-1245.

Butt H, Babary DF, Irum F, Khan AN, Khan NR, Tahir F (2022). Knowledge and Practices Regarding Informed Consent among Dental Practitioners. *J Gandhara Med Dent Sci*; 9(3): 3-8

Convie LJ, McCain S, Campbell J, Kirk SJ, Clarke M (2018). Evaluating interventions for informed consent for surgery (ICONS): Protocol for the development of a core outcome set. *Trials*; 19(1):609

Council of Europe (1997). Convention for the protection of Human Rights and dignity of the human being with regard to the application of biology and medicine: Convention on Human Rights and Biomedicine. *European Treaty Series No. 164*. Oviedo, April 4<sup>th</sup>.

Department of Veterans Affairs, Veterans Health Administration (1996). *Veterans health administration handbook 1004.1*. Washington (DC): DVA.

Enabulele JE, Okoh M (2019). Knowledge of HIV and HIV associated Oral lesions among Nigerian Final year dental students *J Chin Med Res*, 6:1-5

Farhat W, Qiam F, Shah S.M.A (2013). Informed consent in dentistry: perceived importance and limitations in Khyber Pakhtunkhwa. *JKCD*; 3(2):14–19.

Glaser J, Nouri S, Fernandez A, Sudore RL, Schillinger D, Klein-Fedyshin M, et al (2020). Interventions to improve patient comprehension in informed consent for medical and surgical procedures: An updated systematic review. *Med Decis Making*; 40(2):119–43.

Gupta VV, Bhat N, Asawa K, Tak M, Bapat S, Chaturvedi P et al (2015). Knowledge and attitude toward informed consent among private dental practitioners in bathinda city, punjab, India. *Osong Public Health Res Perspect*; 6(2):73-8. doi: 10.1016/j.phrp.2014.12.005.

Khan AN, Khan NR, Farooq MS, Khan AA (2014). Attitude and Practices of Dentists of Pakistan Regarding Informed Consent. *Proceeding SZPGMI*; 28:85–90.

Lal R, Pal V, Kumar Punjabi S, Khawaja N, Shoro M (2017). Informed consent; A survey of knowledge, and practice of informed consent among dental practitioners in Hyderabad city Pakistan. *Professional Med J*; 24(05):772–777.

Main BG, McNair AGK, Huxtable R, Donovan JL, Thomas SJ, Kinnersley P, et al (2017). Core information sets for informed consent to



- surgical interventions: baseline information of importance to patients and clinicians. *BMC Med Ethics*; 18(1). 29. doi: 10.1186/s12910-017-0188-7.
- Paterick TJ, Carson GV, Allen MC, Paterick TE (2008). Medical informed consent: general considerations for physicians. *Mayo Clin Proc*; 83:313-9. Medline:18315998 doi:10.4065/83.3.313
- Singh VP, Osman IS, Rahmat NA, Abubaker NA, Abdul Razak NFN, Nettem S et al (2017). Knowledge and attitude of dental students towards HIV/AIDS patients in Melaka, Malaysia. *Malays J Med Sa*; 24:73-82.
- Villanueva C, Talwar A, Doyle M (2018). Improving informed consent in cardiac surgery by enhancing preoperative education. *Patient Educ Couns*; 101(12):2047-2053. doi: 10.1016/j.pec.2018.06.008
- Witt K (2017). Identity change and informed consent. *J Med Ethics* 43(6):384-390.