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THE RELATIONSHIP BETWEEN THE INCIDENT OF IMPACTED TOOTH CASES WITH THE PATIENT'S MOTIVATION TO DO ODONTECTECTOMY TREATMENT AT RSKGM FKG UI

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ABSTRACT

Background: Impacted teeth are tooth growth that is blocked by the growth of teeth in the jaw arch because they are obstructed by adjacent teeth or buried by soft tissue. Impacted teeth often occur in third molars, followed by canines. The prevalence of impacted third molars is quite high, reaching 96.56%. Impacted teeth are performed using an extraction procedure called odontectomy. The public must have the motivation to carry out odontectomy if there are complaints about impacted teeth. **Objective:** To determine the relationship between the incidence of impacted tooth cases and patient motivation to undergo odontectomy at RSKGM FKG UI in 2023. **Method:** Analytical research with a cross sectional approach. A sample of 50 patients who visited RSKGM FKG UI in the oral surgery room for the period September 2023. The tool for measuring the incidence of impacted teeth uses a recapitulation form and patient motivation using a questionnaire. **Results:** The majority of cases of impacted teeth were in class II (76%), most of the patients' motivation for undergoing odontectomy was good (70%). There is a significant relationship between the incidence of impacted teeth and the patient's motivation to undergo odontectomy because the p-value is 0.000. **Conclusion:** Impacted teeth on average occur in women aged 21-30 years with a class II classification.

Keywords: Impacted teeth, Motivation, Odontectomy

Introduction

Impacted teeth are teeth growth that is blocked by the path of tooth growth in the jaw arch because it is blocked by adjacent teeth or buried by soft tissue. Impacted teeth occur in permanent teeth, namely molar teeth, canine teeth and premolars, especially more common in the third molars of the upper jaw and lower jaw due to growth that is not in accordance with the position of the jaw arch. Impacted teeth are more common in triple molars followed by canines[1]. The prevalence of triple molars impaction teeth shows that the triple molar-impaction teeth are quite high, reaching 96.56%[2].

The third molar-impaction tooth classification is often used to assess and predict difficulty in surgical procedures[3]. The depth and relationship to the occlusal surface of the second

molar vertically namely classes A, B, C and the relationship of the impacted tooth with the mandibular ramus horizontally namely class I, II and III. The classification of third molar impact teeth based on their regulation is, vertical, horizontal, mesioangular, distoangular, bucoangular and linguoangular[4].

Signs and symptoms of impacted teeth can be inflammation or swelling in the area around the impacted tooth, reddish gums in the impact area, neighboring teeth will experience erosion or resorption due to the abnormal location of the impacted teeth, severe pain in the area of the impacted tooth and can radiate to the temple, even the impact can cause fractures in the jaw. The impact that arises if the impacted tooth is not treated can be in the form of caries, infection of the surrounding hard and soft tissues, and can even develop into cysts or tumors[5].

Treatment of impacted teeth includes drug administration, odontectomy and operculectomy. Odontectomy is a method of removing teeth in an impaction state from the socket by performing a flap or surgery and performing an alveolectomy. Impacted teeth are mostly done with surgical extraction, which is a tooth that grows incompletely because of an oblique position or obstructed with periodontal tissue and / or alveolar bone so that to take the tooth must open periodontal tissue and possibly also the alveolar bone. Cases that can be done in outpatient poly are simple impaction cases and usually only one tooth, while those that can be done in the operating room are complex and more than one impact case[6].

Patients who visit the Oral Surgery Poly due to the desire of impacted dental patients to recover completely, things that can hinder the process of impacted dental care from the motivational aspect, one of which is constrained by the many costs incurred for impacted dental treatment, namely motivation is related to desire, drive and goal[7]. Tendency in the relationship between public knowledge about impacted teeth on motivation to visit the Oral Surgery Poly with cross-tabulated results, namely as many as 31 respondents (63%) in the knowledge criteria with strong motivation[8].

Patient motivation is defined as an inner drive that causes the patient to visit a health facility to care for oral and dental health. The existence of this motivation will have a positive impact in increasing patient cooperation and cooperation in carrying out a procedure. The emergence of motivation is influenced by several factors, namely communication between patients and dentists, health services and patient behavior itself[9].

Motivation is needed and important in everyday life to achieve a perfect health condition both physically, mentally and socially, especially the patient's motivation to recover from an illness or motivation to improve the degree of dental and oral health[9]. People need a healthy life to prevent the onset of a disease. Preventing the onset of disease by means of people caring more about maintaining and caring for dental and oral health from an early age and most importantly the motivation to heal[10].

Methods

The research method used in this study is an analytical survey with a cross sectional design, which is a study conducted by taking or collecting existing data with the aim of providing an overview or description of a situation objectively at a certain time[11].

Sampling using accidental sampling by taking samples of patients visiting the RSKGM FKG UI Oral Surgery Clinic according to the specified time in September 2023. The sample size was 50 respondents, all research respondents successfully participated in research activities to completion. Study respondents only filled out questionnaires before odonectomy and after odonectomy. The patient motivation questionnaire consists of 10 questions: 8 positive value statements (+) and 2 negative value statements (-). The assessment criteria use the Likert Scale. Each question answer is given a score of 1 to 5, the highest total motivation score is 50 and the lowest is 10 which is divided into 3 categories, namely: less 10-16, medium 17-33, good 34-50

Results and Discussion

Table 1

Characteristics of Respondent by Gender

No	Gender	n	(%)
1	Male	16	32
2	Female	34	68
Total		50	100

Table 1. shows that the most respondents are female amounting to 34 respondents (68%).

Table 2
Characteristics of Respondent by Age

No	Age	n	(%)
1	<21 Years	1	2
2	21-30 Years	40	80
3	>30 Years	9	18
	Total	50	100

Table 2. shows that the most respondents are aged 21-30 years with a total of 40 respondents (80%).

Table 3
Frequency Distribution Based on Impacted Tooth

No	Impacted Tooth	n	(%)
1	Class I	11	22
2	Class II	38	76
3	Class III	1	2
	Total	50	100

Table 3. shows that most respondents had class II impacted tooth totaling 38 respondents (76%).

Table 4
Frequency distribution based on Patient Motivation

No	Motivation	n	(%)
1	Good	35	70
2	Moderate	13	26
3	Less	2	4
Total		50	100

Table 4. shows that most respondents had the motivation to do a good odontectomy with 35 respondents (70%).

Table 5
***Chi Square* Statistical Test Result**

Table 5. shows that the *chi square* result obtained a *p-value* 0.000 smaller then *alpha* 0.05.

Variabel	*Alpha*	*p-value*
Cases of Impacted Tooth with Patient Motivation	0.05	0.000

So there is a significant relationship between the incidence of impacted tooth cases and the patients motivation to implementation odontectomy at RSKGM FKG UI.

The frequency distribution based on age is mostly respondents aged 21-30 years with a total of 40 respondents (80%). Impacted teeth are most prevalent in wisdom teeth or third molars. The process of wisdom tooth seed formation begins before the age of 12 years and growth ends at about 25 years of age[12]. The growth of third molars in a person will take place at the age of 17-30 years, at this age someone who has a position abnormality in the growth of third molars will feel the impact of the growth of these teeth, often feel pain at the base of the jaw, swelling, difficulty swallowing food and speaking, can even cause headaches[13].

This statement is supported by Saraswati (2021), which states that tooth impaction is a tooth that is pent up and blocked from growing out caused by nearby teeth, causing the tooth to not grow completely. The most frequently impacted tooth is the third molar. Normal humans have four third molars, that is, on each side of the jaw; top right, top left, bottom right, but often these third molars do not manage to appear and instead get trapped in the jawbone causing excessive pain[14].

Impacted teeth are divided into two states, namely fully impacted or total impacted and partially impacted[15]. The frequency distribution based on the incidence of impacted teeth can be seen that most respondents have class II impacted dental complaints totaling 43 people (86%) and the remaining 13 people (26%) have class I impacted teeth complaints, according to the results of Fragiskos (2017) research, most respondents have class II complaints where the distance between the lower two distal molars with the mandibular ramus is smaller than the mesiodistal width of the lower three molars[16].
Class II also means a small amount of bone covering the distal surface of the tooth and inadequate space for tooth eruption, for example

the mesiodistal diameter of the tooth is greater than the available space. In class II, the gap next to the distal molar. Impacted teeth occur most in third molars. Complaints felt by respondents include swelling and pain in the gums or jaw of the teeth. This statement is reinforced by research by Rozana, et al (2022), suggesting that the problem that is often complained by people with impacted teeth is feeling uncomfortable doing things related to the oral cavity[17].

The results of the study obtained the motivation of patients to perform odontectomy at RSKGM FKG UI that moderate motivation amounted to 13 respondents (26%), good motivation amounted to 37 respondents (74%), and motivation was lacking (0%), it can be concluded that most patients have good motivation to do odonectomy. Motivation was assessed based on the answers in the questionnaire. The pain experienced by respondents in the case of triple molar-impacted teeth became the impetus or motivation to perform odonectomy.

The motivation to perform an odonectomy arises because of the desire to eliminate problems in the health of one's teeth and mouth. In line with Sardiman (2018), there are three motivational functions, namely 1) motivation in this case is the driving force of every activity carried out. 2) Motivation can provide direction and activities that must be done in accordance with the goal. 3) motivation as a selection of actions, namely determining what actions must be done in accordance with achieving goals[18].

The results of the Chi Square correlation test get a p-value of 0.000 smaller than alpha 0.05, so it can be concluded that there is a relationship between the incidence of impacted dental cases and the patient's motivation to perform odontectomy at RSKGM FKG UI. There are still many people complaining about the pain felt but do not know the occurrence of impacted teeth and what treatment actions should be taken. The public is expected to maintain good dental and oral health by caring more about seeing a dentist.

The lowest average length of work is class IIA vertical and the highest is class IIC mesioangular. According to Pederson (2016), the removal of vertical class IIA impaction teeth is faster because the position of the dental crown is on the occlusal surface while the class IIC mesioangular position of the dental crown is very deep or below the cervical line of the mandibular second molar[19]. If the tooth is impacted and the crown is wide, division of the crown will be used to minimize bone removal thereby reducing pain and potential swelling in the patient[12].

Conclusion

1. The incidence of impacted teeth cases in patients obtained the result that impacted teeth were mostly in class II amounting to 38 respondents (76%).
2. The motivation of patients to perform odontectomy was obtained that most patients had good motivation amounting to 35 respondents (70%).
3. There is a significant relationship between the incidence of impacted dental cases and the patient's motivation to perform odonectomy aimed at a p-value of 0.000.

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