

PATIENTS` REACTIONS TO CANCELLATION OR POSTPONEMENT OF ELECTIVE SURGICAL OPERATIONS IN A TEACHING HOSPITAL AT KHARTOUM, SUDANIsmat Mohammed Mutwali^{1*}, Sadigh Mohammed Abdalhalim² and Aisha Ibrahim A. Omer¹¹Faculty of Medicine, Alzaeim Alazhari University, Khartoum Bahri, Sudan.²Department of Psychology, Faculty of Arts University of Khartoum, Sudan.***Corresponding Author: Ismat Mohammed Mutwali**

Faculty of Medicine, Alzaeim Alazhari University, Khartoum Bahri, Sudan.

Article Received on 07/12/2017

Article Revised on 28/12/2017

Article Accepted on 18/01/2018

ABSTRACT

Cancellation or postponement on the day of surgery has significant psychological, social and financial impact on the patients and their families. It can cause significant disappointment and frustration to the patient and his family. Most of the patients feel the sudden cancellation/postponement of surgery as a strong negative experience. Aim and objectives: Our aim was to describe how patients and their families reacted to cancellation / postponement of their elective surgery on the day of surgery, and whether the gender and the reasons behind cancellation/postponement have effect on the patients` negative reactions and to find an action measure for reducing the incidence of this negative reaction. **Methods:** A prospective descriptive study conducted at a teaching hospital at Khartoum Bahri Sudan during 2015. Direct observation and face to face interview methods were employed for collection of data in especially designed structured questionnaire. **Results:** A hundred and twenty six patients participated in the study. 82 (65.1%) were males. The mean age of the participants was 33.36 year \pm 23.97 and the age range was 1year – 86 years. 112 patients (88.9%) showed different degrees of negative reactions and only 14 patients (11.1%) showed a positive reaction. Most of the patients` families` reactions were negative (78.6%), 30% of them showed a very high degree of negative reaction and only 21.4% of the patients` families showed some degree of positive reaction. More male than female patients showed a higher degree of negative reactions. **Discussion and conclusion:** Our study demonstrated that the majority of the Sudanese patients and their families reacted negatively to late cancellation/postponement of their elective surgery. Men reacted to a higher degree of negative reaction than women. Early recognition and correction of the administrative and medical problems; detailed explanation of the reasons of cancellation/postponement to the patients and their families and answering their questions, reassuring them about what will happen further, may reduce the incidence and the degree of the negative reaction, raise the patient compliance to the planned surgery and optimize the outcome of surgery.

KEYWORDS: patients` reactions, cancellation/ postponement, negative reactions.**INTRODUCTION**

Late cancellation or postponement of elective surgical operations is a major long standing problem for many health care facilities, all through the world. Public hospitals in the developing countries have limited financial resources, to cope with the increased demands for surgical services. Elective surgery cancellation represents a significant loss of income and waste of resources for the hospitals.^[1,2] Cancellation or postponement on the day of surgery also have significant psychological, social and financial impact on the patients and their families. This short notice cancellation or postponement can cause significant disappointment and frustration. Patients who have their elective surgery cancelled at the day of surgery might have great difficulty for planning and rearrangement of their own commitments for new appointments of their surgery. In

the developing countries, where the notion of the big families is still deeply rooted, many of the patient`s relatives friends and even neighbours sympathize with the patient preoperative and postoperative as sample of social and psychological support. Hence the disappointment and frustrations that result from the late cancellation postponement of the elective surgery, affect not only the patient but also the patient`s family and relatives.^[1-3]

The magnitude of the problem of elective surgical operations` cancellation varies significantly depending on the type of hospital, whether it is a teaching hospital or not, on the capacity of the hospital and on the different surgical subspecialty, individual surgeon and on how data were collected and cancellation was defined. The rate of cancellation varies significantly from 1% to

40% and different studies reported different incidence, reasons and causes for cancellation.^[4-8]

The cancellation or postponement of elective surgical operations is a problem that faces hospital administrations worldwide. Many studies were published discussing the rates, reasons, causes and prevention of late cancellation. These different studies reported different results as well as different measures to be taken for prevention of late cancellation/ postponement of elective surgical operations.^[1-10] Few studies in the literature discussed the implications of the late cancellation/postponement on the patients and their families.

For the patients, surgical operations can mean a strong psychological and psychosocial reaction, related to their thoughts about pain, risk of complications and even death. The patients' feeling and thoughts are filled with many worries, concerns and anxiety, from the moment of the decision of the surgical operation up to the transport to the operating room. Patients' feeling and worries continue through all this period of waiting to surgery, if complicated by sudden cancellation or postponement, then most of the patients feel this as a strong negative experience.^[11, 12] This negative reaction may be expressed as the patients' thoughts that they could not participate or discuss the decision of cancellation/postponement and that they did not receive an acceptable explanation. This group of patients has an impression that the information given to them as reasons for cancellation / postponement was inadequate. These patients may experience worries, anxiety, depression and disappointment. This negative reaction may lead to the patients' feeling and thoughts that the cancellation could lead to deterioration of their condition. The waiting time may cause unnecessary suffering and possible deterioration in the patient's health which in turn may lead to delayed recovery and potentially unfavourable outcome.^[13-15] There is another group of patients that react positively to the decision of cancellation / postponement. This positive reaction is expressed by some patient especially when the reasons of cancellation / postponement was acceptable for them e.g. when postponement was for an emergency. This group of patient feels that the information given to them and the explanations were clear and they were able to understand the decision. The waiting time, for the group of patients with negative reaction, can be perceived in different ways, some patients may feel uncertainty, fear, distress other may feel that this time is long, heavy and dreary.^[11,12] The patients who react positively to cancellation / postponement feel that the added time for the new appointment can be used positively at home with the family. A third group of patients may express their negative reaction strongly by anger and quarrel with the staff. This group is disappointed and feels angry because they will have repeated investigations and procedures, they will stay more in the hospital and they will have more expenses.^[16]

The purpose of the present study was to describe how patients and their families were reacted to cancellation /postponement of their elective surgery on the day of surgery. Our objective were to establish the type of the patients' reaction to the decision of cancellation/postponement, and how their families were also reacted, whether the gender and the reasons of cancellation/ postponement affect the negative reaction; And to find an action measure to be applied in order to reduce the incidence of the patients' and their families' negative reaction.

METODOLOGY

This is a prospective descriptive study conducted at a teaching hospital at Khartoum Bahri Sudan during 2015. Khartoum Bahri teaching hospital is a tertiary hospital with a bed capacity of 500 beds and a separate accident and Emergency department of 200 beds and an obstetrics and gynaecology department with its separate emergency department. The present study was conducted within the surgical theatre complex of 6 operating rooms that operate 5 days per week 8 hours a day, where operations of the general surgery, orthopaedics, plastic surgery, paediatric surgery ENT and urological surgery are performed.

Data were collected using a specially designed questionnaire. The questionnaire included, beside the demographic data of the patients, a written consent for participation in the study and different types of patient's reactions to be observed and recorded by the observer. Direct observation and face to face interview methods were employed for collection of data. The different types of the patients' reactions were determined from literature review and after extensive discussion among researchers. The questionnaire was tested before being used for data recording. The first author, chief nurse of the theatre complex and a psychologist were involved in data recording. Data was analyzed using SPSS as a soft ware and descriptive statistics were determined; Chi square test was used to determine the significance of the differences between variables. The study was approved by the ethical committee of Khartoum Bahri hospital as well as the ethical committee of the Alzaeim Alazhari University.

RESULTS

A hundred and twenty six patients participated in the study. Out of the total number of the participants 82 (65.1%) were males. The mean age of the participants was 33.36 year \pm 23.97 and the age range was 1 year – 86 years.

Out of the total number of the participants 112 patients (88.9%) showed different degrees of negative reactions and only 14 patients (11.1%) showed a positive reaction. Table1 shows the reaction of the patients to cancellation postponement of their elective surgery.

Table1: Patients` Reaction to cancellation/postponement of elective surgery, 2015.

Patient`s Reaction	NO	%
Kept silent not able to express him/her self	53	42.1
Was angry and refused to talk	45	35.7
Was very angry and showed bad temperament but later apologized	14	11.1
Was pleased and calm	14	11.1
Total	126	100

Most of the patients` families` reactions were negative (78.6%), 30% of them showed a very high degree of negative reaction and only 21.4% of the patients` families showed a some degree of positive reaction and

understanding of the reasons of cancellation after discussion with surgical team. Table 2 shows the patients` families` reactions.

Table 2: Patients` families` reactions to cancellation/postponement of elective surgery.

Patients` families` reactions	NO	%
Were very angry and quarreled with doctors	30	23.8
Were hopeless waiting	33	26.2
Tried to conceal anger and sadness	36	28.6
Discussed the reasons of cancellation with the surgical team calmly	27	21.4
Total	126	100

More male than female patients showed an advanced negative reaction. Table 3 illustrates how gender affects

the reactions of the patients to cancellation/postponement of elective surgery.

Table 3: shows how males and females reacted to cancellation postponement of elective surgery.

Gender	Patients` reactions				Total
	Kept silent not able to express him/her self	Was angry and refused to talk	Was very angry and showed a bad temperament but later apologized	Was pleased and calm	
Male	31	30	12	9	82
Female	22	15	2	5	44
Total	53	45	14	14	126

Regarding the reasons of cancellation/postponement of elective surgery, there were three groups of reasons: Uncontrolled chronic diseases of the patients; financial reasons and administrative reasons. 43.6% of the patients had their surgery cancelled due to co morbid diseases, 21.4% for financial reasons and 34.9% for administrative reasons. There were some differences in the patients` reactions regarding the deferent reasons of cancellation; however, these differences were not statistically significant ($P > 0.05$). Patients` families` reactions to different reasons of cancellation/postponement of elective surgery were variables. There were some insignificant differences in the reaction of the patients` families to different reasons of cancellation. ($P > 0.05$)

DISCUSSION

Our results when compared with others, we found that 88.9% of our patients reacted negatively to the cancellation/postponement of their elective surgery, seems to be higher percentage of our patients developed negative reactions. Dadas et al (2004) reported that 30% of the patients had extreme negative feeling and 34% expressed negative feeling , while 54% of the patients shed tears following cancellation of their elective

surgery.^[17] only 11.1% of our patients showed extreme negative reaction. Ivarsson et al (2004) reported that 2/3 of the patients reacted negatively especially when cancellation was due to administrative reasons and that female patients had higher degree of negative reactions that expressed as prolonged depression. Our results showed that men developed a higher degree of negative reactions than women, without significant differences. There were some differences in the patients` reaction to different reasons of cancellation/postponement; however, these differences were insignificant statistically. Out of the total number of our patients` families 78.6% reacted negatively to cancellations/postponement of surgery; compared with other studies; Dadas reported that "30% of the patients` family members entered into a state of helpless waiting and further 30% of them concealed sadness".

Recognizing the reaction of the patients and their families to cancellation/postponement of elective surgery is important, because these negative reactions, disappointments, anxiety and depression that results from the late cancellation, may affect the outcome of the planned surgery or at least may reduce the patient`s compliance to surgery.^[2,18,19]

One objective of conducting our study was to find measures to be taken in order to prevent the patient's negative reaction to unavoidable late cancellation/postponement of elective surgery, with its negative effects on the outcome of the planned surgery. One action to be taken is the early recognition and correction of the administrative and medical problems.^[11] Detailed explanation of the reasons of cancellation/postponement to the patients and their families and answering their questions, reassuring them about what will happen further, may reduce the incidence and the degree of the negative reaction, raise the patient compliance to the planned surgery and optimize the outcome of surgery.^[13,14,19]

One limitation of our study is the method that we used to record reaction of the patients, by direct observation and face to face interview and not by using a validated scale. We tried to reduce the possible bias that may result from this method by using a structured questionnaire and training those who were involved in recording the reactions of the patients and their families.

Further studies, are warranted to investigate the effect of late cancellation/postponement of surgery on the outcome of the planned surgery.

Our study demonstrated that the majority of the Sudanese patients and their families reacted negatively to late cancellation/postponement of their elective surgery. Men reacted to a higher degree of negative reaction than women.

ACKNOWLEDGEMENT

The authors would like to acknowledge the chief nurse at the surgical theatre of Khartoum Bahri teaching hospital, Mrs. Sakinah O Dahia for her help in recording the data. They are also thanking Dr. Awadelkarim M E for the revision of the draft of the manuscript.

REFERENCES

- Dimitraidis PA, Lyer S, Evgeniou E. The challenge of cancellation on the day of surgery, *Int J Surg*, 2013; 11: 1126 – 1130. <http://dx.doi.org/10.1016/j.ijssu.2013.09.002>.
- Tait AR, Voepel-Lewis T, Munro HM, Gutstein HB and Reynolds PL. Cancellation of paediatric outpatient surgery: economic and emotional implications for patients and their families, *J Clin Anaesth*, 1997; 9(3): 213 – 219.
- Zafar A, Mufti TS, Griffin S, Ahmed S, Ansari JA, Cancelled elective general surgical operations in Ayub teaching hospital, *J Ayub Med Coll Abbottabad*, 2007; 10(3): 64 – 66.
- Caesar U, Karlsson J, Olsson LE, Samuelsson K and Oloffsson EH. Incidence and root causes of cancellations for elective orthopaedics procedures: a single centre experience of 17,625 consecutive cases. *Patient Safety in Surgery*, 2014; 8: 24. <http://www.pssjournal.com/content/8/1/24>.
- Mesmar M, Shatnawi NJ, Faori I and Khader YS. Reasons for cancellations of elective operations at a major teaching referral hospital in Jordan. *East mediterr Health J*, 2011; 17(8): 651-655.
- Kumar R, Gandhi R. Reasons for cancellations of operations on the day of intended surgery in multi-disciplinary 500 bedded hospital, *J Anaesthesiol Clin Pharmacol*, 2012; 28: 66-9.
- Ezike HA, Ajuzieogu VO, Amucheazi AO. Reasons for elective surgery cancellation in a referral hospital, *Ann Med Health Sci Res*, 2011; 1(2): 197-202.
- Mutwali IM, Abbass AM, Elkheir IS, Arbab SS, Bur A, Geregandi T. Cancellation of elective surgical operations in a teaching hospital at Khartoum Bahri, Sudan. *Sudan Med Monit*, 2016; 11: 45-51. DOI: 10.4103/1858-5000.185230.
- Azari-Rad S, Yontef AL, Aleman DM, Urbach DR. Reducing elective general surgery cancellations at a Canadian hospital. *Can J Surg*, 2013; 56: 113-8.
- Chalya PL, Gilyoma JM, Mabula JB, Simbila S, Ngayomela IH, Chandika AB, et al. Incidence, causes and pattern of cancellation of elective surgical operations in a university teaching hospital in the Lake Zone, Tanzania. *Afr Health Sci*, 2011; 11: 438-43.
- Bodil Ivarsson, Per Ola Kimblad, Trygve Sjöberg, Sylvia Larsson. Patient reactions to cancelled or postponed heart operations *Journal of Nursing Management*, 2002; 10(2): 75–81. DOI: 10.1046/j.0966-0429.2001.00293.
- Bodil Ivarsson, Sylvia Larsson, Trygve Sjöberg Postponed or cancelled heart operations from the patient's perspective, *Journal of Nursing Management*, 2004; 12(1): 28–36. Doi:10.1111/j.1365-2834.2004.00400x
- Caesar et al Incidence and root causes for elective orthopaedic procedures: a single center experience of 17,625 consecutive cases, *Patient Safety in Surgery*, 2014; 8: 14. doi:10.1186/1754-9493-8-24.
- Magnusson HK, Fellander- Tsai L, Hansson MG, Ryd L. Cancellation of elective surgery may cause an inferior postoperative course. The “invisible hand” of health care prioritization? *Clinical Ethics*, 2011; 6: 27-31.
- Laisi J, Tohm O H, Keranen U. Surgery cancellation on the day of surgery in a Finnish hospital. *Scand J Surg*, 2013; 102: 204 – 208. <http://www.pssjournal.com/content/8/1/24>.
- Bresser PJ, Sexton D, Foell DW. Patients responses to postponement of coronary artery bypass graft surgery, *Journal of Nursing Scholarship*, 1993; 25(1): 5 – 10. doi:10.1111/j.1547–5069–1993tb00746x.
- Sevgi Dadas, Fatima Eti-Aslan. The causes and consequences of cancellation in planned orthopaedic surgery, the reactions of patients and their families,

- Journal of Orthopaedic Nursing, 2004; 8(1): 11 – 19.
<http://dx.doi.org/10.1016/j.100n.2003.12.001>.
18. Kennedy MJ. An exploratory study of responses of the patient to the cancellation o f his surgery, International Journal of Nursing Studies, 1969; 6: 121 – 132.
 19. Davenport Y, The waiting period prior to cardiac surgery – when complicated by sudden cancellation. Intensive Care Nursing, 1991; 7(2): 105 – 113. doi:10.1016/0266-612x(91)90017L.