

# THE LEVEL OF ANXIETY OF PATIENTS WITH POSTPONED ELECTIVE SURGERIES IN A TERTIARY GOVERNMENT HOSPITAL

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## ABSTRACT

Preoperative anxiety is a challenging concept in the preoperative care of patients. Most patients who are about to undergo an elective surgery experience anxiety and it is widely accepted as an anticipated response. Postponement of elective surgical procedures causes significant emotional trauma in the patients as well as on their families and the community in general, and its impact on hospital resources is huge due to prolonged hospitalization and high cost of health care. A descriptive correlational design was used to describe the data. The data was analyzed using frequency and simple percentage, weighted mean, paired *t*-test, and Chi-square test. A questionnaire based on the State-Trait Anxiety Inventory (STAI) by Charles Spielberger, R. L. Gorsuch, and R. E. Lushene was used which consisted of 40 self-reported items pertaining to anxiety affect. To ensure ethical compliance, an informed consent was obtained from the respondents and data was then held with utmost confidentiality. The results show that Orthopedic cases account for 38.89% which is the most commonly postponed elective surgeries, due to the length of the surgery. Therefore, the level of anxiety in patients with postponed elective surgeries is moderately high (40.5) and a significant difference between the level of state anxiety before the scheduled surgery and prior to rescheduled surgery with *p*-value (0.023) was observed at  $\alpha=0.05$  and there was no significant difference in the trait anxiety with the *p*-value (0.740) at  $\alpha=0.05$ .

**Keywords:** *Elective surgery, Postponement, Anxiety, Operating Room, Patient Education, Service Delivery System*

## INTRODUCTION

Postponement due to the delay of previous surgeries is the most common cause of anxiety because the anticipated duration of the surgery exceeds in the operating room's scheduled time. Often, the duration of the procedure is underestimated and the preparation time, which includes the induction of anesthesia, is not included in the scheduling. Thus, overbooking of surgeries occurs. Also, postponement of surgery occurs when an emergency surgery is performed in an

Operating Room (OR) wherein elective surgeries have been scheduled causing further delay of the planned surgery (Marques, Captivo & Vaz Pato 2012).

Elective surgery postponement always leads to insufficient utilization of manpower and hospital resources and can also lead to an increase in patient's treatment expenses due to prolonged hospital stay and, in many cases, repetitions of pre-operative preparations and management. Postponement of elective surgical procedures also cause significant emotional trauma to the

patients as well as to their families and the community in general. Its impact on hospital resources is huge due to prolonged hospitalization and high cost of health care. Repeating postponements have implications for patient satisfaction, staff morale, hospital-patient relationship and training (Chalya *et al.*, 2011). In the Philippines, this is yet to be addressed formally. Sudden postponement of scheduled surgeries acts as a parameter of efficiency in the management system and quality health service. Quality healthcare system is characterized by safe and efficient healthcare service in a timely manner (Taner, Sezen & Antony, 2007).

**Purpose of the Study**

The purpose of this study is to explore the magnitude of the problem, the natural course of anxiety in patients with postponed elective surgeries and its significance in the recurrence of the phenomenon in order to formulate nursing interventions that aim to provide optimal care, thus minimizing further postponement of surgeries. According to Hovlid *et al.*, (2012), redesigning the work process has significantly reduced the postponement and has increased the number of performed surgeries.

**Framework**

The study utilized the cognitive theory of psychological stress and coping by Lazarus, (1990). The individual and his environment are subsisting in a dynamic relationship, where stress is the psychological and emotional state is internally embodied as a part of a stressful transaction. The two key concepts in this process are appraisal and coping (Folkman *et al.*, 1986).

**RESEARCH METHODOLOGY**

A descriptive-correlational design was used. A purposive sampling was utilized to select 18 respondents in Vicente Sotto Memorial Medical Center (VSMMC) in the Surgical Ward, Gynaecologic Ward, Orthopaedic Ward and PhilHealth Ward, aging from 18-60 years old. State-Trait Anxiety Inventory (STAI) (Spielberge *et al.*, 1983) was used in this study. Ethical issue was employed, such as- informed consent from the respondents was secured. The gathered data were

tabulated and analyzed.

**RESULTS AND DISCUSSION**

*Table 1: Reason for postponement of surgery*

Reason for postponement	Type of Surgery				Total		Percentage
	ENT	General Surgery	Gynecologi	Orthopedic	Urologic		
Physiological Factors	1	2	0	0	1	4	22.22 %
Availability of or Theatre	1	3	0	7	0	11	61.11 %
Pre-operation requirements	1	1	1	0	0	3	16.67 %

The availability of the OR theatre accounts for 61.11% is one of the common reasons behind the postponement of the elective surgery. On the other hand, 22.22% comprises physiological factors followed by pre-operation requirements, comprising 16.67%. Emergency cases that needs to be prioritized are the major reason for the further delay of elective surgeries. VSMMC has only two operating rooms designated for emergency cases, thus more than two emergency surgeries disrupt the scheduled surgeries. This is evident in most of the studies wherein it is indicated that the lack of time available in the operating room causes failure of operation in correct time hence leading to deterioration of health status of the patient. Increased number of emergency admissions is one of the most important causes identified to cause postponement of elective surgeries (Gonzales- Arevalo *et al.*, 2009; Kumar & Gandhi, 2012; Schofield *et al.*, 2005). Physiological factors such as hypertension and hypoglycemia are among other reasons for postponement of surgery. Pre-existing hypertension is one of the most common medical reasons for postponing surgery. It can induce a variety of cardiovascular responses that potentially increase the risk of surgery, including diastolic dysfunction from left ventricular hypertrophy, systolic dysfunction leading to congestive heart failure, renal impairment, and cerebrovascular and coronary occlusive disease (Bisognano, 2016).

**Table 2: Weighted mean of the Level of Anxiety**

State Anxiety			Trait Anxiety		
Statement	Mean	Interpretation	Statement	Mean	Interpretation
1. I feel calm*	1.78	Somewhat	21. I feel pleasant*	1.67	Not at all
2. I feel secure*	1.22	Not at all	22. I tire quickly	1.72	Not at all
3. I am tense	2.50	Somewhat	23. I feel like crying*	2.89	Moderately so
4. I am regretful	1.50	Not at all	24. I wish I could be as happy as others seem to be	3.83	<b>Very much do</b>
5. I feel ease*	1.44	Not at all	25. I am losing out on things because I can't make up my mind soon enough	2.28	Somewhat
6. I feel upset	2.78	Moderately so	26. I feel rested*	1.39	Not at all
7. I am presently worrying over possible misfortunes	3.00	Moderately so	27. I am calm, cool and collected*	1.39	Not at all
8. I feel rested*	1.72	Not at all	28. I feel that difficulties are piling up so that I cannot overcome them	2.17	Somewhat
9. I feel anxious	2.50	Somewhat	29. I worry too much over something that really doesn't matter	1.94	Somewhat
10. I feel comfortable*	3.67	<b>Very much do</b>	30. I am happy*	1.83	Somewhat
11. I feel self-confident*	1.11	Not at all	31. I am inclined to take things hard	2.06	Somewhat
12. I feel nervous	2.56	Moderately so	32. I lack self-confidence	1.83	Somewhat
13. I am jittery	2.50	Somewhat	33. I feel secure*	1.17	Not at all
14. I feel high strung	2.33	Somewhat	34. I try to avoid facing a crisis or difficulty*	1.39	Not at all
15. I am relaxed*	1.22	Not at all	35. I feel blue	2.56	Moderately so
16. I feel content*	1.94	Somewhat	36. I am content*	1.33	Not at all
17. I am worried	2.50	Somewhat	37. Some unimportant thought runs through my mind and bothers me	2.17	Somewhat
18. I feel over-excited and rattled	3.78	<b>Very much do</b>	38. I take disappointments so keenly that I cant put them out of my mind	2.56	Moderately so
19. I feel joyful*	1.22	Not at all	39. I am a steady person*	1.28	Not at all

1.00-1.75= Not at all; 1.76-2.50=somewhat; 2.51-3.25=moderately so; 3.26-4.00= Very much do, (\*means reversed scoring)

The table shows the statements in which state of anxiety is being presented. Among these, the statement “I feel over-excited and rattled” ranks the highest with a grand weighted mean of 3.78 which is very much manifested by the patient a night prior to the scheduled surgery and the night prior to the rescheduled surgery. This is a common feeling among the preoperative patients in which they describe it as a feeling of uneasiness. They are usually most anxious about what could possibly go wrong during the surgery which is evident in their frequent asking of questions regarding the proposed operation. Insufficient patient education may be related to nurse staffing since it influences the quality of nursing care. The quality of nursing care is related to the appropriate execution of assessments and interventions intended to optimize patient outcomes and prevent adverse events. It is also influenced by individual nurse characteristics such as knowledge and experience, as well as human factors such as fatigue. In addition, it is also influenced by the systems nurse's work, which involve not only staffing levels, but also the needs of all the patients for a nurse or nursing staff, responsible for the availability along with organization of other staff and support services, and the climate and culture created by leaders in that setting.

**Table 3: Paired t-test Summary on the Significant Difference between Level of Anxiety Before and After the Postponed Surgery**

Variables	t- critical	df	t-statistics	P-value	Decision	Interpretation
State	2.093	19	-2.457	0.023	Reject	There is significant difference
Trait	2.093	19	0.337	0.740	Accept	There is significant difference

*a=0.05 level of significance*

In terms of state of anxiety, the *t*-statistics value is greater than the *t*-critical value and the *p*-value (0.023) is less than the significant level (0.05) thus there is significant difference between the level of state anxiety before and after the postponed elective surgery. However, in terms of trait anxiety, the *p*-value (0.740) is greater than the significant level (0.05) thus there is no significant difference between the level of anxiety before and after the postponed elective surgery.

A higher anxiety level was noted in patients with postponed elective surgery from low to moderate

anxiety. State of anxiety describes the experience of unpleasant feelings when confronted with specific situations, demands, or a particular object or event. This anxiety arises when the person makes a mental assessment of some type of threat (Hatfield, 2015). The state of anxiety (postponement of the elective surgery) causes further anxiety in patients particularly on what to expect inside the Operating Room, possible complications of postponement, and financial constraints in relation to prolongation of hospital stay. On the other hand, the trait of anxiety did not show any significant difference prior to the scheduled surgery and during the postponement of surgery.

## CONCLUSION

### Summary of findings

Findings of the study revealed that most of the postponed elective surgeries are orthopedic surgeries such as Open Reduction and internal fixation, due to the length of the surgery which predisposes to postponement of succeeding elective surgeries. On the other hand, the availability of the OR theatre accounts for the major reason on postponement of elective surgery due to prioritization of emergency cases and insufficient OR theatres to accommodate multiple emergency surgeries thus disrupting the OR schedule. Next common reason for postponement is due to physiological factors such as hypertension and hypoglycemia, followed by compliance to pre-operation requirements.

Based on the data gathered, the researcher has come up with the conclusion that the level of anxiety in patients with postponed elective surgeries is moderately high (40.5) wherein there is a significant difference between the level of state anxiety before the scheduled surgery and prior to rescheduled surgery. This concludes that the postponement of the surgery which is perceived as a threat, increases the level of anxiety among surgical patients and thus proper patient education of the nurse should be implemented. This can be met by properly assessing patient's knowledge about the surgery in order to provide proper patient education thus reducing the level of anxiety. Anxiety is a personal characteristic and is not related to the perceived threat for the patient. So, for this reason, there is no significant difference on the level of anxiety in terms of trait of anxiety. In addition, further delay in the scheduled surgery causes an increase in anxiety due to financial constraints brought about by prolongation of hospital stay since most of the

respondents are indigent. Information on accessible government health institutions and available social services should be provided in order to address the financial concerns of the patient. However, there is no significant relationship between the level of anxiety of patients with postponed elective surgeries and patient's profile in terms of age, gender, types of surgery, previous surgery experience and reason for postponement.

## RECOMMENDATIONS

Based on the study and analysis of the answered questionnaire and findings, researchers would like to recommend the following:

### To the Hospital Administration

The administration must formulate an enhanced program on the service delivery of patients who will undergo an elective surgery particularly on determining appropriate nurse staffing to render the nursing care needs of the surgical patients as well as additional Operating Room (OR) theatres must be constructed to decrease the incidence of postponed elective surgeries.

### To the Nursing Staff

The nursing staff must conduct an appropriate and

comprehensive health education with competence:

The following competencies should be enhanced:

The patients must be informed regarding the ward routines like rounds given by nurses and attending physician to make themselves ready for the appointment and address any concerns regarding the elective surgery.

Compliance to pre-operative checklist such as assessment on previously taken medications which may contradict to the elective surgery must be taken into consideration.

Health education regarding the Operating Room (OR) set up, physical preparation such as hygiene and fasting, and relaxation techniques such as deep breathing exercises must be conducted.

Emphasize holistic nursing care to achieve maximum clients' health, comfort and health restoration.

To the Future researchers

The study can be utilized and can be the basis for the future researcher to discover other factors that would affect the level of anxiety in patients with postponed elective surgery and enhance the in-rendering care to decrease anxiety among patients.

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