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INSTITUTE OF HEALTH SCIENCES

ASSESSMENT OF PREOPERATIVE ANXIETY AMONG SURGICAL PATIENTS

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MASTERS IN NURSING (SURGICAL NURSING)

Advisor:

Prof. Dr. Ümran Dal Yılmaz

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APPROVAL

The Directorate of Institute of Graduate Studies, this study has been accepted by the thesis committee in Nursing Program (Surgical Nursing) as a master in nursing thesis.

Thesis Committee:

Chair: Professor Nurhan Bayraktar

Mentor: Professor Ümran Dal Yılmaz

Member: Assoc. Professor Gülten Sucu Dağ

Approval

According to the relevant article of the Near East University postgraduated study education and examination regulation, this thesis has been approved by the above mentioned members of the thesis committee and the decision of the board of Directors of the Institute.

Professor K. Hüsnü Can BAŞER

Director of Institute of Graduate Studies

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Cerrahi Hastalarda Ameliyat Öncesi Anksiyetenin Değerlendirilmesi
Öğrencinin Adı: Sinmiloluwa Eyitayo Maiye
Danışmanı: Prof. Dr. Ümran Dal Yılmaz
Anabilim Dalı: Hemşirelik (Cerrahi Hastalıkları Hemşireliği)

ÖZET

Giriş: Kaygı, ameliyat öncesi, sırası ve sonrasındaki tüm süreçlerin üzerindeki çeşitli olumsuz etkileri nedeniyle özellikle önemlidir. Hastalara uygun şekilde bakım ve destek sağlamak için, hastanın mevcut kaygısını belirlemek gerekir. Ameliyat öncesi bakım sırasında hastanın kaygısı ile başa çıkmak zor olabilir. Tehdit veya risk faktörlerini belirlemek, hemşirenin ameliyat öncesi dönemde uygun bakım ve desteği sağlamasına yardımcı olur ve hastanın kaygısı azaltılabilir.

Amaç: Çalışmanın amacı cerrahi hastalarda ameliyat öncesi kaygıyı belirlemektir.

Yöntemler: Tanımlayıcı kesitsel tipteki bu çalışma Ekim. 2020- Ocak 2021'de Yakın Doğu Üniversitesi Hastanesi ve Girne Dr. Suat Günsel Hastanesi'nde gerçekleştirildi. Çalışmaya 81 hasta gönüllü olarak katıldı. Veriler; hastalara araştırmanın amacı açıklanarak yüz yüze görüşme yöntemi kullanılarak Kişisel bilgi formu, Amsterdam Preoperatif Anksiyete ve Bilgi Ölçeği ile toplandı.

Çalışmada elde edilen verilerin istatistik analizi SPSS programında yapıldı. Verilerin değerlendirilmesinde sayı, yüzde ve ortalamalar gibi tanımlayıcı istatistiklerin yanı sıra student t test, Mann-Whitney U Testi, Kruskal-Wallis testi ve post hoc testi kullanıldı. Sürekli değişkenler arasındaki ilişkiyi değerlendirmek için Pearson korelasyonu kullanıldı.

Bulgular:

APAIS ortalama anksiyete düzeyi 10.6± 6.5, APAIS'ın alt boyutları olan Anestezi ile ilgili anksiyete ortalaması 4.9±2.5, Cerrahi ile ilgili anksiyete ortalaması 5.6±2.4 ve Bilgi edinme isteği ortalaması 6.1±2.4 puan olarak bulundu.

Çalışmanın sonucu ameliyat öncesi cerrahi hastalarda cinsiyet ile hastanın ameliyat öncesi kaygı düzeyi arasında istatistiksel olarak anlamlı bir ilişki olduğunu göstermiştir.

Sonuç: Çalışmanın sonuçlarına göre, hastanın kaygısının değerlendirilmesi ve hastaya uygun ve gerekli bilgilerin verilmesi önerilebilir.

Anahtar kelimeler: Kaygı, Cerrahi, Ameliyat öncesi kaygı, Hemşire

Assessment of Preoperative Anxiety among Surgical Patients
Student's Name: Sinmiloluwa Eyitayo Maiye
Advisor: Prof. Dr. Ümran Dal Yılmaz
Department: Nursing (Surgical Nursing)

ABSTRACT

Introduction: Anxiety is particularly significant because of the negative effects it has on various aspects of perioperative situations**.** In other to properly care and support patients, it is important to detect the patient's current anxiety. Preoperative anxiety can be a challenge during the preoperative care of patients, Identifying threat or risk factors helps the nurse to provide proper care and support during the preoperative period so that stress can be reduced

Objectives: The aim of this study is to assess preoperative anxiety among surgical patients

Methods: This descriptive cross-sectional study was conducted at the Near East University Hospital and Girne Dr. Suat Günsel Hospital in October.2020-January 2021. A total of 81 patients voluntarily participated in this study. Data was collected by Personal Information Form, APAIS (Amsterdam Preoperative Anxiety and Information Scale). The statistical analysis performed by Statistical Package for Social Science (SPSS). Descriptive statistics, Student-t test Mann–Whitney U Test, Kruskal–Wallis test and post hoc test were used to the compare the data Pearson correlation was used to evaluate the correlation between the continuous variables.

Results: The average APAIS anxiety level was found to be 10.6± 6.5, the average scores of APAIS sub dimensions were; 4.9±2.5, for anaesthesia-related anxiety, 5.6±2.4 for anxiety about the surgery and 6.1±2.4 for the information desire.

The result of the study showed that there was statically significance relationship between gender and patients level of preoperative anxiety among preoperative surgical patient.

Conclusions: Based on the results of the study, it may be suggested that assessing patient's anxiety and appropriate and needful information should be given to individual patient.

Key words: Anxiety; Surgery; Preoperative anxiety, Nursing

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Abbreviation

Items of Abbreviation	**context**
APAIS	Amsterdam Preoperative Anxiety and Information Scale
COVID19	Corona virus disease 2019

1. INTRODUCTION AND AIM

1.1 Definition of the Problem

Preoperative anxiety is a common phenomenon during surgical experiences. Anxiety before surgery can lead to different complications either during the surgery or post-surgery. Lack of adequate assessment and care can in turn bring about a poor surgical outcome (Matthias and Samarasekera, 2012).

Anxiety is an unpleasant feeling of dread or a feeling of pressure on human behaviour and actions that can be caused by being placed in a stressful situation such as surgery (Sigdel, 2015). Therefore, preoperative anxiety can be defined as a tensed, unpleasant, uncomfortable, feeling before surgery.

Preoperative anxiety is a challenge in preoperative care of surgical patient since a certain amount of anxiety is expected especially for first time surgical patient. A number of postoperative complications can arise as a result of unattended preoperative anxiety one of them is pain. Pain is a common complaint made postoperatively and preoperative anxiety being a common factor. Other complications include; vomiting, increased risk of infection, tachycardia and hypertension. Different studies have shown that more than half of surgical patient, experience considerable preoperative anxiety (Bailey 2010; Pokharel et al., 2011; Mulugeta et al., 2018).

Patients having different surgical procedure experience fear and anxiety at one time or the other preoperatively. A strong degree of anxiety is rather harmful to the wellbeing of patients. Identifying factors responsible for high anxiety level is therefore important so that appropriate management can be implemented, proper identification can bring about a reduction or prevention in the effect of patients anxiety (Ebirim and Tobin, 2010; Moosa et al., 2009).

Preoperative anxiety can be triggered by lack of knowledge concerning diagnosis, procedure and operating room. Patient also get worried about the success of the surgery, recovery after surgery, cost of operation and the inability to be with family (Fathi et al., 2014) The atmosphere of the operation room often causes patient anxiety; The vibration of computer and device alarms, and numerous uncommon instruments; Equipment and attires will also raise patient distress rates (Gürsoy et al., 2016).

Preoperative anxiety has been reported to affect surgical process as it makes it challenging to insert intravenous catheter during preoperative period because of vasoconstriction caused by anxiety ((Pritchard, 2009). Bleeding can also arise due to preoperative anxiety (Fathi et al., 2014). Preoperative anxiety has an adverse effect on morbidity and a prognosticator to postoperative mortality in patients who had cardiac surgery (Ali et al 2014; Williams et al. 2013) it was indicated in Some studies that patients who have preoperative anxiety are six times likely to be dissatisfied in comparison to those who do not, likewise preoperative anxiety can also bring about prolong hospital stay which in turn increases the health care cost of patient (Gürsoy et al., 2016; Nigussie, et al., 2014)

Due to the complications that preoperative anxiety is likely to cause surgical patients, nurses must play a crucial role in the prevention of preoperative anxiety throughout the perioperative cycle. Nurses should employ interventions to help prevent preoperative anxiety, thereby minimizing the risk for post-operative complications (Lack et al 2003; Kindler et al., 2005).

Preoperative assessment is essential to enable identification of at-risk patients. Since nurses play a primary role in caring for and monitoring of patients throughout the perioperative continuum, a better understanding of nurses' knowledge and practices of preoperative anxiety is an important part of improving patient outcomes. Effective care and management of preoperative anxiety brings about a shorter stay, less expensive health care, need for more analgesic post operatively, less complications and quick recovery (Komolafe and Csernus, 2015).

Determination of preoperative anxiety among surgical patient's regarding preoperative anxiety may be useful in improving their preoperative anxiety, prevention strategies, thus increasing the quality of perioperative care. A study on the topic was not found in North Cyprus. Therefore, the result of this study will help to shed light on the awareness and practices of nurses regarding preoperative anxiety prevention in surgical patients. A Sri Lankan study recorded anxiety prevalence of 75% while a study in Canada recorded a prevalence of 89% and also another in Niger republic with total anxiety of 90% (Perks et al., 2009; Matthias and Samarasekera, 2012; Ebirim et al., 2010).

1.2. Aim of the study

The aim of this study is to assess the anxiety levels of preoperative patients. Study questions include the following**:**

- What are the causes of preoperative patient's anxiety?
- What is the anxiety score of the patients?
- Are there any differences between the descriptive data, and level of patient's anxiety score?

2. GENERAL INFORMATIONS

2.1. Anxiety in surgery

The American Psychiatric Association (2014), defined anxiety as the anticipation of an indefinite and an unexpected risk, the reaction to an uncertain threat. Anxiety is the feeling of agitation, tension, distress and fear. It's a reaction to stimuli which can be outward or inward and can generate cognitive, physiological and emotional responses (Videbeck and Videbeck, 2013; Pritchard, 2009). The role and purpose of anxiety is to identify and perceive danger or any form of potential harm in an environment or situation and produce appropriate response to it (Douilliez and Philippot, 2006).

A study by Strongman (1995) recorded a difference between fear and anxiety he stated that fear is caused by a tangible phenomenon in which what is expected is a known phenomenon and such situation can be avoided but with anxiety such object is something that cannot be palpable and cannot be avoided he explained further that with anxiety the future expectations is unknown and how the reaction towards it is also unknown.

Important life changes can bring about anxiety and one of such changes is surgery. Irrespective of the disease hospitalisation is a stressful event and can provoke anxiety.

Admission into the hospital for surgery in particular can cause great discomfort and high level anxiety for the patients; Preoperative anxiety is a common and known response of patients awaiting surgery and has a great effect on the surgery outcome (Mitchell, 2008; Matthias and Samarasekera, 2012). Studies have shown that waiting on surgery is a great trigger for preoperative anxiety (Grieve, 2002; Gilmarti and Wright, 2008; Haugen et al., 2009).

Preoperative anxiety is a challenge in preoperative care of surgical patient since a certain amount of anxiety is expected especially for first time surgical patient but a high level of anxiety can cause some further complications during and after surgery it may also require more doses of anaesthetic and cause poor recovery (Vileikyte L, 2007; Tanaka et al., 2012).

A Study conducted in a tertiary Nigerian hospital and a pilot study in Niger republic reported 51.0% and 90% of surgical patients had perioperative anxiety

respectively (Akinsulore et al., 2015; Ebirim et al., 2010). A Canadian study also report 89% as an overall prevalence of preoperative anxiety (Perks et al., 2009).

2.2. Physiology and Psychological response to anxiety

Anxiety is associated with increased autonomic activities which changes in intensity over time (Millán et al., 2010). Anxiety is brought about by activities of the sympathetic, parasympathetic and endocrine systems (Sigdel, 2015).

Physiological responses include:

Elevated temperature,

Hypertension,

Increased heart rate,

Heighten sense of touch, smell or hearing

Sweating

Nausea

Peripheral vasoconstriction (Pritchard, 2009; Woldegerima et al., 2017)

Psychological parameter includes:

Hostility

Nervousness

Apprehension

Tension (Bailey, 2010).

Some studies predicted on what might be the cause of preoperative anxiety for surgical patient some of this causes are fears about the surgery, fear for the anaesthetics, fear of the outcome of the surgical procedure, fear of the unknown, concerns about dying, lack of information, concern about safety and sometime depression (Matthey et al, 2004; Jakobsen and Fagermoen, 2005; Mitchell, 2009).

2.3. Factors associated with preoperative anxiety

Diverse factors can contribute to the surgical patient's level of anxiety, these factors can have an accumulated effect on such individuals and surgery can be associated with loss of control, fear of complications fear of the unknown and fear of post-operative pain, fear of anaesthesia (Grieve, 2002). The degree to which the anxiety is being experience depends on different factors such as;

- Vulnerability of the patient to anxiety
- Age
- Gender
- Medical diagnosis
- Educational level
- Type of surgical procedure
- Surgical experience
- Present health problem
- Length of surgery
- Patients waiting time
- Capacity to deal with stressful circumstance (Boker et al 2002).

Age

A study conducted in Pakistan established that age is a contributing factor and that with increase in age anxiety is reduced (Jafar and Khan, 2009), similarly Bakr et al .,2014 explained that younger people are more anxious than older aged patients because they lack experience and are prone to fear and anxiety in contrast with the other studies. Fathi et al., 2014 found out that anxiety increases with age in the study older patients showed greater level of anxiety than younger patients.

Surgical experience

Previous surgical experience has an effect on patient anxiety. Studies showed that anxiety in patients that has had at least one surgical experience has less anxiety than patients who have had no prior experience. This is because patients have prior experience already has a knowledge about every stage of the surgical process; they also have proper information which makes it less likely for them to have misconceptions about the surgery (Jafar and Khan 2009; Bakr et al., 2014, Homzová and Zeleníková, 2015).

Gender

Female experience more anxiety due to surgery than men do a Sri Lankan study explains. Another study established that because women have more closeness and bond with their families and because women express their anxiety easily, during

surgical experience they are affected more by distance from their family (Masood et al., 2009; Matthias and Samarasekera, 2011).

2.4. Effect of preoperative anxiety on surgery

Preoperative anxiety was shown to raise postoperative discomfort and boost the desire for additional pain control medications. The need for this drug may have an effect on overall postoperative recovery (Stirling et al, 2007).

Preoperative anxiety may often contribute to a decrease in immune response and can raise the risk of infection and poor surgical wound healing and many more (Starkweather et al, 2006; Ayla et al., 2016).

2.5. Assessment of preoperative anxiety

In other to care appropriately for the patient, and knowing that each experience is individualised. A number of assessment tool were develop to measure the severity of the preoperative anxiety, to know the causative agent or the trigger for the anxiety. These tools include;

- State-Trait Anxiety Inventory (STAI) questionnaire; The STAI is a self-report test consisting of a 20-item state portion assessing how you feel at the moment and a 20-item feature portion assessing how you usually feel (Spielberger et al 1983),
- The Hospital Anxiety and Depression Scale (Zigmond and Snaith 1983),
- The General Well-Being Questionnaire (Bradley and Gamsu 1994),
- The Short-Form 36 Health Status Questionnaire (Ware and Sherbourne 1992).

This study uses the Amsterdam preoperative anxiety and information scale (APAIS), which is an efficient and easy tool and can be administered in a short period of time.

Moerman (1996) realised that other assessment tool did not address the need for information and also that they were not specific enough to identify patient anxiety or some of them were too lengthy and might take longer time to administer during preoperative care and for that reason the APAIS assessment tool was developed.

This questionnaire targeted at twofold: Identifying certain anxious patients and identify the amount of information each person needs. It was suggested by Boker

et al., 2002 that the APAIS has the capability to be able to test needs for consultation and prophylaxis and that preoperative testing for anxiety is possible.

The APAIS can be appropriately used by nurses in preoperative clinic or after the patient has been admitted into the preoperative ward. The tool makes it possible to divide the patient's response into two part; their need for information and what might have been responsible for the anxiety. The cut-off score used by the preoperative anxiety evaluation tool determines how levels of preoperative anxiety are classified. Preoperative anxiety is divided into two categories: high and low, clinically or not clinically, mild, moderate, severe and extreme preoperative anxiety (Mulugeta et al., 2018; Pokharel et al., 2011).

2.6. Nursing care for preoperative anxiety

Nursing diagnosis for preoperative anxiety can include deficient knowledge, anxiety or ineffective coping.

Nursing interventions

1. Identification of patient's psychosocial status
2. Assessment of patients coping mechanism
3. Encouraging patients expression of feelings
4. Implementation of measure to provide psychological support
5. Evaluation of the availability and effectiveness of support system,

Outcome statement

Patient or designated support individual exhibits awareness of the expected reactions towards surgery or invasive procedure (Bailey, 2010).

It is visible enough to say nurses spend more time with the patient making it possible for nurses to give proper diagnosis and adequate intervention preoperatively (Pritchard, 2010). The ability to properly detect and recognise factors associated with preoperative anxiety is very important in the care and managing of preoperative anxiety which in turn will result in a more successful surgical outcome (Bailey, 2010).

One of the most effective ways concluded in a study of reducing or preventing anxiety is by giving well informed Preoperative education and giving psychological care by this patient are more expressive with their feelings and be able

to voice out what they are anticipating this will in turn encourage trust within the patient (Ayla et al., 2016). Several studies also stated that nurses can help reduce preoperative anxiety by helping patient to better understanding of the surgical experience by giving listening ear and responding to patients concerns, the nursing staff helps by clarifying doubts, giving information heads on each step and experience (Kiyohara et al., 2004; Bailey, 2010; Gonçalves and Braga, 2012).

Nurses use humour preoperatively to reduce anxiety in patients creating a more relaxed and easy atmosphere of learning, good and cordial relationship is formed, it can also reduce any form of tension or anger and agitation in patients. When humour is used by the nurse a positive atmosphere is created which gives room for a positive surgical experience (Davis-Evans, 2013).

Another intervention that can be implemented by the nurse is the use of music therapy, it is said that the use of music preoperatively diverts patient's attention from negative or fearful emotion into something soothing and relaxing which will bring about a physiological change from the anxiety state. A study recorded that women who listened to their favourite music before a caesarean section recorded less anxiety, they felt more relaxed and have a positive emotion then women who did not Kushnir et al, (2012).

Support from family and friends are also ways to reduce anxiety alongside with health care workers. Some pharmacological measures can also be used but a lot of them might have side effects or risk factors (Guo et al, 2012).

3. MATERIALS AND METHODS

3.1. Study Design

The study was designed as a cross sectional descriptive study.

3.2. Study Setting

The study was conducted at the Near East University Hospital and Dr. Suat Gunsel University of Kyrenia Hospital, both in North Cyprus in the surgical wards of the hospitals there is no preoperative anxiety assessment tool used in by the hospitals during preoperative period.

The Near East University hospital is the major and leading Hospital of Cyprus which is located in northern part of Nicosia, the capital of North Cyprus. With 209 private, single patient rooms, 8 operating theatres, 30-bed Intensive Care Unit, 17-bed Neonatal Intensive Care Unit, an advanced laboratory where a wide array of medical and experimental tests can be carried out, 22 other labs Specializing on certain medical tests. A total of 168 nurses and 160 doctors work in the Near East Hospital.

Dr. Suat Gunsel Hospital which is located in Girne, North Cyprus, is a huge complex comprising 15,000 square meter indoor area within two blocks, each comprising four storeys. The hospital comprises three fully equipped operation theatres of which was designed especially to carry out cardiac surgeries; four intensive care units with 17 beds designed and equipped particularly for paediatric, cardiology and general intensive care purposes; one delivery unit, a blood bank, sterilization and dialysis units, an emergency service; biochemistry, microbiology and pathology labs; radiology, physiotherapy and rehabilitation clinics, cardiac centre, 20 policlinics, nutrition and dietetic and check-up centers. A total of 65 nurses and 45 doctors work in Dr Suat Gunsel Hospital**.**

3.3. Sample Selection

The study was performed on 81 in patients who received surgical treatment in the Near East University Hospital and Dr Suat Gunsel Hospital. Convenience sampling method was used based on the fact that participants were willing to take part in the study.

3.3.1. Inclusion Criteria for the study includes male and female hospitalised patient, patient 18 years and older who will undergo surgery in Near East University hospital and Dr Suat Günsel hospital.

3.3.2. Exclusion criteria include patient less than 18 years of age, who did not consent to participate in the study, patient who difficulty in communicating, unconscious and with mental illness.

3.4. Study Tools

Questionnaire on the assessment of preoperative anxiety among surgical patients and The Amsterdam Preoperative Anxiety and Information Scale (APAIS-Appendix 1) a six item questionnaire was used. The questionnaire consists of two sections which contain the demographic characteristics of surgical patients; the second segment was about patients concerns and information about surgery and anaesthesia. Amsterdam Preoperative Anxiety and Information Scale were fashioned in 1996 by Dutch experts (Moerman et al., 1996) it is Concise and easy to understand and to apply for many healthcare settings, the analysis of results is simple. The APAIS is considered an effective, reliable and hands-on tool for the assessment of preoperative anxiety and information needs (Boker et al., 2002).

It contains 6 statements in order of objective to the questionnaire, each statement is given a numerical value based on the Likert scale of 5 based on severity; These values ranging from 1-5; 1 = none, 2 = mild, 3 = moderate, 4 = severe, 5 = extreme. The points given to questions, 1 and 2 (anaesthesia anxiety) surgical anxiety, 4 and 5 (surgical anxiety) and the total anxiety score are calculated by adding both. The statements expressing the desire to obtain information about anaesthesia and surgery are questions 3 and 6. The lowest score is 6, the highest score is 30. It was translated into Turkish and used for the first time in the country by Aykent et al. (2007). In this study, APAIS Cronbach's alpha 0.86, anesthesia-related anxiety 0.88, sub-dimensions of anesthesia 0.88, and surgical request for information 0.68 determined. We did not examine validity in this study.

3.5. Data collection

Data was collected using questionnaires between October 2020 and January2021 in the general surgical departments of Near East hospital and Dr Suat Gunsel Hospital. The questionnaires was administered by researcher on patients while they in are their rooms after admission for surgery and self-completion method was used. Completion of the questionnaire takes almost 10 minutes. Since most of the patients in both hospitals speak Turkish and English, the Translated English version of the questionnaire was also used.

3.6. Ethical Aspect

Ethical approval was obtained from the Near East University Research and Ethics Committee (23/04/2020/1033) (Appendix 2). Permission was gotten from the hospital management before the study was carried out at the hospitals (Appendix 3). In addition, the researcher explained the purpose of the research and obtained patients consent verbally.

3.7. Data Analysis

Statistical Package for Social Science (SPSS) software version 20.0 (IBM Armonk, New York) was used to perform the statistical analysis. Besides conducting the descriptive statistics (frequency, minimum, maximum, median, mean and standard deviation), Student-t test was used to compare data of two groups that have normal distribution. For data that do hove normal distribution, Mann–Whitney U Test was used to compare the data of two groups while Kruskal–Wallis test was used to the compare the data of three or more groups. Pearson correlation was used to evaluate the correlation between the continuous variables. For all the tests, $p<0.05$ was considered significant.

4. RESULTS

Table 4. 1 Descriptive characteristics of patients (N=81)

Age (years)	**n**	**%**
18-29	31	38.3
30-39	21	25.9
40-49	8	9.9
50-59	8	9.9
60 and above	13	16.0
Min–max (median)	18 – 83 (34)	
Mean ± SD	38.58 ± 16.795	
Gender	***n***	**%**
Male	39	48.1
Female	42	51.9
Education	***n***	**%**
Not educated	6	7.4
Primary school	5	6.2
High school	18	22.2
University	52	64.2
Marital status	***N***	**%**
Single	41	50.6
Married	40	49.4
Social security	***n***	**%**
Yes	56	69.1
No	25	30.9
Socio economic status	***n***	**%**
Bad	1	1.2
Good	69	85.2
Very good	11	13.6

SD standard deviation, n number

In this descriptive cross sectional study conducted with the aim of assessing preoperative anxiety among surgical patients, among the participants 51.9% were female while 48.1% were male and their ages ranged from 18-83 years with the mean of 38.58 years. The Percentage of the participant who was single was 50.6% and 49.4% for the married Participant. The majority of the patients had a university education (64.2%) and a larger percentage had good social economic status (Table 4.1).

Table 4.2 Features of anaesthesia and surgery (N=81)

Type of procedure	*n*	%
Pulmonological	5	6.2
Orthopaedic	21	25.9
General	24	29.6
Gynaecological	13	16.0
Plastic	7	8.6
Gastrointestinal	6	7.4
Urological	5	6.2
Previous experience with Surgery		
None	52	64.2
Yes	29	35.8
You have being trained on anaesthesia and surgical intervention before surgery		
No	16	19.8
Yes	65	80.2
You are satisfied with nursing care given to you		
No	6	7.4
Yes	75	92.6
Who gave information		
Doctor	77	95.1
Both Doctor and Nurse	4	4.9
Concerns about anaesthesia and surgery		
Post-operative pain	38	46.9
Medication	7	8.6
Whether the surgery will be a success	10	12.3
Can I fully recover	5	6.2
Nausea and vomiting	7	8.6
Not being able to wake up after surgery	8	9.9
Others	6	7.4

*****others; (staying in intensive care, sleeping for a long time after surgery or not being able to wake up, Anaesthetists and staff's attitudes, Anaesthetists and surgeons lack of information and experience**)**

The participants who were having general surgery were 29.6% (n = 24), followed by orthopaedic surgery 25.9% (n=21). Participant were mostly anxious

about post-operative pain while the 80.2% (n=65) participants had training concerning surgery and anaesthesia.

92.6% of participants were satisfied with the nursing care given before surgery. According to the data collected, no nurse singlehandedly provided nursing care to the patients before the operation. All patients were either being trained t by a doctor or by both a doctor and nurse (Table 4.2).

Table 4.3 The Amsterdam Preoperative Anxiety and Information Scale with patients score distributions

APAIS	**Note at all**						**Extreme**			
	None		**Mild**		**Moderate**		**Severe**		**Extreme violence**	
	N	%	*n*	%	*n*	%	*n*	%	*N*	%
I am worried about the anaesthetic.	29	35.8	11	13.6	19	23.5	16	19.8	6	7.4
The anaesthetic is on my mind continually.	24	29.6	21	25.9	14	17.3	17	21.0	5	6.2
I would like to know as much as possible about the anaesthetic.	19	23.5	9	11.1	21	25.9	20	24.7	12	14.8
I am worried about the procedure.	19	23.5	13	16.0	18	22.2	22	27.2	9	11.1
The procedure is on my mind continually.	18	22.2	13	16.0	25	30.9	18	22.2	7	8.6
I would like to know as much as possible about the procedure.	13	16.0	9	11.1	23	28.4	25	30.9	11	13.6

In the distribution the Total APAIS score of our patients ranged between 4 and 20, and the scores for desire for information ranged between 2 and 10.

Table 4.4 (APAIS) Amsterdam Preoperative Anxiety and Information Scale showing anxiety levels

APAIS	Mean ± SD
Anaesthesia-related anxiety	4.9 ± 2.5
Surgery-related anxiety	5.6 ± 2.4
Information desire component	6.1 ± 2.4
TOTAL	10.6 ± 6.5

The average APAIS anxiety level was found to be 10.6± 6.5, the average scores of APAIS sub dimensions were; 4.9±2.5, for anaesthesia-related anxiety, 5.6±2.4 for anxiety about the surgery and 6.1±2.4 for the information desire (Table 4.4)

Table 4.5 Level of anxiety

Anxiety level	Frequency	Percentage
Low level	39	48
High level	42	52

High anxiety = score on anxiety scale (sum of scores of items 1, 2, 4, 5) >10; low anxiety = score on anxiety scale ≤10 (Table 4.5).

Table 4.6 Comparison of demographic data and APAIS subscales

	n	**APAIS subscales**			
		Anesthesia-related anxiety Min–max (median) Mean ± SD	**Surgery-related anxiety** Min–max (median) Mean ± SD	**Information desire component** Min–max (median) Mean ± SD	**Total anxiety** Min–max (median) Mean ± SD
Age					
R	81	-0.109	-0.039	-0.300	-0.080
P		0.335	0.726	**0.007****	0.476
Gender					
Male	39	2-8 (4) 4.1282 ± 2.1	2-10 (5) 4.9744 ± 2.4	2-10 (6) 5.3846 ± 2.4	4-16 (9) 9.1026 ± 4.1
Female	42	2-10 (6) 5.7619 ± 2.6	2-10 (7) 5.5597 ± 2.3	2-10 (7) 6.7857 ± 2.2	4-20 (13.5) 12.0476 ± 4.6
p^a		**0.003****	**0.015***	**0.008****	**0.003****
Education					
Not educated	6	2-9 (2) 4.1667 ± 3.4	2-8 (6) 5.5000 ± 2.6	2-8 (4.5) 4.6667 ± 2.7	4-16 (8.5) 9.6667 ± 5.3
Primary school	5	2-10 (3) 5.2000 ± 3.6	2-10 (4) 5.6000 ± 3.3	3-8 (6) 5.4000 ± 2.3	4-20 (7) 10.8000 ± 6.8
High school	18	2-10 (4) 3.5770 ± 2.5	2-10 (6) 5.7222 ± 2.6	2-10 (6) 5.3333 ± 2.1	4-20 (9.5) 10.5556 ± 4.7
University	52	2-10 (5) 5.0962 ± 2.4	2-10 (6) 5.6538 ± 2.4	2-10 (7) 5.9558 ± 2.4	4-17 (11) 10.7500 ± 4.4
p^b		0.783	1.000	0.061	0.969
Marital status					
Single	41	2-10 (5) 5.0000 ± 2.5	2-10 (6) 5.4878 ± 2.5	2-10 (6) 6.0976 ± 2.4	4-20 (11) 11.9802 ± 4.7

Married	40	2-10 (4.5) 4.9500 ± 2.5	2-10 (6) 5.8250 ± 2.4	2-10 (6.5) 6.1250 ± 2.4	4-20 (10.5) 12.2189 ± 4.5
p^a		0.929	0.538	0.959	0.781
Social security					
Yes	56	2-10 (5) 5.2857 ± 2.5	2-10 (6) 5.9286 ± 2.3	2-10 (6) 6.0714 ± 2.3	4-20 (11) 11. 2143 ± 4.5
No	25	2-8 (3) 4.2800 ± 2.6	2-10 (5) 5.0400 ± 2.4	2-10 (6) 6.2000 ± 2.6	4-17 (10) 9.3200 ± 4.7
p^a		0.097	0.132	0.825	0.089
Socio economic status					
Bad	1	-	-	-	-
Good	69	2-10 (4) 4.8291 ± 2.5	2-10 (6) 5.4348 ± 2.4	2-10 (6) 5.4661 ± 2.4	4-20 (10) 10.2609 ± 4.6
Very good	11	2-10 (6) 5.8182 ± 2.6	2-10 (6) 6.8182 ± 2.5	2-10 (7) 6.5455 ± 2.5	4-20 (12) 12.6364 ± 4.6
p^c		0.245	0.112	0.521	0.120

There is statically significance between patients Genders showing a higher anxiety among the female respondent than the male in all the component of the APAIS subscale (Anaesthesia-related anxiety, Surgery-related anxiety and the information desire component).Also, based on Pearson correlation test, No statistically significant correlation was detected between the anxiety sub-scores in terms of age ($p>0.05$). Between the age and desire for information sub-scores, a negative correlation statistically significant by 30% was detected ($r: -0.300$; $p=0.007$). Between the age and total scores there was a statistically significant correlation as the ages increase their desire for information decreases. There was no significance between patient's

level of education, marital status and social economic status and patient's anxiety scale (Table 4.5).

Table 4.7 Comparison of anaesthesia and surgical features and APAIS subscales

		APAIS subscales			
	n	**Anesthesia-related anxiety** Min–max (median) Mean ± SD	**Surgery-related anxiety** Min–max (median) Mean ± SD	**Information desire component** Min–max (median) Mean ± SD	**Total anxiety level** Min–max (median) Mean ± SD
Type of procedure					
Pulmonological	5	2-4 (4) 2.6000 ± 0.9	2-10 (3) 4.2000 ± 3.3	2-6 (3) 3.8000 ± 2.0	4-14 (5) 6.8000 ± 4.2
Orthopaedic	21	2-8 (4) 4.5238 ± 2.4	2-10 (6) 5.5238 ± 2.7	2-10 (6) 6.0476 ± 2.5	4-16 (10) 10.0476 ± 4.7
General	24	2-10 (6) 5.7917 ±2.6	2-8 (6) 5.7083 ± 2.0	2-10 (7) 6.4583 ± 2.2	4-16 (13) 11.5000 ± 4.2
Gynaecological	13	2-10 (6) 5.6923 ± 2.6	2-10 (7) 6.6923 ± 2.5	3-9 (7) 6.6154 ± 2.0	4-20 (13) 12.3846 ± 4.8
Plastic	7	2-10 (4) 4.4286 ± 2.9	2-10 (6) 5.7143 ± 2.8	2-10 (6) 5.8571 ± 3.0	4-20 (10) 10.1429 ± 5.2
Gastrointestinal	6	2-8 (4.5) 4.8333 ± 2.0	2-9 (6) 5.5000 ± 2.3	5-10 (7) 7.3333 ± 2.0	4-17 (10.5) 10.3333 ± 4.3
Urological	5	2-8 (4) 4.4000 ± 2.2	2-8 (4) 4.8000 ± 2.6	2-8 (3) 4.6000 ± 2.7	4-16 (8) 9.2000 ± 4.5

p^a		0.155	0.601	0.210	0.333
Previous experience with Surgery					
None	52	2-10 (4) 4.7115 ± 2.3	2-10 (6) 5.5962 ± 2.5	2-10 (6) 6.1731 ± 2.5	4-20 (10.5) 10.3077 ± 4.4
Yes	29	2-10 (6) 5.4483 ± 2.8	2-10 (6) 5.7586 ± 2.5	2-10 (6) 6.0000 ± 2.3	4-20 (13) 11.2069 ± 5.0
p^b		0.248	0.739	0.800	0.341
you have been trained on anaesthesia and surgical intervention before surgery					
No	16	2-8 (5.5) 5.0625 ± 2.5	2-8 (7) 5.4375 ± 2.6	4-10 (8) 7.3750 ± 2.0	4-16 (11) 10.5000 ± 4.7
Yes	65	2-10 (4) 4.9538 ± 2.5	2-10 (6) 5.7077 ± 2.4	2-10 (6) 5.8000 ± 2.4	4-20 (10) 10.6615 ± 4.6
p^b		0.856	0.853	**0.027***	0.943
You are satisfied with nursing care given to you					
No	6	2-9 (4) 4.8333 ± 3.0	2-8 (5.5) 5.0000 ± 2.5	4-8 (6) 4.4385 ± 1.3	4-16 (9.5) 9.8333 ± 5.4
Yes	75	2-10 (5) 4.9867 ± 2.5	2-10 (6) 5.7067 ± 2.4	2-10 (6) 6.1333 ± 2.5	4-20 (11) 10.6933 ± 4.6
p^b		0.898	0.512	0.560	0.690
Who gave information					

Doctor	77	2-10 (4) 4.8182 ± 2.5	2-10 (6) 5.5195 ± 2.4	2-10 (6) 6.0519 ± 2.4	4-20 (10) 10.3377 ± 4.5
Both Doctor and Nurse	4	7-10 (7.5) 8.0000 ± 1.41	6-10 (8.5) 8.2500 ± 1.7	6-8 (7.5) 7.2500 ± 0.96	13-20 (16) 16.2500 ± 2.9
p^b		**0.023***	**0.030***	0.332	**0.016***
concerns about anaesthesia and surgery					
Post-operative pain	38	2-10 (4.5) 4.9737 ± 2.6	2-10 (6) 5.6316 ± 2.4	2-10 (6) 6.1842 ± 2.3	4-20 (11) 10.6053 ± 4.7
Medication	7	2-8 (5) 4.5714 ± 2.6	2-8 (5) 5.0000 ± 2.5	2-8 (6) 5.7143 ± 2.2	4-16 (10) 9.5714 ± 5.0
Whether the surgery will be a success	10	2-8 (4) 4.3000 ± 2.1	2-9 (5) 5.2000 ± 2.1	2-8 (6) 5.5000 ± 2.2	4-16 (9.5) 9.5000 ± 4.1
Can I fully recover	5	2-6 (4) 3.6000 ± 1.7	2-8 (4) 4.4000 ± 2.6	2-9 (4) 4.8000 ± 2.6	4-14 (8) 8.0000 ± 3.7
Nausea and vomiting	7	2-8 (6) 5.7143 ± 2.4	2-10 (8) 7.2857 ± 2.7	2-9 (8) 6.8571 ± 2.5	4-17 (15) 13.0000 ± 4.9
Not being able to wake up after surgery	8	2-10 (7) 6.7500 ± 2.8	6-10 (7) 7.1250 ± 1.4	7-10 (8) 8.5000 ± 1.3	8-20 (14.5) 13.8750 ± 3.6
Others	6	2-8 (4) 4.5000 ± 2.5	2-10 (3.5) 4.500 ± 3.1	2-10 (3.5) 4.1667 ± 2.4	4-20 (11) 10.6933 ± 4.6
p^a		0.371	0.145	**0.019***	0.161

*others; (staying in intensive care, sleeping for a long time after surgery or not being able to wake up, Anaesthetists and staff's attitudes, Anaesthetists and surgeons lack of information and experience)

Those patients who have indicated that they have been trained and educated on anaesthesia and surgical intervention before surgery show statistically significant ($p < 0.05$) higher desire for information than those who have not been trained and educated on anaesthesia and surgical intervention before surgery. The patients that were given surgical training by a doctor showed statistically lower ($p < 0.05$) anxiety compared to the patients trained by both a doctor and a nurse. There was no statistically significant (($p > 0.05$) information desire between patients trained by a doctor compared to those trained by both a doctor and a nurse. (Table 4.6).

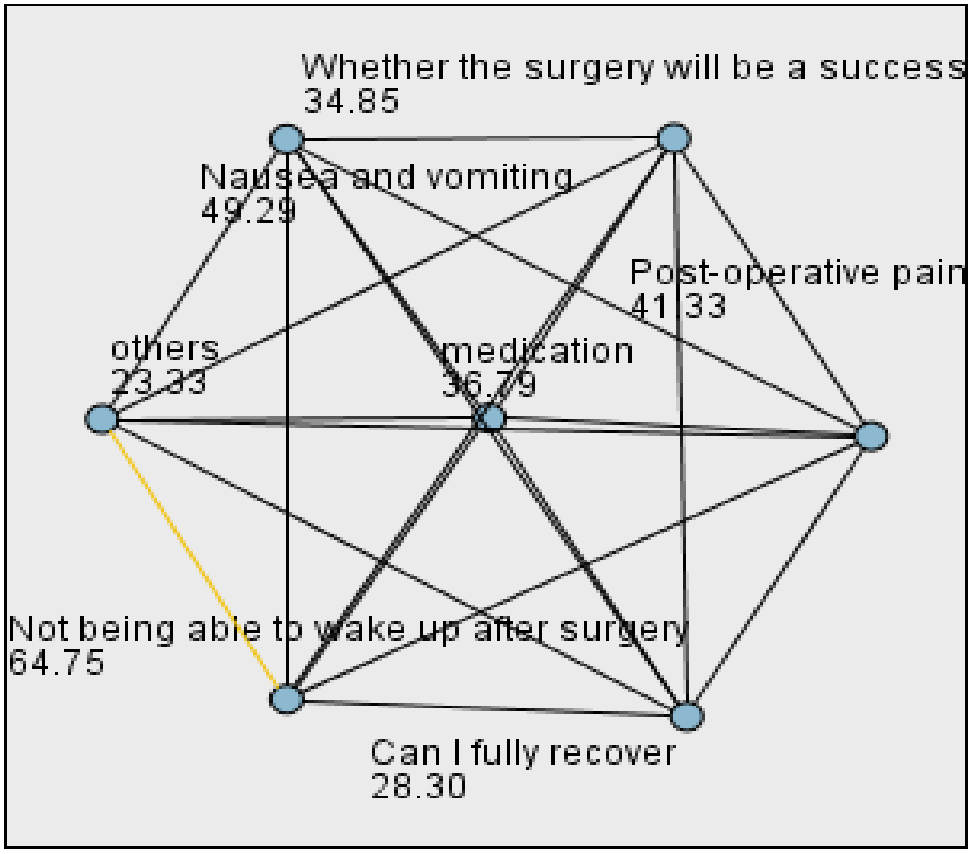

Figure 4.1. Post hoc pairwise comparisons for Kruskal Wallis test of concerns about anaesthesia and surgery

There was a statistically significant difference between patients' concerns about anaesthesia and surgery and their desire for information. According to the post

hoc comparison for Kruskal Wallis test, patients with concern that they may not be able to wake up after surgery (8.5000 ± 1.3) have statistically significant ($p < 0.05$) higher desire for information compared to patients with all other concerns (post-operative pain, medication, whether the surgery will be a success, Can I fully recover, Nausea and vomiting and others). There was no evidence of a statistically significant difference between the other pairs (Table 4.6, Figure 1).

5. DISCUSSION

The focus of the study is to assess the preoperative anxiety among surgical patients using APAIS scale in order to evaluate the causes of patient's anxiety. APAIS is an effective scale for calculating anxiety score, it is also great to identify anxiety and desire for information at the same time, when comprehensive answers are planned; they are easily carried out and easy to understand. The study was conducted with 81 surgical patients with vary gender, ages, level of education, social economic status and marital status.

In this study, the mean anxiety score of participant was 10.6, the study by Moerman set a suitable predictive value of 11 to identify patients with anxiety, patients with >11 should be considered high anxiety cases. When the APAIS score was 11 or higher, our analysis revealed that 51.8 percent of the preoperative patients had high anxiety this result is similar to a study which reported a prevelence of 50% of anxiety among patients awaiting coronary artery bypass graft surgery(CABG) (Koivula et al., 2001) also a study by Adesanmi et al reported a high anxiety level in their preoperative patients although a different anxiety scale was used (Adesanmi et al., 2015) .A study done in Sri lankan showed participant anxiety score to be 11or more showed a high prevalence of anxiety. A Nepalese study reported more anxious about anaesthesia but wanted more information about surgery, average score for the present study showed that the average participant has positive attitude towards being informed (Moerman et al., 1996; Matthias and Samarasekera, 2012; Pokharel et al., 2011).

There was a statistically significant negative correlation between the patients age and information desire. This suggests that as age increases the desire for information decreases. In other words, older patients appear to show less desire for information. It must be noted however that correlation analysis does not show causal effect but only provides an indication that there is a relationship between two variables. There is however no statically significance between anxiety score and age, similarly Nigussie reported that age does not have an effect on patient's anxiety level statistically, Eberhart found an inconsistent result between age and anxiety they concluded that age is not a factor or a predictor of preoperative anxiety (Nigussie et al., 2014; Eberhart et al.,2020). Contrary to those studies, some other studies have a reported that age is a predictor of preoperative anxiety (Basak et al., 2015; Maheshwari et al., 2015).

Result regarding anxiety in the genders reveals that females had greater anxiety scores than the males. Similar findings were recorded in previous studies (Gallagher et al., 2009; Ramesh et al., 2017). The present study identifies a significant association between gender and patients anxiety, this finding is confirmed by many studies recognising gender as a preoperative anxiety factor, Gender is in fact, the variable that by far had the greatest effect on preoperative anxiety, with a comparable effect on anaesthesia, desire for information and anxiety related to surgery (Caumo et al., 2001; Karanci et al., 2003; Goncalves et al., 2016). some authors believe it because traditionally males find it difficult to express weaknesses and some state that it is because women can be more sensitive towards stressful situation. It was suggested that fluctuation in hormone in women can also be a cause of the increase (Mavridou et al., 2013; Matthias and Samarasekera, 2012; Ebirim et

al 2010). However a study indicates that there is no connection between sex and preoperative anxiety (Kiyohara et al., 2004).

In respect with education a higher percentage of participant have had tertiary education. There was no statistically significance between the level of patient's education and patient's anxiety in the present study this result is similar to previous studies indicating education as a non-predictor for patient's anxiety (Eberhart et al., 2020; Maheshwar et al., 2015) to the other socio- demographic variables (marital status, social economic status) there was no significant connection or association between them and patient's anxiety is result is similar to with (Berth et al 2007 and Matthias and Samarasekera, 2012).

In the present study, the highest procedure undergone was general surgery followed by orthopaedic procedures however, there was no significance effect of any of the surgical procedures in the study with preoperative anxiety of the patient this finding was also indicated by Eberhart et al., 2020 Some other studies recorded a moderate effect of surgical disciple on the anxiety of patient (Laufenberg-Feldmann and Kappis, 2013; Aust et al., 2018).

Those patients who have indicated that they have been trained and educated on anaesthesia and surgical intervention before surgery show statistically significant ($p < 0.05$) higher desire for information than those who have not been trained and educated on anaesthesia and surgical intervention before surgery. This can probably be possible due to misunderstanding of information or probably too much information (Jlala et al., 2010). Providing accurate and sufficient information about the cause of anxiety that has been identified will help to minimize preoperative

anxiety, such education should be patient-centred and suited to the needs of the patients (Mulugeta et al., 2018).

In this study there was no significance between the level of preoperative anxiety and patient's previous experience with surgery, this result is also seen in a couple of studies (Nigussie et al., 2014; Jafar et al., 2009) while some studies states otherwise, it was reported by some authors in their studies that there is a significance between previous surgical experience some stated a decrease in anxiety due to experience and increase in anxiety in patients whose had no experience and history with surgery, the authors in their studies indicated that previous has a significant effect on the patients preoperative anxiety level experience (Badner et al., 1990; Matthias and Samarasekera, 2012, Homzová et al., 2015).

There were different concerns in respect to anaesthesia and surgery. Factors that causes preoperative anxiety in patients undergoing surgery, the factors mention in this study include; anaesthetist's and surgeon's lack of information and experience, not being able to wake up after surgery, post-operative pain, waking up during surgery, nausea and vomiting, attitude of anaesthetist's and staff, staying in intensive care, sleeping for long time after surgery or not being able to wake up,medication, whether the surgery will be a success, can I fully recover.The most common factor among these was postoperative pain followed by whether the surgery will be a success. Adesanmi et al in there study showed that the common concern for their patients to fear of complication while post-operative pain was the sixth concern it is first for this study. The second most concern is also the same in the Adesanmi study. There was a statistically significant difference between patients' concerns about anaesthesia and surgery and their desire for information. Patients with concern

that they may not be able to wake up after surgery have statistically significant higher desire for information compared to patients with all other concerns. We failed to find any significant between anxiety and the other concerns.

Limitation

The regulations in place during the COVID 19 pandemic limited the number of departments, in hospitals, where questionnaires could be administered.
Also, the period of wait before surgery was not considered.

6. CONCLUSION

APAIS scales showed that the patients experienced high anxiety level at the pre-operative period.

In the current the level of anxiety is significantly connected with age, gender, having trained on anaesthesia and surgical intervention before surgery. Additionally, concerns about not being able to wake up after surgery is a factor established in the study to affect patient's preoperative anxiety.

Assessment of preoperative anxiety should be merged into a regular pre-operative nursing care, adequate and suitable information should be given to surgical patients preoperatively. In conclusion it is important for health practitioners to be aware of patient's anxiety and to find a suitable and appropriate care to their anxieties

7. FINDINGS AND RECOMMENDATIONS

7.1. Findings

The key focus of this finding was performed with the aim of assessing the preoperative anxiety among surgical patients was listed as following:

- In respect to gender distribution, 48.1% were male while (51.9%). The ages ranged from (18-83 years) with mean age of (38.58 ±16.80). A (50.6%) of participant were single while (49.4%), majority of the participants had good social economic status (85.2%) and have social security number (69.1%) (Table 4.1).
- Among different types of surgery that the participant was going to have majority had general surgery was 29.6% followed by orthopaedic surgery (25.9%). A larger percentage of participants had no experience with surgery (64.2%), also majority of the patients had been trained on anaesthesia and surgery (80.27%). (92.6%) were satisfied with the nursing care given before surgery (Table 4.2).
- About the concerns about anaesthesia and surgery 49.9% were anxious about postoperative pain (12.35%) about whether the surgery will be a success (9.9%) about not being able to wake up after surgery,(8.6%) were concern for medication and also nausea and vomiting (6.2%) were worried if they will fully recover ,other concerns were categorised as others which was (7.4%) (Table 4.2).
- The distribution The Amsterdam Preoperative Anxiety and Information Scale (APAIS)" of the cases is given. Anxiety scores of our patients ranged

between 4 and 20, and the scores for the desire for information ranged between 2 and 10 (Table 4.3).

- The average APAIS anxiety level was found to be 10.6± 6.5, The average scores of APAIS sub dimensions were; 4.9±2.5, for anaesthesia-related anxiety, 5.6±2.4 for anxiety about the surgery and 6.1±2.4 for the information desire (Table 4.4).
- Percentages of patients with low and high anxiety was 48% and 52% respectively with ≤10 being the cut-off for high anxiety score (Table 4.5).

- No statistically significant correlation was detected between the anxiety sub-scores in terms of age ($p > 0.05$). Between the age and desire for information sub-scores, a negative correlation statistically significant was detected (r: − 0.300; $p = 0.007$). There was statistical significance between the gender and anxiety sub scores (p=0.003) and with desire for information also (p=0.008) (Table 4.6).
- There was a statistical significance with the need for information and patient who have been trained on anaesthesia and surgical intervention before surgery (p=0.027) and more anxiety among those who were taught by both doctor and nurses while there was no significant difference between patient's anxiety and the type of procedure, previous experience with surgery and satisfaction with nursing care (Table 4.7)
- Patients with concern that they may not be able to wake up after surgery (8.5000 ± 1.3) have statistically significant ($p < 0.05$) higher desire for information compared to patients with all other concerns (post-operative pain,

medication, whether the surgery will be a success, Can I fully recover, Nausea and vomiting and others) (Table 4.5, figure 4.1)

7.2. Recommendations

Based on the results of this study the following recommendations were made;

1. It is suggested that more study should be carried out with larger simple size in other to be able to generalise the data to the whole society.
2. It is suggested that more health institution should be included so as to be able to generalise the data.
3. It is suggested that a collaborative anxiety assessment tool be used so as to be able to efficiently assess anxieties of patient going through surgical experience.
4. It is suggested that nurses should give intentional attention should be given to patient's anxieties and their need for information.
5. Preoperative anxiety assessment should be integrated into a standard preoperative nursing care.

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9. APPENDIX

Appendix 1.

Questionnaire on the Assessment of Preoperative Anxiety Among Surgical Patients

Gender	□ Male		□ Female	
Age				
Educational level	□ Not educate	□ Primary	□ High school	□ Tertiary
Profession				
Marital status	□ Married		□ Single	
Social security	□ Yes		□ No	
Socio economic	□ Very good	□ Good	□ Bad	□ Other
Type of procedure				
Preexisting Condition	□ Hypertension	□ Diabetes	□	□
	□	□	□	□
Medications	□	□	□	□
	□	□	□	□
People who live with patient:				
Patient's relative who responsible from care:				
Previous experience with surgery			□ No □ Yes	
If yes kindly state the type of surgery and when:				
What are your concerns about anesthesia and surgery.	□ Anesthetist's and surgens's lack of information and experience	□ Not being able to wake up after surgery	□ Post-operative pain	□ Waking up during surgery
	□ Nausea and vomiting	□ Anesthetist's and staff's attitudes	□ Staying in intensive care	□ Sleeping for a long time after surgery or not being able to wake up
	□ Medication	□ Whether the surgery will be a success	□ Can I fully recover	□ Others
	□	□	□	□
Have you been trained on anesthesia and surgical intervention before surgery?			□ Yes	□ No
If you say yes, who / who gave		□ Nurse	□ Doctor	□ Nurse and Doctor together
Are you satisfied with the nursing care given to				

you before the operation?		
Want to add?		

Cerrahi Hastalarda Preoperatif Anksiyetenin Değerlendirilmesi Soru Formu

Cinsiyet	□ Erkek		□ Kadın	
Yaş				
Eğitim düzeyi	□ İlkokul	□ Ortaokul	□ Lise	□ Üniversite
Mesleği				
Medeni durumu	□ Evli		□ Bekar	
Sosyal Güvence	□ Var		□ Yok	
Sosyo ekonomik durumu	□ Çok iyi	□ İyi	□ Kötü	□ Diğer
Uygulanan Cerrahi İşlem				
Daha önce var olan hastalıkları	□ Hypertension	□ Diabetes	□	□
	□	□	□	□
İlaçlar	□	□	□	□
	□	□	□	□
Kimlerle yaşıyorsunuz:				
Bakımınızdan kim sorumlu:				
Daha önce cerrahi deneyiminiz var mı?			□ Hayır	□ Evet
Cevabınız evet ise ne/ne zaman?:				
Anestezi ve cerrahi ile ilgili endişeleriniz nelerdir?	□ Anestezistin ve cerrahın bilgi ve deneyim yetersizligi	□ Ameliyat sonrası uyanamamak	□ Ameliyat sonrası ağrı	□ Ameliyat sırasında uyanmak
	□ Bulantı-kusma	□ Anestezistin ve sağlık personelinin tavırları	□ Yoğun bakımda kalmak	□ Ameliyat sonrası uzun süre uyumak/ uyanamamak
	□ İlaç tedavisi/uygulamaları	□ Ameliyatın başarılı olup olmayacağı	□ Tam olarak iyileşebilecek miyim?	□ Diğerleri
	□	□	□	□
Ameliyattan önce anestezi ve uygulanacak cerrahi			□ Evet verildi	□ Hayır

girişime ilişkin size eğitim verildi mi?			verilmedi
Cevabınız evet ise kim/kimler verdi	□ Hemşire	□ Doktor	□ Hemşireve Doktor birlikte
Ameliyat öncesi size verilen hemşirelik bakımından memnun kaldınız mı?		□ Evet	□ Hayır
Eklemek istedikleriniz			

The Amsterdam Preoperative Anxiety and Information Scale (APAIS)	**Not at all**			**Extremely**	
1. I am worried about the anesthetic	**1** none	**2** mild	**3** moderate	**4** severe	**5** extreme violence
2. The anesthetic is on my mind continually					
3. I would like to know as much as possible about the anesthetic					
4. I am worried about the procedure					
5. The procedure is on my mind continually					
6. I would like to know as much as possible about the procedure					

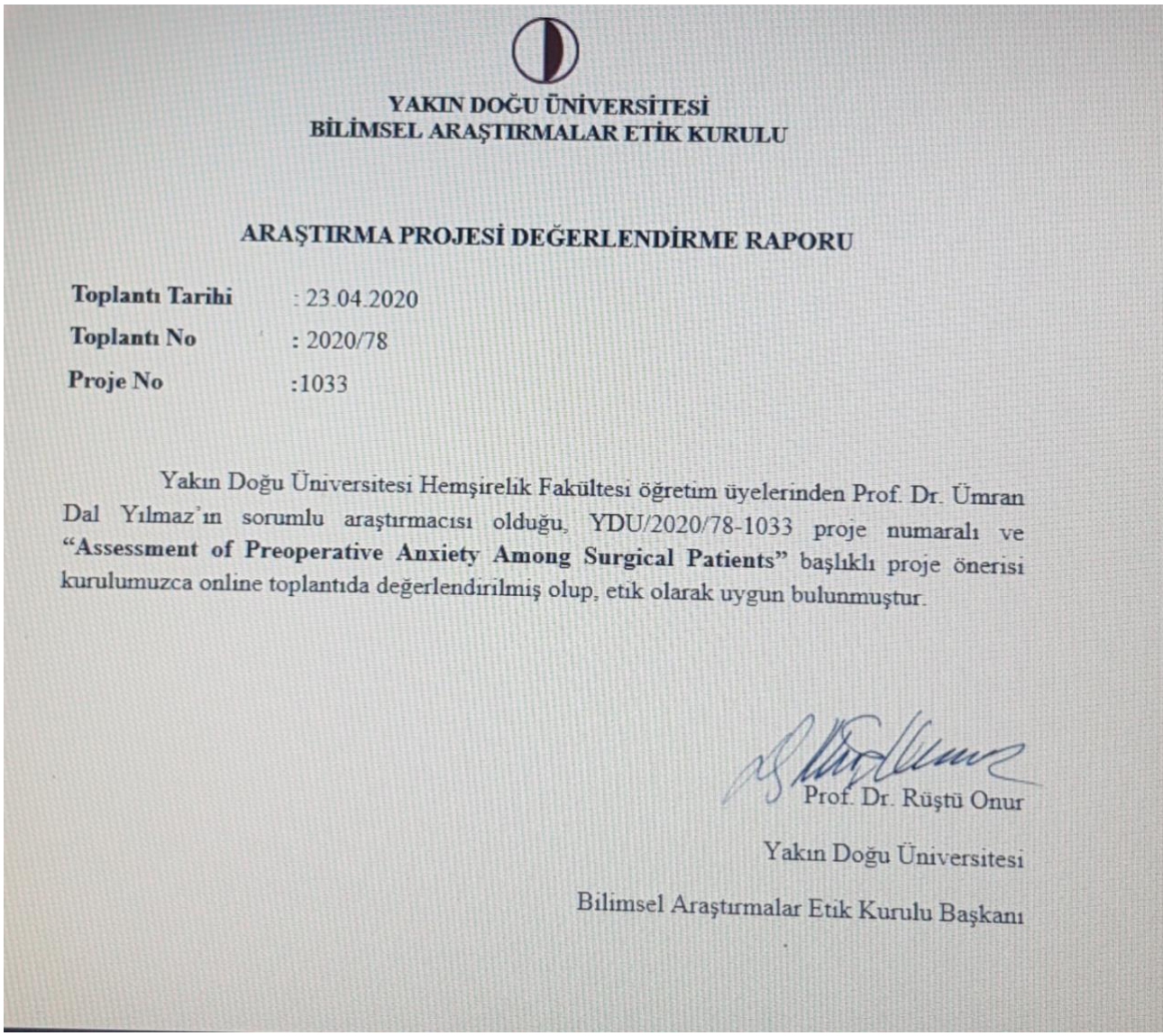
The subscales
Anesthesia-related anxiety Sum A = 1 + 2
Surgery-related anxiety Sum S = 4 + 5
Information desire component = 3 + 6
Combined anxiety component Sum C = sum A + sum S (1 + 2 + 4 + 5)

Amsterdam Preoperatif Anksiyete ve Bilgi Ölçeği (APAIS)	**Çok önemli değil**			**Aşırı**	
1. Anestezi nedeniyle endişeliyim	**1** hiç	**2** hafif	**3** orta	**4** şiddetli	**5** aşırı şiddetli
2. Sürekli anesteziyi düşünüyorum					
3. Anestezi konusunda olabildiğince fazla bilgi edinmek istiyorum					
4. Cerrahi islem nedeniyle endişeliyim					
5. Sürekli uygulanacak cerrahi islemi düsünüyorum					
6. Cerrahi islem konusunda olabildigince fazla bilgi edinmek istiyorum					

Alt ölçekler
Anesteziye bağlı anksiyete Toplam A = 1 + 2

Cerrahiye Bağlı Kaygı Toplamı C = 4 + 5
Bilgi arzusu bileşeni = 3 + 6
Kombine anksiyete bileşeni Toplam K = toplam A + toplam S (1 + 2 + 4 + 5)

Appendix 2



YAKIN DOĞU ÜNİVERSİTESİ
BİLİMSEL ARAŞTIRMALAR ETİK KURULU

ARAŞTIRMA PROJESİ DEĞERLENDİRME RAPORU

Toplantı Tarihi : 23.04.2020
Toplantı No : 2020/78
Proje No :1033

Yakın Doğu Üniversitesi Hemşirelik Fakültesi öğretim üyelerinden Prof. Dr. Ümran Dal Yılmaz'ın sorumlu araştırmacısı olduğu, YDU/2020/78-1033 proje numaralı ve **"Assessment of Preoperative Anxiety Among Surgical Patients"** başlıklı proje önerisi kurulumuzca online toplantıda değerlendirilmiş olup, etik olarak uygun bulunmuştur.

Prof. Dr. Rüştü Onur
Yakın Doğu Üniversitesi
Bilimsel Araştırmalar Etik Kurulu Başkanı

Appendix 3

DR. SUAT GÜNSEL
GİRNE ÜNİVERSİTESİ HASTANESİ
UNIVERSITY OF KYRENIA HOSPITAL

28/04/2020

GÜH-36/2020

Konu: YDÜ Sağlık Bilimleri Enstitütüsü Hemşirelik Yükseklisans Programı Tez çalışması hk.

YDÜ Hemşirelik Fakültesi Dekanlığı' na;

Dr. Suat Günsel Girne Üniversitesi Hastanesi'nde uygulamak istediğiniz "Assessment of Preoperative Anxiety Among Surgical Patients/ Cerrahi Hastalarda Preoperatif Anksiyetenin Değerlendirilmesi" ve "Hand hygiene knowledge, beliefs and practices among nurses" konulu tez çalışmalarına ait anket uygulamalarının pandemi nedeniyle uyulanan kısıtlamaların sona ermesinden sonra yapılması uygun görülmüştür.

Gereğini saygılarımla rica ederim.

Prof. Dr. Nail Bulakbaşı
Dr. Suat Günsel Girne Üniversitesi Hastanesi
Başhekim

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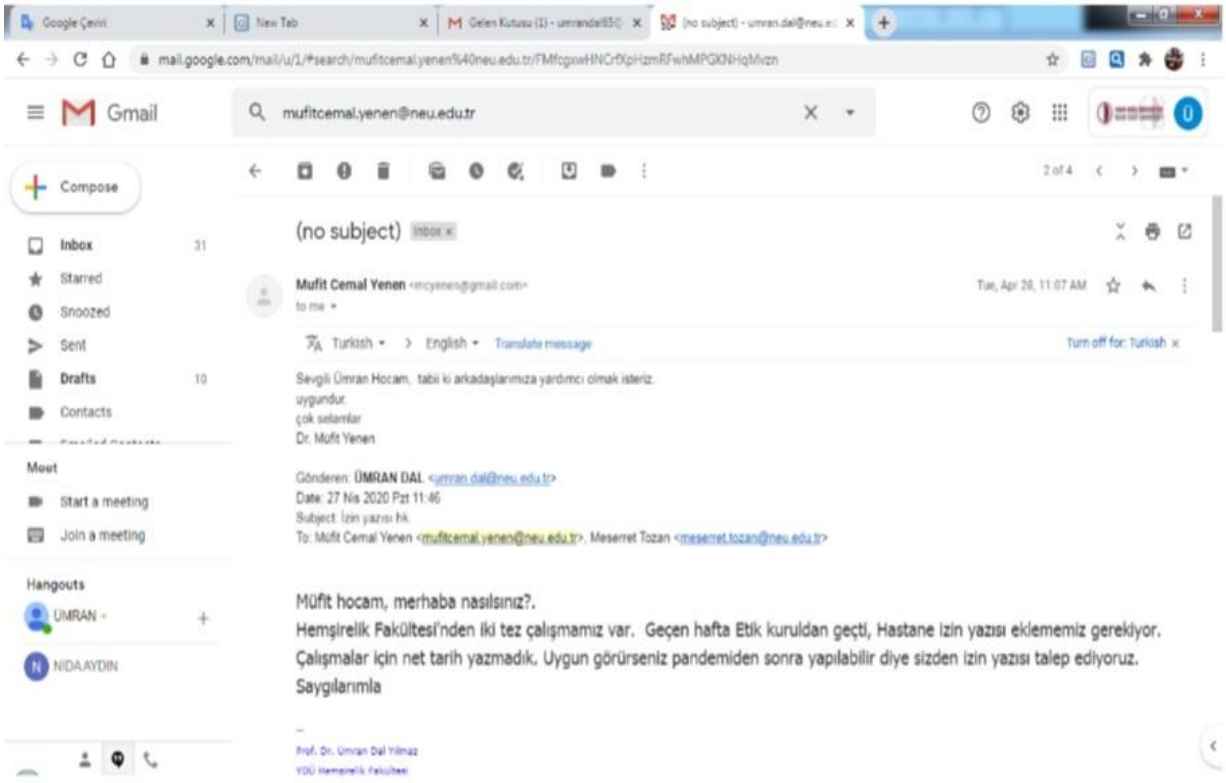
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