FACTORS RELATED TO PRE-OPERATIVE ANXIETY AMONG OLDER ADULTS UNDERGOING GENERAL SURGERY IN JINZHOU, CHINA

YAQIAN ZHANG

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR MASTER DEGREE OF NURSING SCIENCE
(INTERNATIONAL PROGRAM)
IN ADULT NURSING PATHWAY
FACULTY OF NURSING
BURAPHA UNIVERSITY
2024

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วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรพยาบาลศาสตรมหาบัณฑิต (หลักสูตรนานาชาติ)

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The Thesis of Yaqian Zhang has been approved by the examining committee to be partial fulfillment of the requirements for the Master Degree of Nursing Science (International Program) in Adult Nursing Pathway of Burapha University

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62910082: MAJOR: ADULT NURSING PATHWAY; M.N.S. (ADULT NURSING PATHWAY)
KEYWORDS: PRE-OPERATIVE ANXIETY, FACTORS, OLDER ADULTS, GENERAL SURGERY

YAQIAN ZHANG : FACTORS RELATED TO PRE-OPERATIVE ANXIETY AMONG OLDER ADULTS UNDERGOING GENERAL SURGERY IN JINZHOU, CHINA. ADVISORY COMMITTEE: PORNCHAI JULLAMATE, CHANANDCHIDADUSSADEE TOONSIRI 2024.

As a special group of general surgical patients, elderly patients have relatively weak mental ability, and the problem of pre-operative anxiety is more prominent. This correlational study aimed to identify factors related to pre-operative anxiety among older adult undergoing general surgery in Jinzhou, China. A simple random sampling method was used to recruit the sample of 82 older adults undergoing general surgery in the Third Affiliated Hospital of Jinzhou Medical University in Jinzhou, Liaoning Province, China. Research instruments included questionnaires to gather data for demographic information, state anxiety scale (S-AI), and social support rating scale (SSRS). Descriptive statistics and point biserial correlation coefficients, Pearson's product moment correlation coefficients were used to analyze the data.

The results revealed that most of the sample had some pre-operative anxiety 87.80 % (score 41-60). For correlation analysis, pre-operative anxiety was significant negatively correlated with age and social support (r = -0.268, p < .05; r = -0.508, p < .01), and positively correlated with married marital status (r =0.398, p < .01).

The findings suggest that nurses and other health care providers could apply these study results to develop activities/ programs to prevent pre-operative anxiety in older adults undergoing general surgery by focusing on encouraging social support.

ACKNOWLEDGEMENTS

Thanks to my principal advisor, Prof. pornchai jullamate, and co-advisor, Prof. Chanandchidadussadee, for their patient guidance in research ideas, data analysis and interpretation.

I would like to thank all the staff of the Department of General Surgery at the Third Affiliated Hospital of Jinzhou Medical University, where my research was conducted. They were all very friendly and helpful, and my thesis would not have been possible without them. I would like to thank all the participants who volunteered to participate in this study.

I am also very grateful to the faculty of Nursing at Burapha University for giving me the opportunity to study the Master of Nursing Science Program. In my study and research, I have learned a lot.

Finally, I would like to express my deepest gratitude to my dearest parents, other family members and classmates who have helped me, for their support and companionship.

Yaqian Zhang

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CHAPTER 1
INTRODUCTION

Background and Significance of the Study

General surgery for patients is a kind of stress events, is the most common psychological anxiety, especially in the pre-operative waiting time. A large number of literature studies on pre-operative anxiety confirm that anxiety can affect the completion of surgery and patient satisfaction, and can also cause mental and physical discomfort, such as elevated blood pressure, vasovagal syncope and other autonomic nerve excitation symptoms, cognitive function limitation, increased surgical complications and changes in the immune system (Shuaiwang.2017).

General surgery is one of the commonly used methods in clinical surgical treatment. Previous studies have shown that most patients will have severe anxiety reaction before operation. When the psychological changes caused by anxiety response cannot be adjusted to normal, it may lead to psychological disorders and affect postoperative recovery . the pre-operative mental health of patients who are about to undergo surgery has attracted the attention of most medical scientists and psychologists. It has been reported that about 60% of the patients have pre-operative anxiety (Yaltirik Mfocus et al.2019).

Anxiety refers to people's nervous, negative emotions about some imminent danger or harm (Zhang et al., 2019). pre-operative anxiety is one of the most common and typical anxiety reactions in patients during the operation period (Kumar, Das, Chauhan, Kiran, & Satapathy, 2019). The severe anxiety before operation not only affects the mental state of patients, but also causes changes in blood pressure and heart rate, affects the smooth progress of operation and anesthesia, increases the risk of operation and the probability of complications, and affects the quality of life (Tao, Li, Wang, & Gou, 2018). With the change of medical model, it is important to pay attention to the changes of patients' mental state while treating diseases, which plays an important role in improving the effect of treatment (Shao, et al. 2019). Early detection of pre-operative anxiety, targeted treatment or psychological guidance to improve the pre-operative negative mood of patients during the perioperative period is of great significance to improve the degree of surgical fit and surgical safety, and can

promote the recovery of physical and mental (Liao & Li, 2019) after operation.there are many factors affecting pre-operative anxiety, including patients' personality and physique, patients' family and nursing and so on (Liubiao et al., 2006).

Previous studies have shown that most patients have severe anxiety response before operation, which may lead to psychological disorders when the psychological changes caused by anxiety response cannot be adjusted to normal (Liu, Gao, & Yang, 2018).

Pre-operative anxiety is one of the most common anxiety reactions in patients before operation (Kumar et al., 2019).

Existing studies have shown that among the 996 patients who are about to undergo surgery, 650 patients have pre-operative anxiety, and the incidence of anxiety is 65.26%. Among them, there were 389 cases of mild anxiety (39.06%), 140 cases of moderate anxiety (14.06%) and 121 cases of severe anxiety (12.15%) (Liang, et al.2019). In the existing research on 140 patients with breast cancer surgery, there are 113 cases of patients with anxiety symptom, accounted for 80.71%, there are 89 cases of patients with depressive symptoms, accounted for 63.57%, there is anxiety, depression, at the same time have symptoms in 80 cases, accounting for 57.14% (Liwang et al., 2020).pre-operative is a high-risk period for the elderly, and anxiety is a common serious problem in this setting. According to (Srifuengfung et al., 2023).the study of perioperative anxiety and depression in the elderly, it is shown that clinically significant anxiety reaches 5%-45% and depression reaches 6%-52%.

Age refers to the time of one's life after birth. The patients in the study were adults over the age of 18. The results showed that there was a correlation between age and pre-operative anxiety (OR=3.955, 5.217, 6.896 $p < 0.05$). With the increase of age, patients are prone to anxiety in surgery(Liang, et al.2019).

Education level refers to the degree of a person's learning knowledge. In some studies, there is a correlation between patients' education level and pre-operative anxiety (OR = 0.457, 0.483, $p < 0.05$. The higher the education level, the lower the possibility of pre-operative anxiety (Liang, et al.2019). The lower the level of education of patients, the lack of awareness of the disease, the lack of correct understanding of disease and treatment, their own ability of psychological adjustment is relatively poor, more prone to bad emotions (An, Cao, Liu, Zhang, & Zhao, 2018).

Marital status refers to married and unmarried marital status. unmarried patients in some studies were correlated with pre-operative anxiety (OR=2.369 $p < 0.05$) (Wang, et al.2020). However, some studies showed that there was no correlation between marital status and pre-operative anxiety ($p < 0.05$) (Liang, et al.2019). Therefore, it is controversial whether there is a correlation between the patient's marital status and pre-operative anxiety.

Social support refers to the financial, emotional and spiritual support provided to the elderly by significant persons including their spouses, children, neighbors, colleagues. Social support will be measured by Chinese version of Social Support Rating Scale (Xiao, 1994).

Income ＜ 50,000 RMB / year, the lower the income level is, the heavier the financial burden is. The cost of operation is a great burden to the patients, which will bring great psychological pressure to the patients (Dong, et al.2019).

Research objectives

1. To study the level of pre-operative anxiety in patients in Jinzhou, China
2. To study the relationship between age, educational level, marital status, income, social support, and anxiety of patients before general surgery.

Research hypotheses

1..Pre-operative anxiety was positively correlated with age.
2. Pre-operative anxiety was negatively correlated with education level.
3. Marital status was negatively correlated with pre-operative anxiety.
4. Social support was negatively correlated with pre-operative anxiety.
5. Income was negatively correlated with pre-operative anxiety scope of the study

The purpose of this study was to describe patients' pre-operative anxiety to determine the relationship between selected variables including age, education level, marital status, income and social support. Data on the age, education level, cmarital status, income and social support of patients before surgery will be collected in the Department of general surgery the third affiliated Hospital of Jinzhou Medical University, China.

The sample size will be calculated by G*power, and the collection time will start in May until the sample size is met.

Conceptual framework

Spielberger anxiety theory, also known as state-trait anxiety theory, was proposed by psychologist Spielberger in 1969 and is mainly used to explain and measure different types of anxiety.This study requires the use of (State anxiety scale, S - AI), described in State anxiety is often a temporary unpleasant emotional experience, such as stress, fear, anxiety and nervousness, accompanied by the autonomic nervous system function. The scale can be used to evaluate the anxiety of medical, surgical, psychiatric and psychiatric patients, and can be used to evaluate the effect of psychotherapy and drug treatment. The scale by correction factors, such as (age,education level, marital status, income, social support), can be used to determine whether the old general preo-perative anxiety (Spielberger, 1983).

The researchers hypothesized that if health care providers were aware of the presence of general pre-operative anxiety inelderly patients, they would engage in intervention behaviors to ameliorate general pre-operative anxiety in elderly adults.

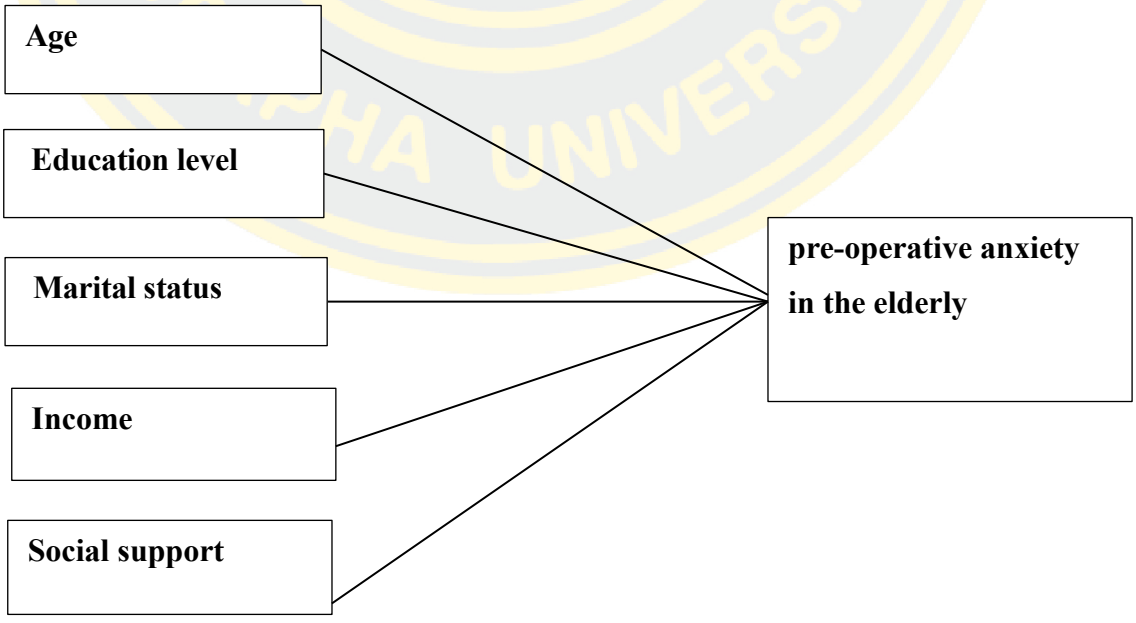

Figure 1 Research framework

Operational definitions

The elderly The World Health Organization defines people over the age of 60 as the elderly. China's Law on the Protection of the Rights and interests of the elderly stipulates that citizens of the people's Republic of China who have reached the age of 60 belong to the elderly. Therefore, the subjects included in this study were elderly patients age 60 old years and olders.

Educational level is an indicator of the population's access to education. It marks the level of cultural education of a country or a nation. It can be divided into illiterate, elementary school, junior high school, high school, junior college, undergraduate and above (national standard GB4658-84).

Income means the average monthly income of every family (RMB)

Marital status means the social status of patient. reflect each person's marital status in a certain area, including unmarried, married, widowed and divorced (zhongGuan.1997).

Social support refers to the financial, emotional and spiritual support provided to the elderly by significant persons including their spouses, children, neighbors, colleagues. social support will be measured by Chinese version of Social Support Rating Scale (Xiao, 1994).

Pre-operative patient an inpatient who will undergo a general surgical procedure.

CHAPTER 2
LITERATURE REVIEWS

This chapter summarizes the definition of elderly, general surgery, the concept of anxiety, Spielbur's theory of anxiety, and the related influencing factors of pre-operative anxiety in elderly patients undergoing general surgery.

Overview about general surgery in elderly

Definition

The elderly, in accordance with international regulations, 60 years old and above to determine the elderly, the law on the protection of rights and interests of the elderly in article 2 of the age of the elderly standard is 60 years old. All citizens of the People's Republic of China who have reached the age of 60 are classified as senior citizens.

General surgery is an important part of the medical field, which not only involves the treatment of a wide range of diseases, but also continues to progress and develop, which has a significant impact on the safety and effectiveness of surgical procedures. It mainly performs abdominal surgery such as liver, gallbladder, pancreas, and gastrointestinal, but also includes anorectal, vascular, thyroid, and breast diseases. It is the largest specialty in the surgical system.

Type

General surgery is divided into four categories, primary surgery including appendix resection, inguinal hernia, etc.secondary surgery includes cholecystectomy, subtotal gastrectomy, perforation repair and so on. Tertiary surgery includes radical resection of gastrointestinal tumors, liver resection and so on. Level 4 difficult tumors including pancreatic duodenal excision, laparoscopic surgery, etc.

Incidence

With the aging process in China, the number of surgeries for the elderly is increasing. It is reported that about 60% of the patients had pre-operative anxiety.(Yu & Cha, 2019).

Another study showed that among 1526 elderly patients admitted to the Department of General Surgery, 1157 cases underwent surgery, of which 443 cases

(35.2%) were abdominal malignant tumors; Hernia repair, appendectomy surgery in 369 cases.(Biaoliu et al., 2006)

Impact of surgery

Psychological impact on the operation of the fear and anxiety can result in pre-operative psychological preparation shortage, old people prone to anxiety, depression and other psychological problems. when anxiety cannot be adjusted to normal, it may lead to psychological disorders and affect recovery after surgery (Williams, Baer et al. 2019).So should pay attention to and study the influence factors of patients with pre-operative anxiety values.(YunxiaoCheng, 2023).so should pay attention to and study the influence factors of patients with pre-operative anxiety values.

Overview about pre-operative anxiety among elderly

Definition

Anxiety refers to the unpleasant complex emotional state such as tension, anxiety, worry and annoyance caused by the coming danger or threat (Liu, et al.2018). It is the emotional reflection (Chou.2018) caused by the serious deterioration of the value characteristics of real or future things.

Cause

There are many factors affecting pre-operative anxiety, including patients' personality and physique, patients' family and nursing care, etc., but the specific factors are not clear at present.(Maatta et al., 2019)

Consequences

Anxiety often causes symptoms such as tachycardia, rapid breathing, sweating, trembling, weakness, tiredness, sleep difficulties and intestinal problems.pre-operative elderly difficulty sleeping, and sleep disorders can lead to the decline in the quality of sleep, the sleep time reduced, decreased memory and attention.irritable bowel syndrome, is caused by anxiety disorder in elderly patients with preo-perative has great effect on the digestive system, more patients with unexplained frequent diarrhea, defecation quantity every time very few, and have the feeling of defecate is not clean. (Lin, et al.2015).

Pre-operative anxiety not only affect the patient's mental state, still can cause the change of blood pressure and heart rate, affect the smooth progress of surgery and anesthesia, increase the risk of surgery in the elderly and the incidence of complications, affect the quality of life (Tao et al., 2018).

Theory of anxiety

According to Spielberger anxiety theory, the State-trait anxiety questionnaire (STA)), compiled by Charles D. Spielberger et al., is a self-rating scale. this study need to use the State anxiety inventory (State anxiety scale, S - AI).including questions 1-20. State anxiety describes an often temporary unpleasant emotional experience, such as tension, fear, anxiety, and neuroticism, accompanied by hyperfunction of the autonomic nervous system. The scale can be used to evaluate the anxiety of internal medicine, surgery, mental illness and mental patients, and to evaluate the effect of psychotherapy and drug therapy. The scale can be used to judge whether there is anxiety in the elderly before operation (Spielberger, 1983).state anxiety is a brief experience caused by a person's cognitive assessment of a potential threat or danger(Spielberger, 1966).in other words, state anxiety is a dimension of anxiety, which may be a response to medical experience (Barlow, et al.202).there is growing evidence that it is necessary to use this form to measure the level of anxiety of participants, as it may have a serious impact on the outcome .

This study was based on the Spielberg theory of anxiety, using the State anxiety scale (S-AI) to measure the pre-operative anxiety of the elderly, and to explore the correlation between the independent variables of age, education level, marital status, income and social support and the pre-operative anxiety of the elderly.

Assessment of anxiety

To judge whether there is anxiety in the elderly before operation, it is necessary to pass the scale or questionnaire. In China, it is mostly based on Spielberger anxiety theory, State Anxiety Inventory (S-AI). the scale is self-evaluation, concise in content, easy to operate, and easy to be accepted and mastered by the subjects. the scoring method was 1-20 questions, with a full scale of 1-4 (state anxiety: 1-none, 2-some, 3-medium, 4-very obvious. The subjects chose the most appropriate level according to their own experience. The cumulative scores of state anxiety were calculated respectively, with a minimum of 20 points and a maximum of

80 points (note: all positive emotional items are scored in reverse order). The higher the score on the scale, the higher the anxiety level of the subjects. Topics 1, 2, 5, 8, 10, 11, 15, 16, 19, 20 are scored in reverse order (Spielberger, Gorsuch, & Lushene,).The state anxiety scale has a good internal reliability (Cronbach alpha 0.82), which has been used in many medical (Dijker, et al.2004) and general medical practice (C. D. Spielberger, Gorsuch, & Lushene, 1970).

Role of nurses

Pre-operative anxiety is common in the elderly patients, and can negatively impact the result of the surgery, therefore, assess the anxiety and the psychological intervention is the key to improve patient satisfaction and the operation safety. , the early detection of pre-operative anxiety, targeted therapy and psychological counseling to improve perioperative patients with negative emotions, to improve the compliance and safety operation, it is of great significance, and can promote the postoperative rehabilitation (Liao & Li, 2019). understanding the various aspects of anxiety is essential for the pre-operative assessment and preparation of healthcare workers and helps them to provide more comprehensive care and support to patients who may have psychological disorders.

Factors related to pre-operative anxiety among elderly

There are many factors affecting pre-operative anxiety in the elderly. by reading literature and searching Easc from domestic literature, the variables that this study will focus on are the relationship between education level, age, marital status, social support, income and anxiety of the elderly.

Age

The issue of the elderly in China is getting more and more attention. According to data from the National Bureau of Statistics as of the end of 2017, there are 241 million people aged 60 and over in my country. With the development of science and technology, in medicine, the level of surgical operation and clinical nursing technology have also been significantly improved. At the same time, on the basis of rapid economic development, the demand for surgery by the elderly is increasing due to the relative organ function of elderly patients. Lower, the tolerance

of surgery is poor, will increase the risk of surgical treatment, prone to postoperative complications.

Education level

Educational level is an indicator of the population's access to education. It marks the level of cultural education of a country or a nation. It can be divided into illiterate, elementary school, junior high school, high school, junior college, undergraduate and above (national standard GB4658-84). Studies have shown that The higher the level of education, the higher the understanding of disease-related knowledge and the lower the degree of anxiety (YiDan et al. 2021).

Marital status

Marital status refers to the status of marriage and residence of the population of a country or a region aged 15 and over in a certain period of time. Marital status is generally divided into unmarried, married, divorced, and widowed (GuanZhong.1997).

Studies have shown that marital status and the incidence of pre-operative anxiety are not statistically significant (Liang, 2021).

In the study of (Rice, 2008), the pre-operative focus rate of married patients was lower.

Therefore, whether marital status affects patients' anxiety before surgery is still controversial.

Income

Income means the average monthly income of family members (RMB).

The lower the income level, the heavier the financial burden of patients, and the cost of surgery is a heavy burden for them, which will bring heavy psychological pressure to the patients (LeiYi et al. 2016).

Studies have shown that the higher the income, the lower the anxiety before surgery (Wang et al. 2020).

Social support

Social support is derived from the spiritual and material help and support given to individuals by all aspects of society, which reflects the close degree and quality of the relationship between individuals and society, including objective support, subjective support and support utilization (YingLang.2014). Social support

helps to reduce loneliness and isolation among the elderly by promoting effective responses (Moonesar et al., 2016).

Studies have shown that good social support can give elderly patients undergoing surgery encourage confidence, adjust their mental state, and improve their anxiety. Therefore, the level of pre-operative social support for elderly surgical patients should be improved, care and life support should be given to patients, and they should be actively guided to use effective social resources to help them overcome various negative emotions and maintain full confidence in postoperative recovery (HuaGao et al.2016)

Summary

In conclusion, through the literature review, many patients have anxiety before surgery, which, if not managed properly, can lead to psychological disorders and affect postoperative recovery. This study highlights the general anxiety before surgery in the elderly the potential effect of surgical outcome. the pre-operative anxiety of the elderly is correlated with age, education level, marital status, income and social support. therefore, it is necessary to pay attention to the general pre-operative anxiety factors of Chinese elderly patients. only by finding the influencing factors of pre-operative anxiety of patients can we formulate more scientific and effective intervention measures for patients to improve their anxiety, so as to improve the quality of life after surgery. there is a lack of relevant research in Jinzhou, China. therefore, this study will focus on the influencing factors of pre-operative anxiety of the elderly in Jinzhou, so as to provide a basis for formulating more scientific and effective intervention measures.

CHAPTER 3
RESEARCH METHODOLOGY

This chapter presents the research design, population and sample, research setting, research instruments, human subject protection, data collection procedures, and data analysis procedures.

Research design

The purpose of this study was to understand the general pre-operative anxiety of the elderly in Jinzhou, China.discussion, the elderly general pre-operative anxiety, and age, education level, marital status, income, and the correlation of social support.

Data will be collected in August 2021 at the Third Affiliated Hospital of Jinzhou Medical University.

Population:

The subjects of this study are the elderly who went to the third affiliated Hospital of JinZhou Medical University to undergo general surgery.

Scope of the research

1. The correlational design will be used to investigate general pre-operative anxiety and its relationship with age, education level, marital status, income and social support among the elderly patients in JinZhou, China.

Sample

Inclusion criteria of the sample:

1. 60years old and olders.

2.Be able to understand, read, write, and speak Chinese.

3. No reading disorder.

Sample size

Sample size was calculated following the G-power program. I chose the calculation method of correlation study and determined the parameters as follows: Tail=two, effect size=0.3(kun. et al., 2020), α err prob=0.05, Power (1-β err prob) = 0.8, the results showed that the total sample size was 82. Therefore, at least 82 samples were included in this study.

Sample recruitment

The main results are as follows:

1. A continuous sampling method was used to select elderly patients undergoing general surgery in the pre-paratory hospital.

2. Before general surgery, the investigator explained the purpose and procedure of the investigation to the patient, and informed consent was obtained.

3.The target population did their own questionnaires

4. After the questionnaire was filled out, the researcher collected it on the spot and checked the quality of all the questionnaires.

Research instrument

The research tools of this study are three scales, demographic questionnaire, State anxiety scale (S-AI) and Social support scale.

1. **The demographic data questionnaire [DDQ]**

The data was be collected through the questionnaire, including the population questionnaire, the details of which are as follows.

The demographic data scale is determined by the researchers, including gender, age, education, marital status, working status, income, disease, type of surgery and so on. Provide more information to help the outcome of the discussion (level of anxiety)

2. Spielberger [S-AI]

The study required the use of the State anxiety scale (S-AI). The scale was translated into Chinese in 1988. It has a wide range of applicability and good validity, and is suitable for use in China.the scale is self-evaluation, concise in content, easy to operate, and easy to be accepted and mastered by the subjects. The scoring method was 1-20 questions, with a full scale of 1-4 (state anxiety: 1-none, 2-some, 3-medium, 4-very obvious. The participants chose the most appropriate level according to their own experience. The cumulative scores of state anxiety were calculated respectively, with a minimum of 20 points and a maximum of 80 points (note: all positive emotional items are scored in reverse order). The higher the score on the scale, the higher the anxiety level of the participants. Itens 1, 2, 5, 8, 10, 11, 15, 16, 19, 20 are scored in reverse order (Spielberger, 2019).The state anxiety scale has a good internal

reliability (Cronbach alpha 0.82), which has been used in many medical (Dijker, et al.2004) and general medical practice (Spielberger et al., 1970).

3. Social Support Rating Scale (SSRS)

In this study, the researcher used Chinese version of Social Support Rating Scale. The scale was designed and compiled by Shuiyuan Xiao.(Xiao, 1994).and other mental health workers on the basis of foreign scales and according to the actual situation in China, which helps people to have a comprehensive evaluation of their social support. The scale is widely used and recognized in China, with 10 items and 3 dimensions, with a total score of 12-65 points, ≤ 22 as a low level, 23-44 as a 28 moderate level, and > 45 as a higher level. The higher the score, the higher the degree of social support. The coefficient of Cronbach's α in this scale is 0.817(Yuanchen et al., 2018).

Validity and reliability of the instruments

Validity: All instruments have found the Chinese version, and have been widely used in the study of the elderly anxiety in China.Therefore, validity testing was not conducted.

Reliability: Before the data collection procedure, instrument reliability was tested in 30 general pre-operative elderly patients with the same characteristics as the sample in this study， Spielberger [S] - AI scale and SSRS scale scale Cronbach 'S alpha value is as follows:

Table 1 The Cronbach’s alpha of the instruments

Variables	the Cronbach's α (tryout)	the Cronbach's α (main study)
Spielberger [S-AI]	.810	.834
SSRS	.680	.828

Ethical consideration

This research proposal was approved by the Institutional Review Board of Burapha University (Protocol code s G-HS064/2564) and the Ethics Committee of the

Third Affiliated Hospital of Jinzhou Medical University (Protocol code KX2021-028). In the process of data collection, all participants were informed in detail of the purpose of this study and participated in the process, and the researchers promised that the data collected would only be used to analyze the data without revealing personal information related to patients.

Patients voluntarily participate in the study and have the right to refuse or withdraw from the study.

Participants are required to sign an informed consent form before collecting data.

All the data is stored in a safe place, and participants can contact the researchers if they want to know the results of this study.

Data collection procedures

The data collection process of this study is as follows:

1. It is planned to collect data after obtaining the ethical approval of Burapha University and the permission of Jinzhou district administrative office.

2. Strictly follow the selection criteria, and select qualified general surgery seniors before abdominal surgery to conduct face-to-face interviews.

3. The researcher wasintroduce the participants and explain the purpose of the research, ethical issues, human rights protection issues, and withdrawal from the research. Then use 3 scales to screen the elderly who are willing to participate in the survey for 3-5 minutes. Those who meet the selection criteria was required to sign a consent form to participate.

4. The interview time is about 20 minutes. Researchers wasuse Mandarin to interpret and manage the questionnaire. After the questionnaire is collected, the invalid questionnaire was deleted, and the researcher wascheck and number the questionnaire.

5. Repeat this process until the sample size is met.

Data analysis

1. The data was analyzed by using SPSS 21 statistical software. In this study, the test level $\alpha = 0.05$ was set, and descriptive statistics and correlation statistics was used to analyze the data.

2. The general data and other research variables of the elderly was described by frequency, percentage, mean (M), standard deviation (SD).

3. The relationship between the patient's age、 education level、marital status incomel、social support and pre-operative anxiety in the elderly was measured by Pearson moment correlation.

4. Marital status need to apply Point biserial statistics if one of the two variables is a pro-portional or equidistant measurement variable and its whole is normal, and the other is a "dichotomy" naming variable (such as married and unmarried, etc.), the linear correlation between these two variables is called point-two-column correlation. The method to calculate the point-two-column correlation in SPSS21 is to calculate the Pearson correlation coefficient of these two-column variables. It is just important to note that the range of values of the binary variables in the column must be (0, 1).

Pearson correlation coefficient was used to determine the correlation between age and pre-operative anxiety of the elderly, marital status and pre-operative anxiety of the elderly, education level and pre-operative anxiety of the elderly, income and pre-operative anxiety of the elderly, social support and pre-operative anxiety of the elderly. The level of correlation reference:

$r < .30$ means low correlation.$r = .30$ -.70 means moderate correlation.$r > .70$ means high correlation.(Jiaxiuzhao et al., 2021)

CHAPTER 4
RESULTS

The results of the study are presented in this chapter. The findings were divided into three parts. The first section describes the characteristics of the participants. The second section describes the independent and dependent variables. The last part is the factors that affect the general surgery pre-operative anxiety of the elderly.

Part 1 Demographic characteristics of sample

The frequencies, percentages, means, and standard deviations of demographic characteristics of general surgery pre-operative anxiety in the elderly are shown in Table 2. More than half of the participants were men (60.7%), and the overall age was 61–87 years (M = 66.81, SD = 5.2). Among them, the proportion of 60–69 years was the highest (78.6%). Most of the participants were widowed (54.8%). 53.6% of the participants had a common income of 0 to 5000k. Most participants had history of surgery (67.9%).

Table 2 Frequency, percentage, means and standard deviation of the patients (N=82)

Characteristics	Frequency	Percent%
Age（*M*=66.81, *SD*=5.2,*Min*=61,*Max*=87）		
60-69	66	78.5
70-79	15	17.9
>=80	3	3.6
Gender		
Male	51	60.7
Female	33	39.3
Martial status		
Single	4	4.8
Married	23	27.4
Divorced	11	13.1
Widowed	46	54.7
Educational Level		
junior high school	17	20.2
secondary schools	34	40.5
senior high school	16	19.1
undergraduate	17	20.2
Medical expenses		
medical insurance	33	39.3
own expense	51	60.7
Income		
（*M*=4406.19,*SD*=1403.73,*Min*=2900,*Max*=13000）		
0-5k	45	53.6
5-10k	30	35.7
>10k	9	10.7
Surgical history		
Yes	57	67.9
No	27	32.1

Part 2 Description of pre-operative anxiety

The major portion of pre-operative anxiety had a moderate level of anxiety (87.80%) (score 41–60). The details are shown in Table 3.

Table 3 Description of pre-operative anxiety (n = 82)

pre-operative anxiety	n	%
Mild anxiety (score 20-40)	7	8.54
Moderate anxiety (score 41-60)	72	87.80
High anxiety (score 61-70)	3	3.66

Table 4 Is a description of the general surgery pre-operative anxiety of the elderly.On the whole, nearly 33% of patients do not feel anxiety, tension and other emotions before surgery, and nearly 42% patients occasionally have tension and fear; 15% patients have moderate anxiety and tension, and nearly 10% patients have severe anxiety and tension.

Table 4 Genera surgery pre-operative anxiety of the elderly (N=82)

Item	Absolutely not n(%)	Some n(%)	Medium degree n(%)	It's very obvious n(%)
I am extremely nervous	38(45.2)	29(34.5)	13(15.5)	4(4.8)
I have trouble now	36(42.9)	27(32.1)	17(20.2)	4(4.8)
I feel sad	31(36.9)	33(39.3)	17(20.2)	3(3.6)
I feel very nervous	29(34.5)	32(38.1)	19(22.6)	4(4.8)
I feel scared	28(33.3)	33(39.3)	20(23.8)	3(3.6)
I feel very anxious	26(31.0)	39(46.4)	14(16.7)	5(6.0)
I feel nervous and constrained	25(29.8)	31(36.9)	24(28.6)	4(4.8)
I hesitate	23(27.4)	39(46.4)	17(20.2)	5(6.0)
I feel very nervous	20(23.8)	37(44.0)	22(26.2)	5(6.0)
I am very worried	19(22.6)	40(47.6)	22(26.2)	3(3.6)
I am confident	14(16.7)	21(25.0)	35(41.7)	14(16.7)
I feel good	12(14.3)	24(28.6)	29(34.5)	19(22.6)
I feel safe	11(13.1)	19(22.6)	29(34.5)	25(29.8)
I feel very good	11(13.1)	26(31.0)	31(36.9)	16(19.0)
I feel relaxed	11(13.1)	28(33.3)	29(34.5)	16(19.0)
I am very satisfied	10(11.9)	19(22.6)	32(38.1)	23(27.4)
I feel calm	9(10.7)	27(32.1)	38(45.2)	10(11.9)
I feel very happy	8(9.5)	25(29.8)	31(36.9)	20(23.8)
I am very satisfied	7(8.3)	28(33.3)	33(39.3)	16(19.0)
I feel calm	6(7.1)	27(32.1)	41(48.8)	10(11.9)

Part 3 Relationships between selected factors and pre-operative anxiety.

Pearson correlation analysis were carried out to study age, education level, marital status, income, and the correlation between social support and pre-operative anxiety. If $r < 0.3$, the correlation is low; if $0.7 > r > 0.3$, the correlation is moderate; if $r > 0.7$, the correlation is high. Thus, there's no outlier. All assumptions were met.

The Pearson correlation was used to analyze the relationship between dependent variables and independent variables and the relationship between independent variables. Table 5 shows that age was negatively correlated with pre-operative anxiety ($r= -0.268$, $p< 0.05$), and married status was moderately positively correlated with pre-operative anxiety ($r=-0.398$, $p< 0.01$). Social support was negatively correlated with pre-operative anxiety ($r= -0.508$, $p< 0.01$). However, the education level and income and no significant correlation between pre-operative anxiety.

Table 5 Pearson correlation coefficient between selected factors and pre-operative anxiety (N=82)

Factors	pre-operative anxiety (r)
1. Age	-0.268*
2. Marriage status: Married	0.398**
3. Educational experience	-0.013
4. Income	-0.039
5. Social support	-0.508**

* $p< .05$, ** $p < .01$

CHAPTER 5
CONCLUSION AND DISCUSSION

To investigate the pre-operative anxiety level of the elderly aged 60 years and over in Jinzhou city and its relationship with age, education level, marital status, economic income, social support and other factors. The results showed that pre-operative anxiety was prevalent and related to age, married status and social support.

Summary the results of the study

This study aims to investigate the pre-operative anxiety level of the elderly in Jinzhou, and to explore its relationship with demographic factors such as age, marital status, education level, income, and social support. Results show that most of the elderly patients with normal pre-operative exist different degrees of anxiety. Age and pre-operative anxiety negatively related to process, the married state were moderately positive correlated with pre-operative anxiety, social support and pre-operative anxiety is moderate negative correlation, in addition, the study found that the degree of education level and income level there was no significant correlation with pre-operative anxiety.

The analysis results showed that 60 to 69 years old patients accounted for 78.5% of the patients, in the marital status of patients, widows accounted for the highest proportion of 54.7%, the number of education, junior high school and undergraduate students was the same, accounting for 20.2%, from the perspective of medical expenses payment, self-payment accounted for 60.7% of the patients. Patients with 0-5k accounted for 53.6%, and 67.9% had a history of surgery. The results showed that the Age was negatively correlated with pre-operative anxiety ($r= -0.268$, $p< 0.05$), and marital status was moderately positively correlated with pre-operative anxiety ($r=-0.398$, $p< 0.01$). Social support and negatively correlated with pre-operative anxiety ($r = 0.508$, $p < 0.01$). However, education level and income had no significant correlation with pre-operative anxiety.

Discussion

The aim of this study was to describe general pre-operative elderly anxiety and examine its influencing factors. Therefore, the discussion section focuses on the objectives of the study.

1. The elderly general surgery pre-operative anxiety

In general, nearly 33% of the patients did not feel anxiety and tension before surgery, and nearly 42% of the patients occasionally felt tension and fear. Fifteen percent of patients had moderate pre-operative anxiety, and nearly 10 percent had severe pre-operative anxiety.

The results of this study indicate that most patients have different anxiety conditions before surgery, although some patients still have moderate or obvious anxiety before surgery, but this is understandable. After all, general surgery is a major life event for most people and can bring a certain amount of psychological anxiety.

Based on the analysis of demographic factors and the relationship between the pre-operative anxiety, this study has found that age, marital status and social support has a significant influence for Jinzhou city the anxiety level of the elderly. with previous studies suggest anxiety increases with the growth of the age (Li et al., 2021) , in addition, although income levels play an important role in our daily life, but it seems to be not significant factors of pre-operative anxiety. This may be because the surgery itself is an important health event for the patient, generating inherent worry and anxiety regardless of income level. However, we cannot completely ignore the indirect effect of income level. For example, higher income may mean better medical resources and social support, which may alleviate patient anxiety to some extent, but this effect was not significant in this study.

2. Factors related to pre-operative anxiety among older adult undergoing general surgery

For the relationship between age and pre-operative anxiety, this study found that there is negative correlation. This study and previous studies, for example, (Li et al., 2021) points out that age affects elderly patients with pre-operative anxiety level, age is considered to be one pre-operative anxiety levels of a factor, due to the changes of physical ability, age may also affect a person pre-operative anxiety. This study also found that age, and negatively correlated with pre-operative anxiety, show that age,

the lower the anxiety level, this may indicate age, the more experience, more experience and better attitude to cope with this challenge.

In terms of marital status, our findings suggest that married patients have low levels of pre-operative anxiety. have lower level of pre-operative anxiety. This may be due to their partner's support would help reduce their anxiety. (Johnson & Johnson, 2019). It is suggested that marital status may influence pre-operative anxiety through emotional and psychological support. Married patients usually have stable family relationships and can receive care and support from their spouses and family members. This kind of family support can greatly reduce patients' anxiety and make them more calm and confident in the face of surgery. married patients may be more aware of their health and better prepared before surgery. this preparation makes them more aware of the procedure and possible risks, thus reducing anxiety. although married patients had relatively low levels of anxiety before surgery, everyone's situation was different. For the anxiety before surgery, patients can take some measures to relieve, such as full communication with the doctor, understanding the surgical process, relaxation training, such as full communication with physicians and nurses, understanding the surgical process, relaxation training.

Social support is crucial for alleviating pre-operative anxiety. Our study indicates that a robust social support system can significantly reduce pre-operative anxiety (Wang & Zhao, 2022). Social support provides emotional comfort and practical help, assisting patients in facing surgical challenges more positively.

Similarly, there was a negative correlation between social support scores and pre-operative anxiety. This means that the more support more support the patients have, the less anxiety they are likely to experience before surgery. this support may come from family, friends, colleagues, etc., who provide emotional support, information support and material support to some extent to help these patients reduce pre-operative anxiety. The living style of the elderly group is more diversified than that of the young middle-aged group. The elderly may live alone, live with their families or other institutions due to their different family conditions. (ShanjieXiao.2018). The survey results of elderly patients with hip fracture show that the distance from their children is correlated with the degree of pre-operative anxiety of patients during the postoperative bed rest period and the stage of joint function exercise, someone

needs to take care and accompany them. The support of relatives and families is one of the contents of patients' social support, which can reflect the degree of patients' connection with society. Good social support can increase patients' confidence in overcoming the disease and help alleviate negative emotions such as anxiety and fear (Ai et al., 2020). Studies have shown that pre-operative anxiety is an independent risk factor for postoperative delirium in elderly patients (Zemła et al., 2019). In the face of anxietyors such as surgery, elderly patients may suffer from sleep disorders and negative emotions such as tension, anxiety and worry, among which anxiety is one of the most common psychological reactions, with an incidence of up to 80% (Croke, 2020). . Therefore, it can be seen that patients can effectively reduce patients' pre-operative anxiety by obtaining support, care and help from friends, neighbors, colleagues and family members. For example, when encountering troubles patients mentioned that, I should talk to people around me for help, actively participate in activities organized by groups (such as party organizations, trade unions, religious organizations, student unions, etc.), maintain a good relationship with family members, get financial support and help to solve practical problems when encountering emergencies, and take the initiative to find non-drug intervention methods to reduce my pre-operative anxiety.

This study revealed that income level was not associated with pre-operative anxiety, A although income level plays an important role in our daily lives, it did not appear to be a significant influencing factor when it came to pre-operative anxiety. This may be because the surgery itself is an important health event for the patient, creating a level of worry and anxiety for the patient regardless of income level. Nevertheless，the indirect effects of income levels on pre-operative anxiety should be considered.the indirect effects of income levels. For example, higher income may mean better medical resources and social support, which may reduce patients' anxiety to some extent. But in this study, the effect was not significant. (Dong et.2019).

Similarly, there was no association between patients with different educational experiences and pre-operative anxiety. Some researchers believe (Corman et al., 1958) that patients with primary school education have a high degree of pre-operative anxiety, and the limited education leads to their lack of disease-related knowledge, and the sense of uncertainty will also increase the psychological pressure

of patients. In this study, it was not directly pointed out that there were significant differences in the anxiety level of patients with different educational experiences before surgery. That said, educational experience itself may not be the primary factor that directly influences pre-operative anxiety. While educational experience itself may not be a factor that directly influences pre-operative anxiety, it may indirectly influence a patient's mental state and ability to cope. For example, highly educated patients may be better able to understand and accept the risks and uncertainties of surgery, reducing anxiety.

In summary, pre-operative anxiety was associated with age, marriage, and social support, but not with education and income. Therefore, before surgery, medical staff and family members should pay attention to patients' social support, encourage patients to actively seek social support, enhance patients' sense of social support, and reduce patients' anxiety before surgery. Guide patients to correctly evaluate their own health status, reduce emotional fluctuations, improve psychological tolerance, and respond to surgery with positive and good emotions.

Recommendations

For nursing practice

The results of this study will provide evidence for nurses and other health care workers to understand the anxiety-related factors of patients before surgery in Jinzhou area. nurses and health workers have information about the factors related to pre-operative anxiety in the elderly, and they may pay attention to these factors when providing care to prevent pre-operative anxiety.nursing teachers use the related factors of pre-operative anxiety of the elderly in teaching to enable students to better understand the related factors of pre-operative anxiety of the elderly.nursing administration (if possible)The information obtained through this study will help nurses to make better plans and intervention measures for patients with pre-operative anxiety, so as to improve patients' anxiety, improve their quality of life and promote the recovery of the disease. Researchers can apply these related factors to future studies to study the predictors of pre-operative anxiety in the elderly or include these related factors in quasi-experimental studies.

For nursing education

The findings of this study provide more knowledge about pre-operative anxiety in elderly adults and its influencing factors. The nursing curriculum should include knowledge in the field of nursing, especially in the field of surgical nursing in general surgery. in addition, through nursing education, nursing staff can better understand and cope with the impact of these factors on pre-operative anxiety, and provide more comprehensive and individualized nursing services for patients. at the same time, promoting patients' social support effectively cope with surgical challenges are recommended.

For further studies

This study investigated the relationship between 5 factors and pre-operative anxiety in the elderly. Further research is needed on the other factors in this population. The future research direction and focus are expected, including further exploring influencing factors of pre-operative anxiety, and studying the characteristics and differences of pre-operative anxiety under different types of surgery, and developing more effective pre-operative anxiety intervention to reduce this distress.

REFERENCES

Ai, A. L., McMullen, C. A., & Smyth, S. S. (2020). pre-operative optimism related to low anxiety in patients 1 month After open heart surgery. *J Nerv Ment Dis, 208*(12), 966-973. doi:10.1097/nmd.0000000000001236

An Q, Guo P, Yuan YB, & Zhang JX. (2021). pre-operative anxiety in patients with oral and maxillofacial tumors and its influencing factors. International Journal of Psychiatry*, 48*(03), 532-535. doi:10.13479/j.cnki.jip.2021.03.041

An, Y., Cao, Z., Liu, J., Zhang, L., & Zhao, L. (2018). Path analysis of the effects of self-efficacy, social support and coping style on psychological resilience in breast cancer patients undergoing chemotherapy. *Chinese Journal of Modern Nursing, 24*(3), 288-289.

Berzins, T. L., Garcia, A. F., Acosta, M., & Osman, A. (2016). The social anxiety and depression life interference-24 inventory: Classical and modern psychometric evaluations. *Personality and Individual Differences, 98*, 16-24. doi:10.1016/j.paid.2016.03.048

Buehrer, T. W., Rosenthal, R., Stierli, P., & Gurke, L. (2015). Patients' views on regional anesthesia for elective unilateral carotid endarterectomy--A prospective Cohort Study. *Annals Of Vascular Surgery*, 29(7), 1392-1399. doi:10.1016/j.avsg.2015.04.085

Caumo, W., Schmidt, A. P., Schneider, C. N., Bergmann, J., Iwamoto, C. W., Bandeira, D., & Ferreira, M. B. (2001). Risk factors for pre-operative anxiety in adults. *Acta Anaesthesiol Scandinavia, 45*(3), 298-307. doi:10.1034/j.1399-6576.2001.045003298.x

Chen Yuan, Ma Hongmei, chen zi, jia yuling, wang xiao, & chen jiaojiao. (2018). (in Chinese). Perceived social support scale in chronic diseases, the analysis of the reliability and validity of the elderly. Journal of nursing, 25 (18), 5-8. https://doi.org/10.16460/j.issn1008-9969.2018.18.005

Cheng, X. Y. (2023). Effect of evidence-based nursing intervention on psychological state and complications in elderly patients with hernia surgery. Modern Diagnosis and Therapy, 34(20), 3143-3145.https://kns.cnki.net/kcms2/article/abstract?v=LAPUTnZ325fHMpum7IlHeO2oBXlncbfEo_NANheeqsg_Wz7mD1kcJGZ9WqK4y7gOKVnMKCvOyL9D7uwab7OvVZv0lbYUGTtBofBEPc5yjDo6FCGMlTnE05oVcsvRrXf7NsTi7hEFMof-fybXHfme4JhCorGMfSlu&uniplatform=NZKPT&language=CHS

Corman, H. H., Hornick, E. J., Kritchman, M., & Terestman, N. (1958). Emotional reactions of surgical patients to hospitalization, anesthesia and surgery. *american journal of surgery, 96*(5), 646-653. doi:10.1016/0002-9610(58)90466-5

Croke, L. (2020). Nonpharmacologic strategies to help reduce pre-operative patient anxiety. *Aorn journal, 111*(2), P8-p10. doi:10.1002/aorn.12970

Cunningham, M. F., Monson, B., & Bookbinder, M. (1997). Introducing a music program in the perioperative area. *Aorn journal, 66*(4), 674-682. doi:10.1016/s0001-2092(06)62920-7

Costa, R. C., Cvacanlti, Y. W., Valenca, A. M. G., & Almedia, L. d. F. D. d. (2019). Sutures modified by incorporation of chlorhexidine and cinnamaldehyde: anti-Candida effect, bioavailability and mechanical properties. *Revista de Odontologia da UNESP, 48*. Retrieved from

http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1807-25772019000100416&nrm=iso

Du, Y., Cui, Y., Cai, X., Li, Y., & Yang, D. (2020). [Analysis of Influencing Factors of pre-operative Anxiety or Depression in Patients with Lung Cancer Surgery]. *Zhongguo Fei Ai Za Zhi, 23*(7), 568-572. doi:10.3779/j.issn.1009-3419.2020.105.01

Fergus, T. A., Valentiner, D. P., Kim, H. S., & McGrath, P. B. (2014). The social interaction anxiety scale (SIAS) and the social phobia scale (SPS): a comparison of two short-form versions. *Psychological Assessment, 26*(4), 1281-1291. doi:10.1037/a0037313

Jia, T., Ogawa, Y., Miura, M., Ito, O., & Kohzuki, M. (2016). Music attenuated a decrease in parasympathetic nervous system activity after exercise. *PLoS One, 11*(2), e0148648. doi:10.1371/journal.pone.0148648

Koch, M. E., Kain, Z. N., Ayoub, C., & Rosenbaum, S. H. (1998). The sedative and analgesic sparing effect of music. *Anesthesiology, 89*(2), 300-306. doi:10.1097/00000542-199808000-00005

Kumar, A., Das, S., Chauhan, S., Kiran, U., & Satapathy, S. (2019). Perioperative anxiety and anxiety and stress in children undergoing congenital cardiac Surgery and Their Parents: Effect of Brief Intervention—A Randomized Control Trial. *Journal of Cardiothoracic and Vascular Anesthesia, 33*(5), 1244-1250. doi:https://doi.org/10.1053/j.jvca.2018.08.187

Li, X. R., Zhang, W. H., Williams, J. P., Li, T., Yuan, J. H., Du, Y., . . . An, J. X. (2021). A multicenter survey of perioperative anxiety in China: Pre- and postoperative associations. *J Psychosom Res, 147*, 110528. doi:10.1016/j.jpsychores.2021.110528

Liao, Q., & Li, X. (2019). Meta analysis of the effect of psychological intervention on negative emotion and quality of life in patients with gastrointestinal malignant tumor. *South China Preventive Medicine, 45*(5), 34-3791.

Liu Biao, Zhou Yueping, shen qi-you, zhang chun-cin, wang bin, ji cheng-gang, & wang wei. (2006). A clinical analysis of 1526 cases of abdominal operation in the aged. Lingnan journal of emergency medicine (5), 374-375.https://kns.cnki.net/kcms2/article/abstract?v=LAPUTnZ325cEGB6XMkP0H3pLgw8OABwjD1ANn-Lp7-9x6Qzl-SR4LFINCCC74cMSkNuAbH9mZyIjZdloTfRp70mIjI3uNfaKr3bYg4-5zKrjUwcUShZMgOes7GnJ-V88kC7skt13sr9YXxdLVmABbA==&uniplatform=NZKPT&language=CHS

Liu, Y., Gao, J., & Yang, X. (2018). Analysis of psychological status and its influencing factors in patients with perioperative diabetic retinopathy. *Chinese Journal of Disease Control*(7), 717-720.

Maatta, J., Martikainen, A., Pakarinen, M., Ikaheimo, T. M., Nissen, M., von Und Zu Fraunberg, M., & Huttunen, J. (2019). High Level of childhood trauma predicts a poor response to spinal cord stimulation in chronic neuropathic Pain. *Pain Physician, 22*(1), 37-44.

Munafò, M. R., & Stevenson, J. (2001). Anxiety and surgical recovery. Reinterpreting the literature. *journal of psychosomatic research, 51*(4), 589-596. doi:10.1016/s0022-3999(01)00258-6

Nagase, K., & Ando-Nagase, K. (2000). pre-operative anxiety and intraoperative

anesthetic requirements. *anesthesia and analgesia, 91*(1), 250. doi:10.1097/00000539-200007000-00062

Palmer, J. B., Lane, D., Mayo, D., Schluchter, M., & Leeming, R. (2015). Effects of Music Therapy on Anesthesia Requirements and Anxiety in Women Undergoing Ambulatory Breast Surgery for Cancer Diagnosis and Treatment: A Randomized Controlled Trial.*Journal of Clinical Oncology, 33*(28), 3162-3168. doi:10.1200/jco.2014.59.6049

Pan Xin, zan wang, xiong miaomiao, wang Dan, & Liu Jidong. (2018). Risk factors for moderate to severe anxiety before surgery. Journal of Clinical Anesthesiology*, 34*(05), 425-428. Retrieved from https://kns.cnki.net/kcms2/article/abstract?v=axnrJTP8flwE8cIwrwoPYwDLwgh1rth5ywEVJpsMskSrnsDaAbokvcy_yq0FD5tdbUOQa_MZDWCLeVqn1ZHCh5MnR9DNqbRdn7dltJJySz2VWBlJH8mI3ViQl2t5rzLB0QcEZEAZYoO-m2xNiIujCw==&uniplatform=NZKPT&language=CHS

Rice, S. G. (2008). Medical Conditions Affecting Sports Participation. *Pediatrics, 121*(4), 841-848. doi:10.1542/peds.2008-0080

Spielberger, C. D. (1966). Theory and research on anxiety. In *Anxiety and behavior* (1 st ed.). New York: Academic press.

Spielberger, C. D. (1983). *State-Trait Anxiety Inventory STAI*. Consulting Psychologists Press: Palo Alto.

Spielberger, C. D., Gorsuch, R. L., & Lushene, R. E. (1970). *Manual for the state-trait anxiety inventory*. Palo Alto, CA: Consulting Psychologists Press.

Srifuengfung, M., Abraham, J., Avidan, M. S., & Lenze, E. J. (2023). Perioperative Anxiety and Depression in Older Adults: Epidemiology and Treatment. *Am J Geriatr Psychiatry*, *31*(11), 996-1008. https://doi.org/10.1016/j.jagp.2023.07.002

Stamenkovic, D. M., Rancic, N. K., Latas, M. B., Neskovic, V., Rondovic, G. M., Wu, J. D., & Cattano, D. (2018). pre-operative anxiety and implications on postoperative recovery: what can we do to change our history. *Minerva Anestesiol, 84*(11), 1307-1317. doi:10.23736/s0375-9393.18.12520-x

Tan, D. J. A., Polascik, B. A., Kee, H. M., Hui Lee, A. C., Sultana, R., Kwan, M., . . . Sng, B. L. (2020). The Effect of P\perioperative music listening on patient satisfaction, anxiety, and depression: a quasiexperimental study. *Anesthesiol Res Pract, 2020*, 3761398. doi:10.1155/2020/3761398

Tao, D., Li, Y., Wang, L., & Gou, Q. (2018). Effect of comfort nursing combined with clinical nursing pathway on pre-operative anxiety, surgical anxiety and postoperative psychosomatic comfort of patients undergoing hysteromyomectomy. *Chinese Oncology Clinical and Rehabilitation, 25*(4), 480-483.

Vernon, D. T., Foley, J. M., Sipowicz, R. R., & Schulman, J. L. (1971). [The psychological responses of children to hospitalization and illness]. *Kango Kenkyu, 4*(1), 45-54.

Wang, H., Zhang, L., Sun, M., Kang, L., & Wei, X. (2021). Perioperative treatment compliance, anxiety and depression of elderly patients with ophthalmic surgery and the influential factors.*annals of palliative medicine, 10*(2), 2115-2122. doi:10.21037/apm-21-37

Wang li da-yong liu, & Chen Kun. (2020). The breast cancer surgery patients with anxiety, depression status and related factors analysis. International journal of

psychiatry, 47 (6), 1222-1225. https://doi.org/10.13479/j.cnki.jip.2020.06.039

Xiao, S. (1994). The theoretical basis and research application of Social support rating scale. *Journal of Clinical Psychiatry, 4*(2), 98-100.

Xiao S J. (2018). Effect of pre-operative anxiety on postoperative recovery in elderly patients with hip fracture. Chinese hospital statistics *25*(04), 260-262. Retrieved from https://kns.cnki.net/kcms2/article/abstract?v=axnrJTP8flx_9FdQCQoQYwryW-ArwhklmJhX8PFbHS12hJGUTz_iH78M6uBpi-xPIcDlRGmptOBylUrTS5niDzSqrZ3CJFbADRw44YnQgt4YIDWbX4QPVDjY5Z3L7bybjHbUHzy9kVImWy63mE4PEw==&uniplatform=NZKPT&language=CHS

Yu, M., & Cha, R. (2019). Investigation and analysis of anxiety state of neurosurgical patients and their families. *Journal of Practical Hospital Clinical, 16*(01), 151-153.

Zemła, A. J., Nowicka-Sauer, K., Jarmoszewicz, K., Wera, K., Batkiewicz, S., & Pietrzykowska, M. (2019). Measures of pre-operative anxiety. *Anaesthesiol Intensive Ther, 51*(1), 64-69. doi:10.5603/ait.2019.0013

Zhang, X., Yu, W., Zong, W., Liu, J., Xia, X., & Zhou, Q. (2019). A survey of perioperative anxiety and analysis of risk factors in patients undergoing elective surgery in neurosurgery. *Chinese Journal of Modern Nursing, 25*(28), 3611-3616.

Zhao, J., Si, Q., Li, J., Zou, X., Zuo, J., Zou, L., Liu, Y., Zhang, L., Fan, L., & Hu, Y. (2021). Wweak in elderly patients with stable coronary artery disease detection rate and its risk factors. Chinese journal of clinical care, 24 (4), 447-453.https://kns.cnki.net/kcms2/article/abstract?v=LAPUTnZ325fmq2qO4wzlptXsi55ns9dIxMAQSDMtI3T9NhG1uN_2mPHwv982VDVfTS4XEESN40cozXkv5c_it8k8WXO7lDRk_LM1cMZwB-cgJC4yAqc41CtLNVYJxYvg5h_CrLgBPQtw-L8ASokbbcNUPZsOXTMD&uniplatform=NZKPT&language=CHS

Zhu QC, & Wu Y. (2020). Investigation and analysis of anxiety level and information needs of patients undergoing receiving surgery during induction waiting period. Chinese clinical medicine*, 27*(02), 254-259.

APPENDIX

APPENDIX A

Questionnaires in English and Chinese

Part 1: The demographic questionnaire

Direction: Please respond to the following questions by placing a check mark (✓) in the answer box that corresponds to your response and/ or fill in the blank where indicated.

1. Gender
   ☐ Male ☐ Female
2. Age _____ years old
3. Marital status
   ☐ Single ☐ Married ☐ Divorced
   ☐ Widowed
4. Education level _____ Years
5. Average individual income per month_____ ¥ (Chinese Yuan)
6. Surgical experience
   ☐ Yes ☐ No
7. The way for payment for medical expenses
   ☐ Medical insurance ☐ Out-of-pocket payments

Part 2: Spielberger scale [S-AI]

Direction: Please respond to the following questions by placing a check mark (✓) in the answer box that corresponds to your response.

	None (1)	**Some (2)**	**Medium (3)**	**Very obvious (4)**
1. I feel calm.				
2. I feel safe.				
3. ……..				
4. ……				
5. ……..				
6. ……..				
7. ……..				
8. ……..				
9. ……..				
10. ……..				
11. ……..				
12. ……..				

	None (1)	Some (2)	Medium (3)	Very obvious (4)
13. …….				
14. ……..				
15. …….				
16. ……..				
17. ……..				
18. ……..				
19. ……..				
20. I feel happy.				

Topics 1, 2, 5, 8, 10, 11, 15, 16, 19, 20 are scored in reverse order

Part 3: Social support rating scale [SSRS]

Direction: Please respond to the following questions by placing a check mark (✓) in the answer box that corresponds to your response.

1. How many close friends do you have …….

- ☐ …….
- ☐ …….
- ☐ …….
- ☐ …….

2. Over the past year, you: (choose only one option)

- ☐ …….
- ☐ …….
- ☐ …….
- ☐ …….

3. The relationship between you and your neighbors: (choose only one option)

- ☐ …….
- ☐ …….
- ☐ …….
- ☐ …….

4. The relationship between you and your colleagues: (choose only one option)

☐ …….

☐ …….

☐ …….

☐ …….

5. ……..

	None support	Rarely support	General support	Full support
Couples (or lovers)	1	2	3	4
……	1	2	3	4
……	1	2	3	4
……	1	2	3	4
Others	1	2	3	4

6. In the past, when you were in an emergency…….:

☐ None sources

Following sources (you can choose more than one):

☐ …….

☐ …….

☐ …….

☐ …….

☐ …….

☐ …….

☐ …….

☐ …….

☐ Others (Please list) _____

7. In the past, when you were in an emergency, the sources of comfort and care were from:

☐ None sources

Following sources (you can choose more than one):

☐ …….

☐ …….

☐ …….

☐ …….

☐ …….

☐ …….

☐ …….

☐ …….

☐ Others (Please list) _____

8. How you pour your troubles out? (choose only one option)

☐ …….

☐ …….

☐ …….

☐ …….

9. How you ask for help when you meet troubles? (choose only one option)

☐ …….

☐ …….

☐ …….

☐ …….

10. For the activities organized by groups (such as party and caucus organizations, trade unions, religious organizations, student unions, etc.), you: (choose only one option)

☐ ……..

☐ …….

☐ …….

☐ …….

第一部分:人口统计问卷

方向:请在与您的回答相对应的回答框中打勾()，并/或在指示的空白处填空，回答以下问题。✓

1.性别

☐ **男性** ☐ 女性

2.年龄_____岁

3.婚姻状况

☐ 单身 ☐已婚 ☐离异 ☐丧偶

4.教育程度_____

5.平均每月个人收入 _____¥(**人民**币)

6. 手术经验

☐是的 ☐没有

7.医疗费的支付方式

☐医疗保险 ☐自费支付

第二部分:斯皮尔伯格量表[S-AI]

方向:请在以下问题上打勾()✓

在与你的回答相对应的回答框中。

	没有一个 (1)	**一些 (2)**	**媒介 (3)**	**很明显 (4)**
1.我感到平静。				
2.我感到安全。				
3.我很紧张。				
4. 我感到紧张和束缚。				
5.我觉得很舒服。				
6.我感到不安。				
7.我现在有麻烦了。				
8.我很满意。				
9.我感到害怕。				
10.我觉得很舒服。				

11.我有自信。				
12.我感到紧张不安。				
13.我非常紧张。				
14.我优柔寡断。				
15.我很放松。				
16.我很满意。				
17.我很烦恼。				
18.我感到慌乱。				
19.我感到平静。				
20.。我感到高兴。				

题目 1、2、5、8、10、11、15、16、19、20 按倒序打分

第三部分:社会支持评定量表[SSRS]

方向:请在以下问题上打勾()✓

在与你的回答相对应的回答框中。

1. 你有多少可以得到支持和帮助的亲密朋友?(只选一个选项)

☐ 没有一个

☐1 - 2

☐3 - 5

☐6 个及以上

2. 在过去的一年里，你:(只选一项)

☐ 远离家人，独自生活

☐住宿频繁变动，大部分时间和陌生人住在一起

☐与同学、同事或朋友住在一起

☐与家人同住

3. 你和邻居的关系:(只选一个选项)

☐互不关心，只是点头之交

☐遇到困难的时候，可能会有点关心

☐有些邻居关心你

☐大多数邻居关心你

4. 你和同事的关系:(只选一个选项)

☐从不关心对方，只是点头之交

☐遇到困难的时候，可能会有点关心

☐有些同事关心你

☐大多数同事关心你

5. 家庭成员的支持和关心:(从没有、很少、一般和完全支持四个选项中选择合适的选项)

	没有一个支持	很少的支持	一般支持	全力支持
情侣(或情侣)	1	2	3	4
父母	1	2	3	4
孩子们	1	2	3	4
表兄	1	2	3	4
其他人	1	2	3	4

6. 在过去，当你遇到紧急情况时，经济支持和帮助解决实际问题的来源是:

☐没有一个来源

以下来源(可选择多个):

☐ 配偶

☐其他家庭

☐亲戚

☐朋友

☐的同事们

☐工作单位

☐官方或半官方组织，如党、同盟或工会

☐非官方组织，如宗教和社会组织

☐其他(请列出) _____

7. 在过去，当你遇到紧急情况时，安慰和关怀的来源是:

☐没有一个来源

以下来源(可选择多个):

☐配偶

☐其他家庭

☐亲戚

☐朋友

☐的同事们

☐工作单位

☐官方或半官方组织，如党、同盟或工会

☐非官方组织，如宗教和社会组织

☐其他(请列出) _____

8. 你如何倾诉你的烦恼?(只能选择一个选项)

☐千万不要告诉任何人

☐只告诉 1-2 个亲密的人

☐当你的朋友问起的时候告诉他们

☐ 分享你的烦恼以获得支持和理解

9. 当你遇到困难时，你如何寻求帮助?(只选一个选项)

☐不要接受别人的帮助

☐很少请求别人的帮助

☐有时向别人求助

☐遇到困难时，总是向家人、亲戚和组织寻求帮助

10. 对于团体组织的活动(如政党和党团组织、工会、宗教组织、学生会等)，您:(只选一项)

☐千万不要参加

☐ 很少参与

☐ 经常加入

☐主动加入，积极主动

APPENDIX B

Invitation letters

MHESI 8137/1143

Graduate School, Burapha University
169 Longhaad Bansaen Rd.
Saensuk, Muang, Chonburi
Thailand, 20131

June 1st, 2021

Dear Xiang-Dong Wang,

On behalf of the Graduate School, Burapha University, I would like to request permission for Ms. YAQIAN ZHANG to use a research instrument for conducting research.

Ms. YAQIAN ZHANG 62910082, a graduate student of the Master of Nursing Science Program (International Program), Major in Adult Nursing Pathway, Faculty of Nursing, Thailand, was approved her thesis proposal entitled: "Factors Related to Anxiety in the Elderly Before General Surgery in Jinzhou, China", under supervision of Asst. Prof. Dr. Pornchai Jullamate as the principle advisor. She proposes to use a research instrument that is "Spielberger's State-Trait Anxiety Inventory (STAI)" from an article with entitled: "Psychological Evaluation Scale Manual" by Wang, X.-D., et al., published in *Chinese Mental Health Journal*, 31-35, 1999.

In this regard, you can contact Ms. YAQIAN ZHANG via mobile phone +86-1860-4163-271 or E-mail: 475081715@qq.com

Please do not hesitate to contact me if you need further relevant queries.

Sincerely yours,

(Assoc. Prof. Dr. Nujjaree Chaimongkol)
Dean of Graduate School, Burapha University

Graduate School Office
Tel: +66 3810 2700 ext. 701, 705, 707
E-mail: grd.buu@go.buu.ac.th
http://grd.buu.ac.th

MHESI 8137/1144

Graduate School, Burapha University
169 Longhaad Bansaen Rd.
Saensuk, Muang, Chonburi
Thailand, 20131

June 1st, 2021

Dear Shui Yuan Xiao,

On behalf of the Graduate School, Burapha University, I would like to request permission for Ms. YAQIAN ZHANG to use a research instrument for conducting research.

Ms. YAQIAN ZHANG 62910082, a graduate student of the Master of Nursing Science Program (International Program), Major in Adult Nursing Pathway, Faculty of Nursing, Thailand, was approved her thesis proposal entitled: "Factors Related to Anxiety in the Elderly Before General Surgery in Jinzhou, China", under supervision of Asst. Prof. Dr. Pornchai Jullamate as the principle advisor. She proposes to use a research instrument that is "Social Support Rating Scale (SSRS)" from an article with entitled: "The Theoretical Basis and Research Applications of Social Support Rating Scale (SSRS)" by Xiao, S.Y., published in *Journal of Clinical Psychological Medicine*, 4(2), 98-100, 1994. (*in Chinese*).

In this regard, you can contact Ms. YAQIAN ZHANG via mobile phone +86-1860-4163-271 or E-mail: 475081715@qq.com

Please do not hesitate to contact me if you need further relevant queries.

Sincerely yours,

(Assoc. Prof. Dr. Nujjaree Chaimongkol)
Dean of Graduate School, Burapha University

Graduate School Office
Tel: +66 3810 2700 ext. 701, 705, 707
E-mail: grd.buu@go.buu.ac.th
http://grd.buu.ac.th

APPENDIX C

Participant information sheet and consent form

PARTICIPANT'S IMFORMATION SHEET

Dear_____

I am Ms. YaqianZhang, a postgraduate student at Faculty of Nursing, Burapha University Thailand. My study is "Factors related to anxuety in the elderly before general surgery in Jinzhou, China ". This study studied the anxiety of elderly patients before general surgery in Jinzhou and the related factors of anxiety in elderly patients before general surgery in Jinzhou.

If you agree to participate in this study, you will answer the following questionnaire, which takes approximately 20 minutes. However, the information collected from this study may be useful for developing nursing models and interventions that can help medical nurses and hospitals and medical staff provide advanced and better care for elderly patients who are worried before surgery . Participants in the research will not have definite physical and psychological risks, nor can they cause any risks to society.

You have the right to terminate your participation in this study at any time without notifying the researchers. This will not affect the quality of services you receive from general surgery. Any information collected from this study, including your identity, will be kept confidential. The results of the research will be presented in a group of joint names for you, and no specific information about individual participation will be disclosed. All data is provided to researchers only, and researchers will destroy the findings one year after publication. If you wish, you will get further explanations after the study is completed.

The research will be conducted by Ms. YaiqianZhang under the supervision of my major-advisor, Associate Professor Dr. Pornchai Jullamate. If you have any questions, please contact me at mobile number: + 86186041623271 or by my e-mail: 475081715@qq.com, and/or my advisor's e-mail address pornchai@buu.ac.th, or you may contact Burapha University Institutional Review Board (BUU-IRB) telephone number 038 102 561-62. Your cooperation is greatly appreciated. You will be given a copy of this consent form to keep.

YaqianZhang

เอกสารแสดงความยินยอม

ของผู้เข้าร่วมโครงการวิจัย (Consent Form)

รหัสโครงการวิจัย : ……..

(สำนักงานคณะกรรมการพิจารณาจริยธรรมในมนุษย์ มหาวิทยาลัยบูรพา เป็นผู้ออกรหัสโครงการวิจัย)

โครงการวิจัยเรื่อง ……Factors related to anxuety in the elderly before general surgery in Jinzhou, China

Date of data collection ……..……Month…….……Year …….

Before giving my signature below, I have been informed by researcher, Ms. YaqianZhang about the purposes, method, procedures, benefits and possible risks associated with participation in this study thoroughly, and I understood all of the explanations. I consent voluntarily to participate in this study. I understand that I have the right to leave the study any time I want, without fearing that it might affect the quality of health care services that I will receive from the hospital and General Surgery.

The researcher Ms. YaqianZhang has explained to me that all data and information of the participants will be kept confidential and only be used for this study. I have read and understood the information related to participation in this study clearly and I am signing this consent form.

Signature ……..…….. Participant

(…….)

APPENDIX D

Ethical approval letter and data collection letter

部门	锦州医科大学附属第三医院医学伦理审查委员会	编码：JYDSY-IEC-YJS-01	编写者：曹宇
		版本：2.0	审核者：崔建娇
第1节	伦理审查委员会意见书	发布日期：2020-12-11	批准者：崔建娇
		生效日期：2020-12-26	第 1 页 共 1 页

锦州医科大学附属第三医院医学伦理审查委员会意见书

意见号：JYDSY-KXYJ-IEC-2024-028

项目编号	KX2024028		
项目名称	中国锦州地区老年人外科手术前与焦虑的相关因素调查		
研究单位	锦州医科大学附属第三医院	主要研究者	张雅倩
审查方式	□会议审查	□紧急会议审查	☑快速审查
审查日期	2021 年 7 月 28 日	审查地点	NA
结论	☑同意	□必要修改后同意	□必要修改后再审 □不同意

审查意见：

1. 研究具有科学价值。
2. 研究方案科学合理
3. 研究符合法律法规要求
4. 经本伦理委员会审查，同意按所批准的资料开展本项研究。

锦州医科大学附属第三医院医学伦理审查委员会

主任委员签名：

2021 年 7 月 28 日

声明：本伦理委员会的职责、人员组成、操作规程和记录遵循 ICH-GCP/中国 GCP、中国的相关法律和法规。本伦理委员会所有出席的委员在有效任职期间，将对所审阅的临床研究资料以及伦理委员会会议讨论的结果和相关内容保密，且与本研究项目无利益冲突。本批件有效期一年，到期则自行废止。

地址：锦州市凌河区和平路五段二号 邮编 121000 电话：0416-5082519

สำเนา

ที่ IRB3-100/2564

เอกสารรับรองผลการพิจารณาจริยธรรมการวิจัยในมนุษย์

มหาวิทยาลัยบูรพา

คณะกรรมการพิจารณาจริยธรรมการวิจัยในมนุษย์ มหาวิทยาลัยบูรพา ได้พิจารณาโครงการวิจัย

รหัสโครงการวิจัย : G-HS064/2564

โครงการวิจัยเรื่อง : Factors related to anxiety in the elderly before general surgery in Jinzhou, China

หัวหน้าโครงการวิจัย : MRS.YAQIAN ZHANG

หน่วยงานที่สังกัด : คณะพยาบาลศาสตร์

BUU Ethics Committee for Human Research has considered the following research protocol according to the ethical principles of human research in which the researchers respect human's right and honor, do not violate right and safety, and do no harms to the research participants.

Therefore, the research protocol is approved (See attached)

1. Form of Human Research Protocol Submission Version 1 : 15 July 2021
2. Research Protocol Version 1 : 15 July 2021
3. Participant Information Sheet Version 1 : 15 July 2021
4. Informed Consent Form Version 1 : 15 July 2021
5. Research Instruments Version 2 : 20 August 2021
6. Others (if any) Version - : -

วันที่รับรอง : วันที่ 13 เดือน กันยายน พ.ศ. 2564

วันที่หมดอายุ : วันที่ 13 เดือน กันยายน พ.ศ. 2565

ลงนาม *นางสาวรมร แย้มประทุม*

(นางสาวรมร แย้มประทุม)

ประธานคณะกรรมการพิจารณาจริยธรรมการวิจัยในมนุษย์ มหาวิทยาลัยบูรพา

ชุดที่ 3 (กลุ่มคลินิก/ วิทยาศาสตร์สุขภาพ/ วิทยาศาสตร์และเทคโนโลยี)

MHESI 8137/982

Graduate School, Burapha University
169 Longhaad Bangsaen Rd.
Saensuk, Muang, Chonburi
Thailand, 20131

July 1st, 2022

Dear Director of the First Affiliated Hospital of Jinzhou Medical University,

Enclosure: 1. Certificate ethics document of Burapha University
2. Research Instruments

On behalf of the Graduate School, Burapha University, I would like to request permission for Mrs. YAQIAN ZHANG to collect data for conducting research.

Mrs. YAQIAN ZHANG, ID 62910082, a graduate student of the Master of Nursing Science program in Adult Nursing Pathway, Faculty of Nursing, Burapha University, Thailand, was approved her thesis proposal entitled: "Factors related to anxiety in the elderly before general surgery in Jinzhou, China" under supervision of Assist. Prof. Dr. Pornchai Jullamate as the principle advisor. She proposes to collect data from 82 elderly people before surgery in the General surgical inpatient unit, the First affiliated hospital of Jinzhou Medical University. The data collection will be carried out from July 15 to August 30, 2022. In this regard, you can contact Mrs. YAQIAN ZHANG via mobile phone +86-1860-4163-271 or E-mail: 475081715@qq.com

Please do not hesitate to contact me if you need further relevant queries.

Sincerely yours,

(Assoc. Prof. Dr. Nujjaree Chaimongkol)
Dean of Graduate School, Burapha University

Graduate School Office
Tel: +66 3810 2700 ext. 701, 705, 707
E-mail: grd.buu@go.buu.ac.th
http://grd.buu.ac.th

MHESI 8137/981

Graduate School, Burapha University
169 Longhaad Bangsaen Rd.
Saensuk, Muang, Chonburi
Thailand, 20131

July 1st, 2022

Dear Director of the First Affiliated Hospital of Jinzhou Medical University,

Enclosure: 1. Certificate ethics document of Burapha University
2. Research Instruments (Try out)

On behalf of the Graduate School, Burapha University, I would like to request permission for Mrs. YAQIAN ZHANG to collect data for testing reliability of the research instruments.

Mrs. YAQIAN ZHANG, ID 62910082, a graduate student of the Master of Nursing Science program in Adult Nursing Pathway, Faculty of Nursing, Burapha University, Thailand, was approved her thesis proposal entitled: "Factors related to anxiety in the elderly before general surgery in Jinzhou, China" under supervision of Assist. Prof. Dr. Pornchai Jullamate as the principle advisor. She proposes to collect data from 30 elderly people before surgery in the General surgical inpatient unit, the First affiliated hospital of Jinzhou Medical University. The data collection will be carried out from June 27 to July 10, 2022. In this regard, you can contact Mrs. YAQIAN ZHANG via mobile phone +86-1860-4163-271 or E-mail: 475081715@qq.com

Please do not hesitate to contact me if you need further relevant queries.

Sincerely yours,

(Assoc. Prof. Dr. Nujjaree Chaimongkol)
Dean of Graduate School, Burapha University

Graduate School Office
Tel: +66 3810 2700 ext. 701, 705, 707
E-mail: grd.buu@go.buu.ac.th
http://grd.buu.ac.th

BIOGRAPHY

NAME	Ms. Yaqian Zhang
DATE OF BIRTH	10 March 1992
PLACE OF BIRTH	Jinzhou city, Liaoning province, China
PRESENT ADDRESS	Jintieli commune, Linghe district, Jinzhou city, Liaoning province, China
POSITION HELD	Registered nurse
EDUCATION	2015-2019 Bachelor of Nursing (B.S.N), Jinzhou Medical University, Jinzhou, China. 2019-2021 Master of Nursing Science (International Program)(M.N.S), Faculty of Nursing, Burapha University, Chonburi, Thailand.