Anxiety Level Among Patients Admitted with Chest Pain in Tertiary Care Hospital

Musarat Nazir, Fozia Kousar, Roofen Julious

Abstract

Introduction: Anxiety, as defined by Wilson-Barnett, is the fear of the unknown, disproportionate to the threat and related to the future. It is characterized by an individual's inability to specify the source of the threat. Chest pain can be a major source of stress and anxiety. These feelings are directly related to the invasive nature of the procedure and to uncertainties related to diagnosis. Chest pain and anxiety, relatives are also stressed and share feelings and uncertainties with the patients.**Method:** Quantitative cross-sectional study design was used to determine the anxiety level among patient with chest pain at tertiary care hospital. 56 patients with chest pain admitted at emergency department were selected as sample. Data was collected through the standardized well adopted 40 items questionnaires.**Results:** the results revealed that only (25) 47 % patients have low level of anxiety and majority (31) 53% have suffered from high level of anxiety. Further the demographical characteristics revealed that the gender of the participants was found 45 (80.4%) were male and 11 (19.6%) were female. Age of participants was found minimum 21 to highest 60, participant's age group 21-30 years frequency was 6 (10.7%), moderately 12 (21.4%) participants were belonging to age group 31-40 years, majority 29 (51.8%) were fall in age group 41- 50 years and 9 (16.1%) were 51-60-year-old. **Conclusions:** It is apparent from our study that counseling before cardiac procedure unquestionably reduces the anxiety level of the patients. Other factors, such as providing beds and other physical facilities to the patients further reduce the level of anxiety.

Keywords: anxiety, chest pain, emergency department, patients.
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INTRODUCTION

Background: Anxiety, as defined by Wilson-Barnett, is the fear of the unknown, disproportionate to the threat and related to the future. It is characterized by an individual's inability to specify the source of the threat. Chest pain can be a major source of stress and anxiety. These feelings are directly related to the invasive nature of the procedure and to uncertainties related to diagnosis (Jain, Sinha, & Verma, 2017). Chest pain and anxiety, relatives are also stressed and share feelings and uncertainties with the patients (Rosman, Gehi, & Sears, 2020).

Chest pain is one of the most common complaints among patient admitted in emergency. Managing the life-threatening conditions and making accurate diagnosis are the mainstays of management. In 40–60% of patients with chest pain, life-threatening conditions such as acute coronary syndrome are not determined and these patients are being discharged with diagnosis of non-specific chest pain (Reuter et al., 2019).

Evidence has indicated that properly preparing the patients and giving them some information about the procedure while they are suffering from chest pain and invasive procedures might not only decrease their anxiety but could also increase their tolerance to deal with pain. Besides it was associated with feeling a higher level of well-being and quality of life (Seyam, Hidarnia, & Tavafian, 2011).

Anxiety has been shown to lead to high levels of anxiety, creating delays in recovery and increased length of stay within the hospital. Historically, nurses have handled patient physiological needs with great confidence, but patient psychological needs, such as the manifestation of anxiety, have not received the same attention (Horenstein & Heimberg, 2020).

In group of patients with non-cardiac chest pain, 50–70% suffer continuous chest pain causing loss of labor, inappropriate hospitalization and unnecessary use of cardiac drugs. In patients with atypical chest pain without an organic reason, it is reported that psychiatric disorders such as panic attack and depression may be seen. There are studies reporting that frequency of depression, anxiety and alexithymia is higher than normal controls (Kimura et al., 2019).

Chest pain is a frequent cause of visits in medical emergency and cardiology settings. In approximately 50% of cases, patients present with noncardiac chest pain, that is, chest pain in the absence of identifiable cardiac etiology. Even though noncardiac chest pain is often medically benign, its negative impact on quality of life is long-lasting and comparable to that of cardiac disease (Hamel et al., 2022). Moreover, approximately remaining 50% chest pain may be the indication of cardiac disorders such as coronary heart disease, ischemic heart disease, myocardial infection, angina etc (Shao, Wang, Tian, & Tang, 2020).

In approximately half of the cases, chest pain is of cardiac origin, either ischemic cardiac or nonischemic cardiac disease. The other half is due to noncardiac causes, primarily esophageal disorder. Pain from either origin may occur in the same patient. In addition, psychological and psychiatric factors play a significant role in

the perception and severity of the chest pain, irrespective of its cause (Rezende, Ribas, Serrano Jr, & Hueb, 2019).

Most of the patients perceived the chest pain as due to the cardiac disorders without waiting the expert decision and feel depressed and anxious. Chest pain is associated with a high prevalence of psychiatric comorbidity 41–88%. The two most common psychiatric disorders in patients with chest visiting an emergency department are panic disorder 14–50% and generalized anxiety disorder 6–33%. These psychiatric comorbidities are associated with a less favorable non-cardiac chest pain presentation and have a serious impact on the patient's quality of life (Steffen, Nübel, Jacobi, Bätzing, & Holstiege, 2020).

Indeed, in patients with non-cardiac chest pain, panic disorder is associated with increased non-cardiac chest pain frequency and severity, increased risk of non-cardiac chest pain recurrence and lowered health-related quality of life. However, only the physical component of health-related quality of life and quickly diagnoses appears to be significantly affected in patients with non-cardiac chest pain who present with comorbid panic disorder (Hadlandsmyth, White, & Krone, 2013).

The impact of comorbid generalized anxiety disorder on chest pain and health-related quality of life has yet to be assessed. However, the presence of at least one psychiatric disorder is associated with elevated pain severity and life interference due to cardiac or non-cardiac chest pain. Moreover, generalized anxiety disorder has been linked to lowered quality of life in primary care patients, especially with regard to emotional health. In fact, the quality of life of patients with generalized anxiety disorder has also been found to be similar to that of patients with major depressive disorder and chronic medical conditions, such as arthritis. Based on these data, it is likely that the presence of comorbid generalized anxiety disorder negatively affects the presentation of non-cardiac chest pain and its consequences on health-related quality of life (Mansouri & Zayeri, 2019).

Helping patients cope with the anxiety of chest pain is a two-way street. Health professional needs to know the type of information that is necessary and that will be of benefit, but they need to tailor this to the needs and capabilities of the individual. For the benefit of the argument, let us assume the patient is about to undergo some cardiac procedure (Liu, Bates, Wiens, & Shah, 2019).

Even if panic disorder and generalized anxiety disorder are both anxiety disorders, they are independent diagnostic entities that are likely to have a differential impact on chest pain severity and health-related quality of life in patients with chest pain. Currently, it remains unclear how patients with chest pain and panic disorder compare to patients with chest pain and generalized anxiety disorder in terms of patterns of symptoms and health-related quality of life.

Therefore, the objectives of the present study were to describe and prospectively compare patients with chest pain, with or without comorbid panic disorder or generalized anxiety disorder, in terms of (1) chest pain severity; and (2) the physical and mental components of health-related quality of life. Assessing each component of anxiety is essential in order to understand how panic disorder and generalized anxiety disorder respectively.

Research Problem:
The patients whom are admitted with chest pain either cardiac or not feeling uninformed and nonparticipatory in the decision of his/her treatment, which led to disgruntlement among the patients visiting the center, creating an unpleasant feeling of fear, confusion as well as anxiety and panic disorder. Moreover, studies shows that the anxiety increased the risk of chest pain severity, panic disorder, worse complication and life-threatening condition. That's why there is need to determine the anxiety level among admitted patients with chest pain at emergency department of tertiary care.

Aim of the study: the aim of the study is to determine anxiety level among patients admitted with chest pain at emergency department of tertiary care hospital.

OBJECTIVES
- ✓ To determine anxiety level among patients admitted with chest pain at emergency department of tertiary care hospital.

OPERATIONAL DEFINITIONS
Anxiety: is a feeling of fear, dread, and uneasiness that cause to sweat, feel restless and tense, and have a rapid heartbeat among patients admitted with chest pain at emergency department of tertiary hospital.

That are measured by a rating on 40 items questionnaire from Not at all to very much so. The total score will be 1-160 with higher scores reflecting more anxiety level of patients. Anxiety: score ≥ 65) and (No anxiety: score ≤ 64).

Chest Pain: Chest pain is discomfort or pain that you feel anywhere along the front of body between your neck and upper abdomen. That may be due to cardiac problem or not.

MATERIAL AND METHODS
Study Design: Descriptive cross-sectional study design was used.
Settings: The study was conducted tertiary care hospital located at Lahore, Pakistan.
Study population: patients admitted at emergency department with chest pain.
Inclusion Criteria:
- Patient with 15/15 GCS level and stable vital sign.
- Willing to participate and able provide informed consent.

Exclusion Criteria:
- Altered level of consciousness.
- Already participate in another intervention study regarding nocturnal enuresis.

Duration of Study: Study duration was 03 months after the approval of synopsis.
Sampling Technique: Simple random sampling technique was used.
Sample Size: the sample was 56 patients.
Study Tool: a well adopted tool was used to collect data to determine anxiety level among patients admitted with chest pain in tertiary care hospital
Section A: Demographical variables
Consist of demographical variables such as, age, gender, education, comorbid.
Section B: Anxiety level; A form called the State-Trait Anxiety Inventory was used in order to determine anxiety levels. This is a validated 40 item self-report assessment device which includes separate measures of state and trait anxiety. The original tool form was constructed by Charles D. Spielberger, Richard L. Gorsuch, and Robert E. Lushene in 1970. According to the scale, higher scores are positively correlated with higher levels of anxiety (Spielberger, 1970). The tool had been adapted in more than 30 languages for cross-cultural research and clinical practice. In this study, the original version of the form was used.

ETHICAL CONSIDERATIONS
- ✓ Written permission was taken from the Ethical committee
- ✓ Permission was taken from the research board of tertiary care hospital to collect data.
- ✓ Written informed consent was taken from all participants.
- ✓ All the participants were informed about the purpose, procedure, benefits and nature of the study.
- ✓ All information and collected data were kept confidential by principal investigator hard copy in lock.
- ✓ Confidentiality of soft copy was maintained by scoring.
- ✓ The subject was informed that there are no disadvantages or risk on the procedures of the study.
- ✓ They were be informed that they were free to withdraw at any time during the process of the study.

Data Collection Procedure: After ethical approval from research Committee, 56 adult patients with chest pain admitted to emergency department was involved into the study. A form called the State-Trait Anxiety Inventory was filled by the patients in order to determine anxiety levels.

Data Analysis Procedure:
Data was entered and analyzed in SPSS version- 21. Quantitative variables were presented in the form of mean ± standard deviation and histogram will be made. Categorical variables were presented in the form of frequency and percentages. Pie chart or bar chart will be made. An association between level of anxiety and demographic variable was check by using Chi-square test. A statistically significant difference will be considered at p-value < 0.05, and no statistically significant difference was considered at p-value > 0.05.

Dependent variables
Anxiety
Independent variable
Chest pain

RESULTS
This study is conducted at tertiary care hospital to assess the anxiety level among patients admitted with chest pain. The result of this study distributed into two sections, first section is statistics of demographic factors of patients admitted in emergency department acquiring care regarding chest pain and second is frequency and statistics of checklist items regarding anxiety level of patients with chest pain.
Section A: Table 1 shows that the frequency of demographics includes gender, age, educational level, Comorbidities and Residential status of the 56 participants and the results revealed that the gender of the participants was found 45 (80.4%) were male and 11 (19.6%) were female. Age of participants was found minimum 21 to highest 60, participant's age group 21-30 years frequency was 6 (10.7%), moderately 12 (21.4%) participants were belonging to age group 31-40 years, majority 29 (51.8%) were fall in age group 41- 50 years and 9 (16.1%) were 51-60-year-old. The educational status of the participants results revealed that 12 (21.4%) were illiterate, 15 (26.8%) were Primary (class 1-8), 17 (30.4%) were Lower secondary (class 9-10), 8 (14.3%)

were Higher secondary (class 11-12) and only 4 (7.1%) were got Higher education (above 12). The patients with chest pain reported that 16 (28.6 %) were already diagnosed with diabetes Miletus (DM), 22 (39.3%) were hypertensive (HTN), 10 (17.9%) were suffered from dyslipidemia and only 8 (14.3%) were not have any comorbidities. Moreover, Majority 31 (55.4%) were living in urban area and only 25 (44.6%) were living in rural area.

Demographic Characteristics Frequency

Table 1

Demographic Variable		Frequency	Valid Percent
Age	21-30 years	6	10.7 %
	31-40 years	12	21.4 %
	41-50 years	29	51.8 %
	51-60 years	9	16.1 %
	Total	**56**	**100 %**
Gender	Male	45	80.4 %
	Female	11	19.6 %
	Total	**56**	**100 %**
Educational level	Illiterate	12	21.4 %
	Primary (class 1-8)	15	26.8 %
	Lower secondary (class 9-10)	17	30.4 %
	Higher secondary (class 11-12)	8	14.3 %
	Higher education (above 12)	4	7.1 %
	Total	**56**	**100.0 %**
Comorbidities	☐ DM	16	28.6 %
	☐ HTN	22	39.3 %
	☐ Dyslipidemia	10	17.9 %
	☐ None	8	14.3 %
	Total	**56**	**100 %**
Residential status	☐ Urban	31	55.4 %
	☐ Rural	25	44.6 %
		56	**100 %**

Table 2 shows that the statistics of the demographic characteristics such as age, gender, educational level, comorbidities and residential status, the results revealed that the lowest mean is 1.20 for gender and highest 2.73 for age. Standard deviation is (.863, .401, 1.187, 1.011, .502) for age, gender, educational level, comorbidities and residential status respectively.

Demographic Characteristics Statistics

Table 2

Demographics	Age	Gender	Educational level	Comorbidities	Residential status
n	56	56	56	56	56
Mean	2.73	1.20	2.59	2.18	1.45
Std. Deviation	.863	.401	1.187	1.011	.502

Table 2

Figure 1 shows that the gender of the participants was found 45 (80.4%) were male and 11 (19.6%) were female.
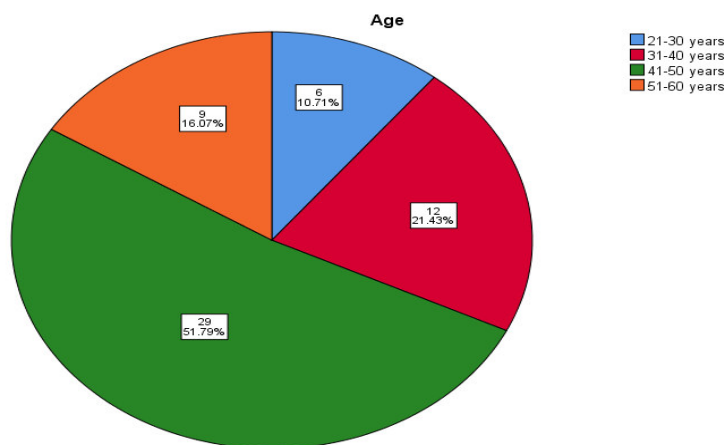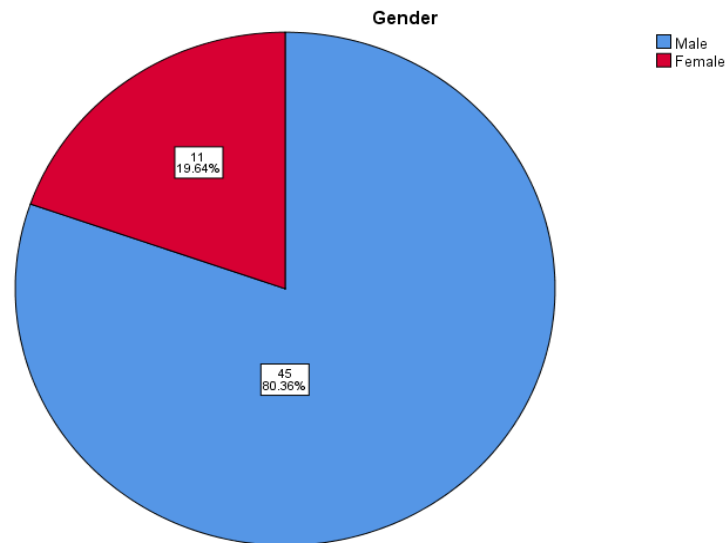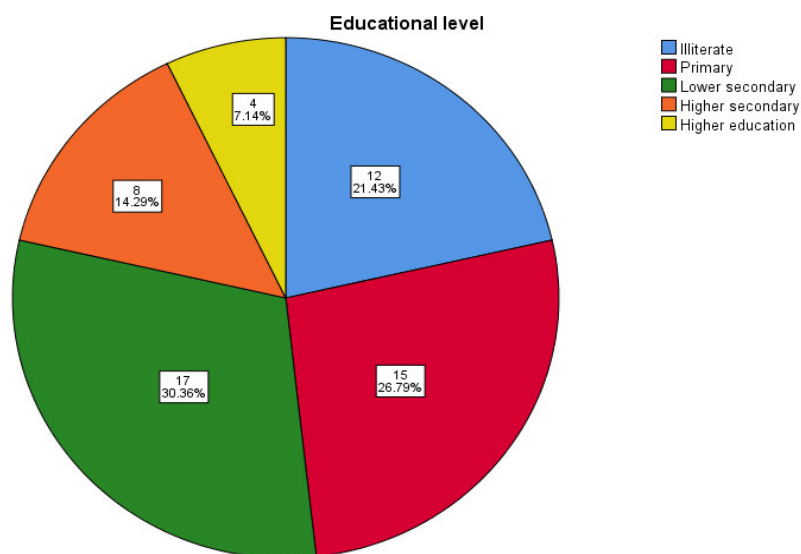

Figure 1

Figure 2 shows that the Age of participants was found minimum 21 to highest 60, participant's age group 21-30

years frequency was 6 (10.7%), moderately 12 (21.4%) participants were belonging to age group 31-40 years, majority 29 (51.8%) were fall in age group 41- 50 years and 9 (16.1%) were 51-60-year-old.
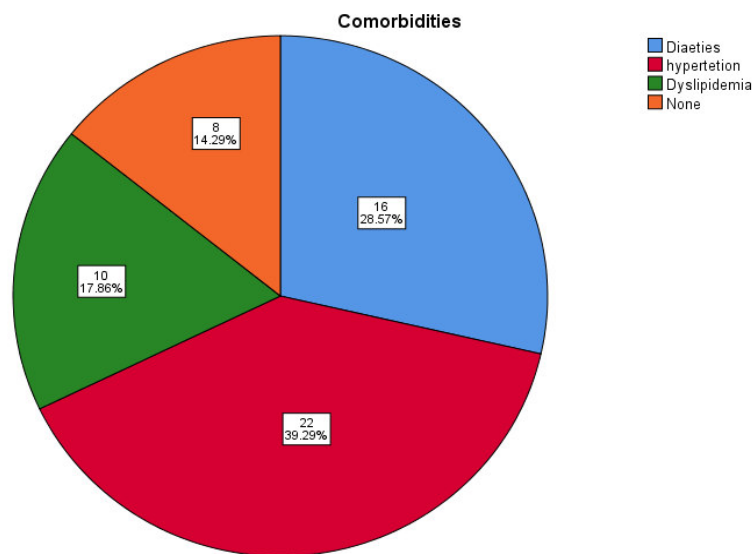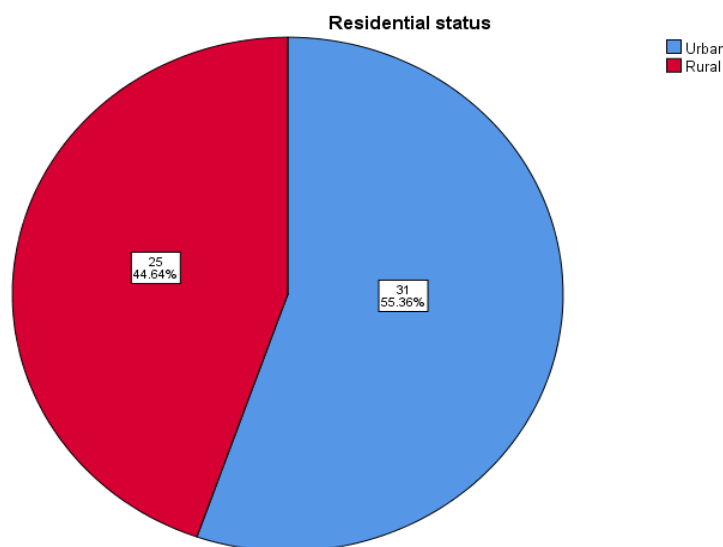

Figure 2

Figure 3 shows that the educational status of the participants results revealed that 12 (21.4%) were illiterate, 15 (26.8%) were Primary (class 1-8), 17 (30.4%) were Lower secondary (class 9-10), 8 (14.3%) were Higher secondary (class 11-12) and only 4 (7.1%) were got Higher education (above 12).

Figure 3

Figure 4 shows that the patients with chest pain reported that 16 (28.6 %) were already diagnosed with diabetes Miletus (DM), 22 (39.3%) were hypertensive (HTN), 10 (17.9%) were suffered from dyslipidemia and only 8 (14.3%) were not have any comorbidities.

Figure 4

Figure 5 shows that the educational status of the participants results revealed that 12 (21.4%) were illiterate, 15 (26.8%) were Primary (class 1-8), 17 (30.4%) were Lower secondary (class 9-10), 8 (14.3%) were Higher secondary (class 11-12) and only 4 (7.1%) were got Higher education (above 12).

Figure 5

Section B: Level of Anxiety among patients with chest pain, that reveals state anxiety and trait anxiety. The table 3 shows that the results regarding the state anxiety. The response of participants regarding item one that was "I feel calm" and 11 (19.6%) were select not at all, 16 (28.6%) were respond as somewhat, 22 (39.3%) were moderately agreed and only 7 (12.5%) were select very much so. Item two was "I feel secure" and 10 (17.9%) were go with not at all, 19 (33.9%) were respond as somewhat, 15 (26.4%) were moderately agreed ad 12 (21.4%) were select very much so. Item three was "I am tense" 22 (39.3%) were select not at all, 20 (35.7%) were respond as somewhat, 8 (14.3%) were moderately agreed, 6 (10.7%) were select very much so.

Item four that was "I feel strained" and 5 (8.9%) were select not at all, 14 (25%) were respond as somewhat, 26 (46.4%) were moderately agreed and only 11 (19.6%) were select very much so. Item five was "I feel at ease" and 10 (17.9%) were go with not at all, 16 (28.6%) were respond as somewhat, 19 (33.9%) were moderately agreed and 11 (19.6%) were select very much so. Item six was "I feel upset" 8 (14.3%) were select not at all, 22 (39.3%) were respond as somewhat, 17 (30.4%) were moderately agreed, 9 (16.1%) were select very much so.

Item seven that was "I am presently worrying over possible misfortunes" and 15 (26.8%) were select not at all, 23 (41.1%) were respond as somewhat, 13 (23.2%) were moderately agreed and only 5 (8.9%) were select very much so. Item eight was "I feel satisfied" and 12 (21.4%) were go with not at all, 19 (33.9%) were respond as somewhat, 13 (23.2%) were moderately agreed and 12 (21.4%) were select very much so. Item nine was "I feel frightened" 16 (28.6%) were select not at all, 20 (35.7%) were respond as somewhat, 14 (25%) were moderately

agreed, 6 (10.7%) were select very much so.

Item ten that was "I feel comfortable" and 7 (12.5%) were select not at all, 12 (21.4%) were respond as somewhat, 27 (48.4%) were moderately agreed and only 10 (17.9%) were select very much so. Item eleven was "I feel self-confident" and 13 (23.2%) were go with not at all, 15 (26.8%) were respond as somewhat, 19 (33.9%) were moderately agreed and 9 (16.1%) were select very much so. Item twelve was "I feel self-confident" 10 (17.9%) were select not at all, 14 (25%) were respond as somewhat, 20 (35.7%) were moderately agreed, 12 (21.4%) were select very much so.

Item thirteen that was "I am jittery" and 10 (17.9%) were select not at all, 14 (25%) were respond as somewhat, 16 (28.6%) were moderately agreed and only 16 (28.6%) were select very much so. Item fourteen was "I feel indecisive" and 10 (17.9%) were go with not at all, 17 (30.4%) were respond as somewhat, 26 (46.4%) were moderately agreed and 3 (5.4%) were select very much so. Item fifteen was "I am relaxed" 5 (8.9%) were select not at all, 19 (33.9%) were respond as somewhat, 15 (26.8%) were moderately agreed, 17 (30.4%) were select very much so.

Item sixteen that was "I feel content" and 10 (17.9%) were select not at all, 21 (37.5%) were respond as somewhat, 14 (25%) were moderately agreed and only 11 (19.6%) were select very much so. Item seventeen was "I am worried" and 7 (12.5%) were go with not at all, 20 (35.7%) were respond as somewhat, 19 (33.9%) were moderately agreed and 10 (17.9%) were select very much so. Item eighteen was "I feel confused" 7 (12.5%) were select not at all, 17 (30.4%) were respond as somewhat, 22 (39.3%) were moderately agreed, 10 (17.9%) were select very much so.

Item nineteen was "I feel steady" and 12 (21.4%) were go with not at all, 23 (41.1%) were respond as somewhat, 14 (25%) were moderately agreed and 7 (12.5%) were select very much so. Item twenty was "I feel pleasant" 13 (23.2%) were select not at all, 17 (30.4%) were respond as somewhat, 15 (26.8%) were moderately agreed, 11 (19.6%) were select very much so.

State Anxiety Frequency
Table 3

Sr. No	Items	1 f%	2 f%	3 f%	4 f%
1.	I feel calm	11 19.6%	16 28.6%	22 39.3%	7 12.5%
2.	I feel secure	10 17.9%	19 33.9%	15 26.8%	12 21.4%
3.	I am tense	22 39.3%	20 35.7%	8 14.3%	6 10.7%
4.	I feel strained	5 8.9%	14 25%	26 46.4%	11 19.6%
5.	I feel at ease	10 17.9%	16 28.6%	19 33.9%	11 19.6%
6.	I feel upset	8 14.3%	22 39.3%	17 30.4%	9 16.1%
7.	I am presently worrying over possible misfortunes	15 26.8%	23 41.1%	13 23,2%	5 8.9%
8.	I feel satisfied	12 21.4%	19 33.9%	13 23,2%	12 21.4%
9.	I feel frightened	16 28.6%	20 35.7%	14 25%	6 10.7%
10.	I feel comfortable	7 12.5%	12 21.4%	27 48.2%	10 17.9%
11.	I feel self-confident	13 23,2%	15 26.8%	19 33.9%	9 16.1%
12.	I feel nervous	10 17.9%	14 25%	20 35.7%	12 21.4%
13.	I am jittery	10 17.9%	14 25%	16 28.6%	16 28.6%
14.	I feel indecisive	10 17.9%	17 30.4%	26 46.4%	3 5.4%

Sr. No	Items	1 f%	2 f%	3 f%	4 f%
15.	I am relaxed	5 8.9%	19 33.9%	15 26.8%	17 30.4%
16.	I feel content	10 17.9%	21 37.5%	14 25%	11 19.6%
17.	I am worried	7 12.5%	20 35.7%	19 33.9%	10 17.9%
18.	I feel confused	7 12.5%	17 30.4%	22 39.3%	10 17.9%
19.	I feel steady	12 21.4%	23 41.1%	14 25%	7 12.5%
20.	I feel pleasant	13 23.2%	17 30.4%	15 26.8%	11 19.6%

Not at all=1, Somewhat=2, Moderately so=3, Very much so=4

Figure 6 shows that the item one that was "I feel calm" and 11 (19.6%) were select not at all, 16 (28.6%) were respond as somewhat, 22 (39.3%) were moderately agreed and only 7 (12.5%) were select very much so.
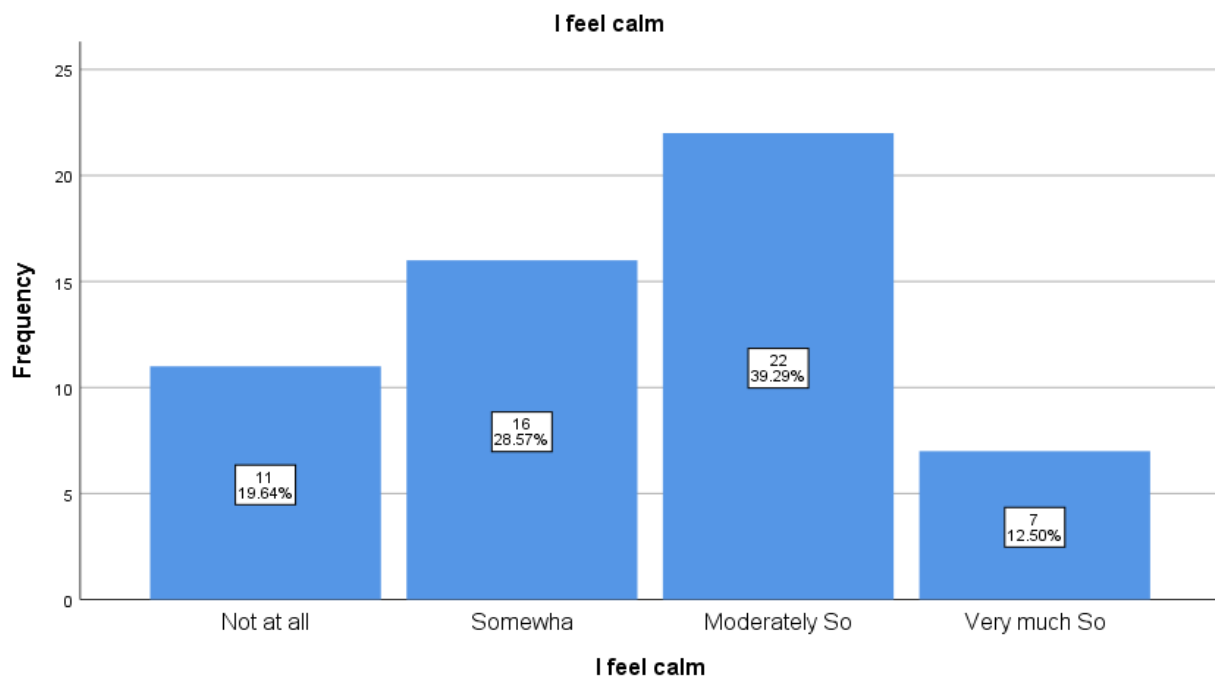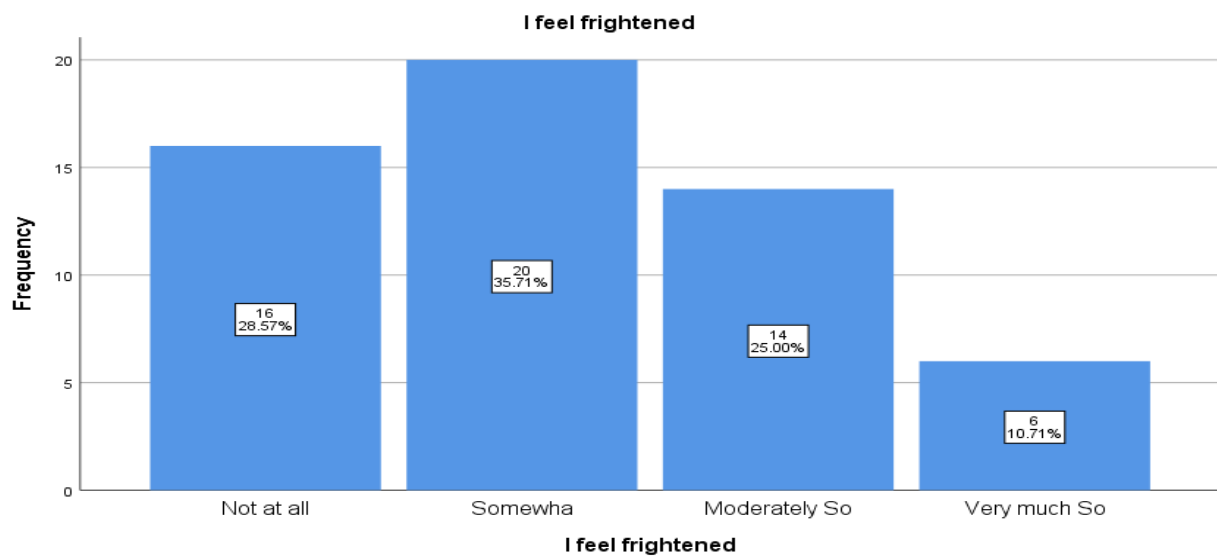

Figure 6

Figure 7 shows that the Item two was "I feel secure" and 10 (17.9%) were go with not at all, 19 (33.9%) were respond as somewhat, 15 (26.4%) were moderately agreed ad 12 (21.4%) were select very much so.
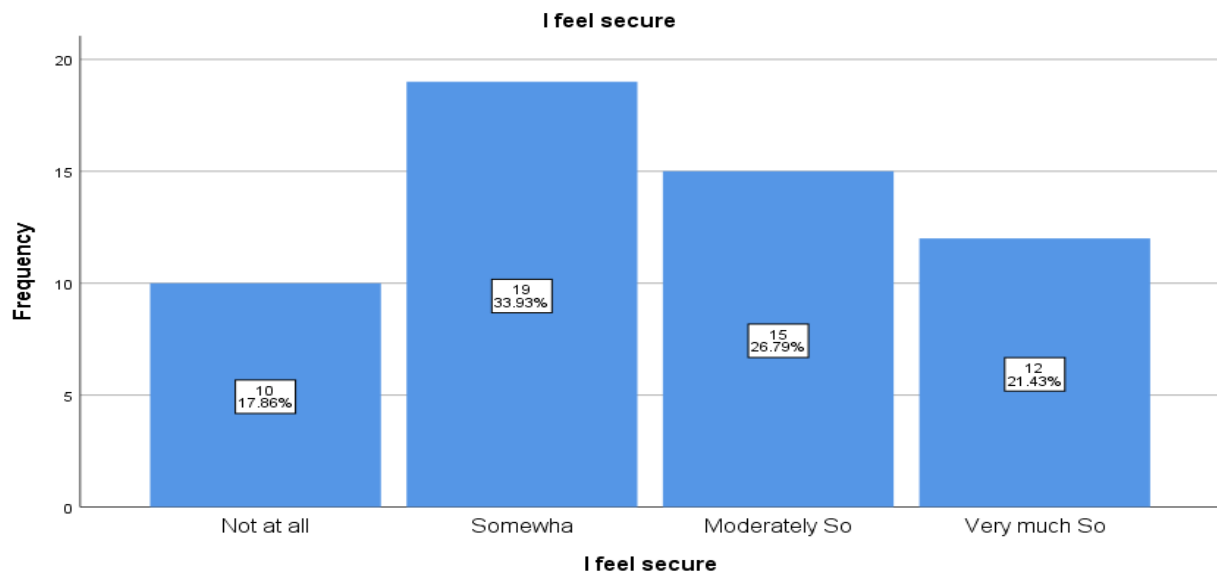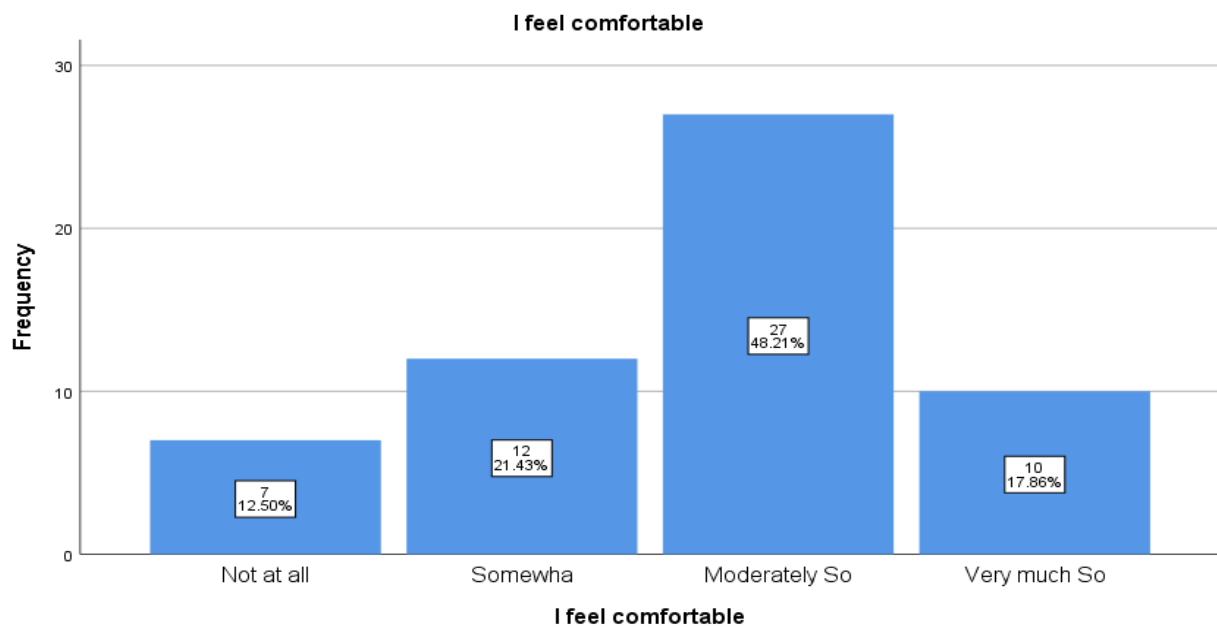
Figure 7

Figure 8 shows that the Item three was "I am tense" 22 (39.3%) were select not at all, 20 (35.7%) were respond as somewhat, 8 (14.3%) were moderately agreed, 6 (10.7%) were select very much so.
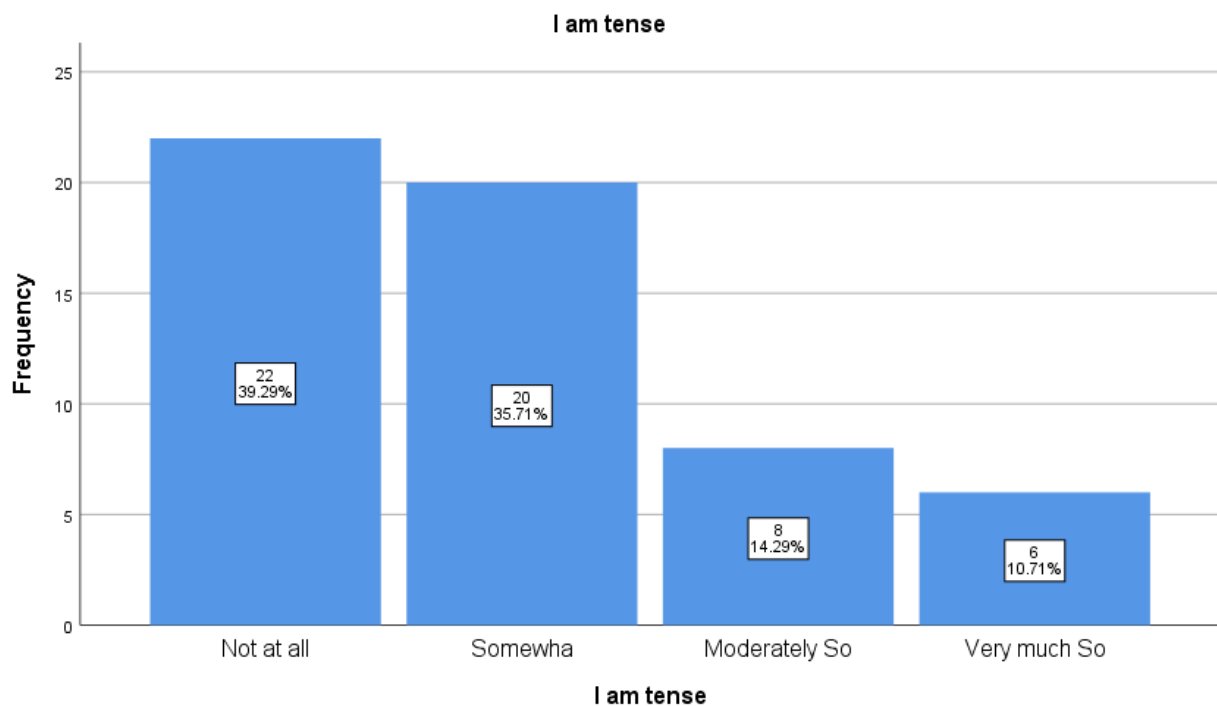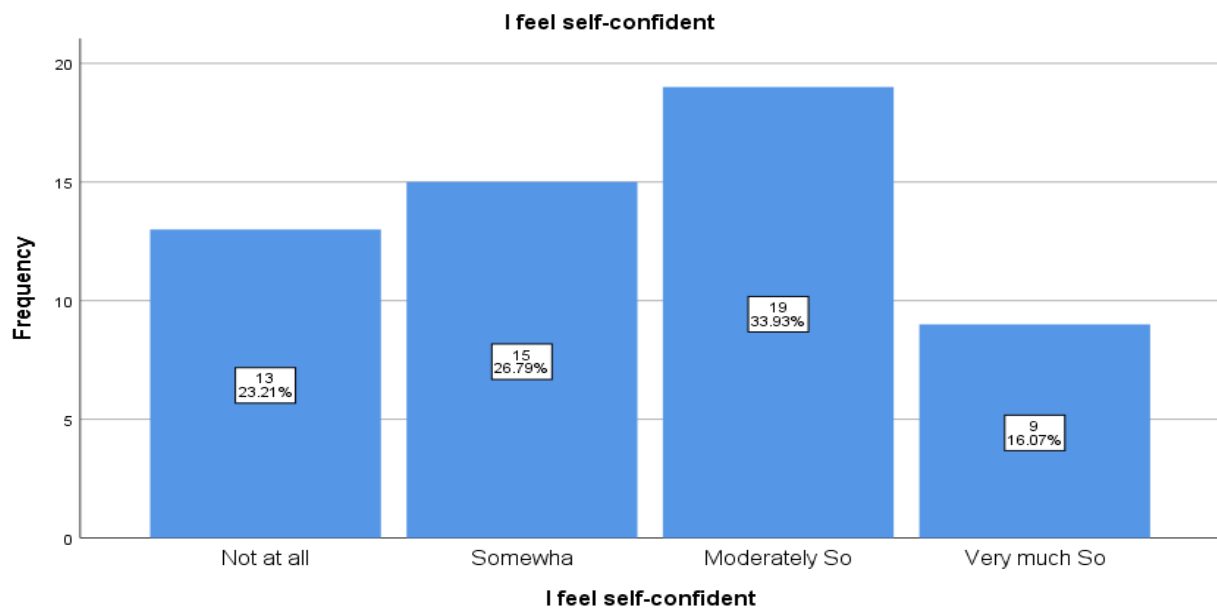

Figure 8

Figure 9 shows that the Item four that was "I feel strained" and 5 (8.9%) were select not at all, 14 (25%) were respond as somewhat, 26 (46.4%) were moderately agreed and only 11 (19.6%) were select very much so.
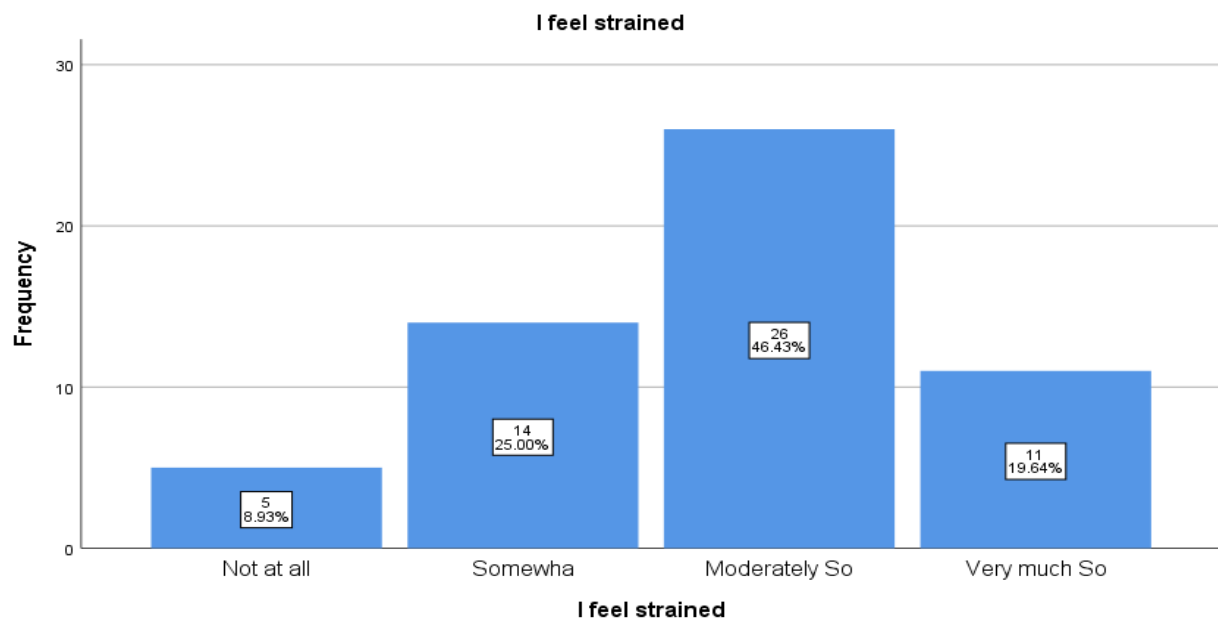
Figure 9

Figure 10 shows that the Item five was "I feel at ease" and 10 (17.9%) were go with not at all, 16 (28.6%) were respond as somewhat, 19 (33.9%) were moderately agreed and 11 (19.6%) were select very much so.
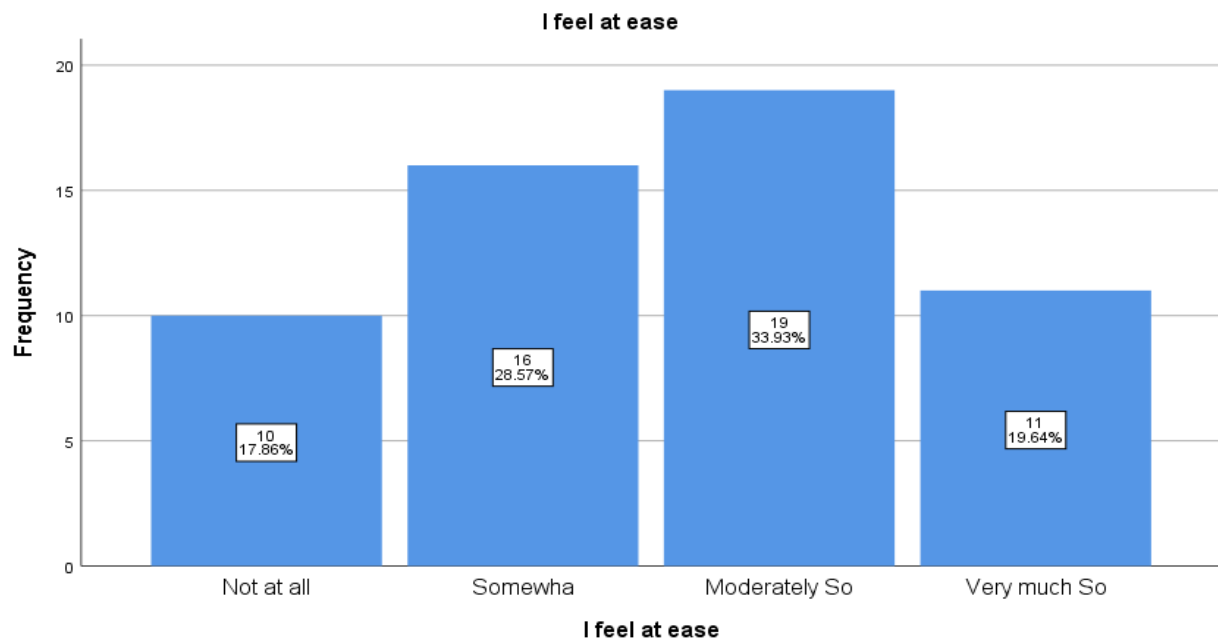
Figure 10

Figure 11 shows that the Item six was "I feel upset" 8 (14.3%) were select not at all, 22 (39.3%) were respond as somewhat, 17 (30.4%) were moderately agreed, 9 (16.1%) were select very much so.
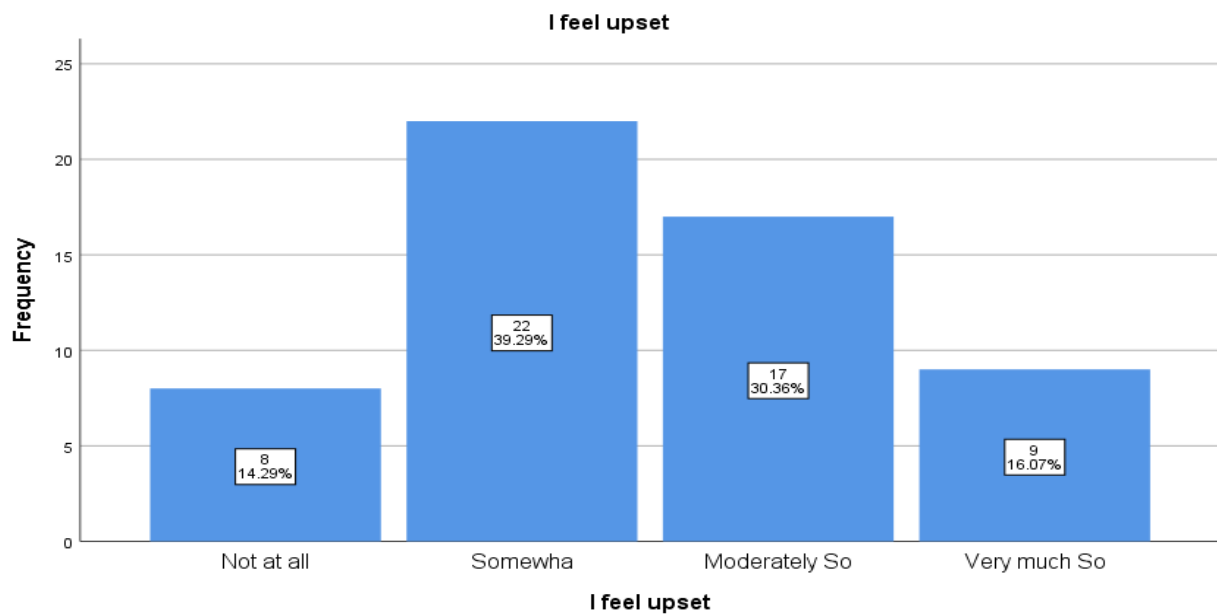
Figure 11

Figure 12 shows that the Item seven that was "I am presently worrying over possible misfortunes" and 15 (26.8%) were select not at all, 23 (41.1%) were respond as somewhat, 13 (23.2%) were moderately agreed and only 5 (8.9%) were select very much so.
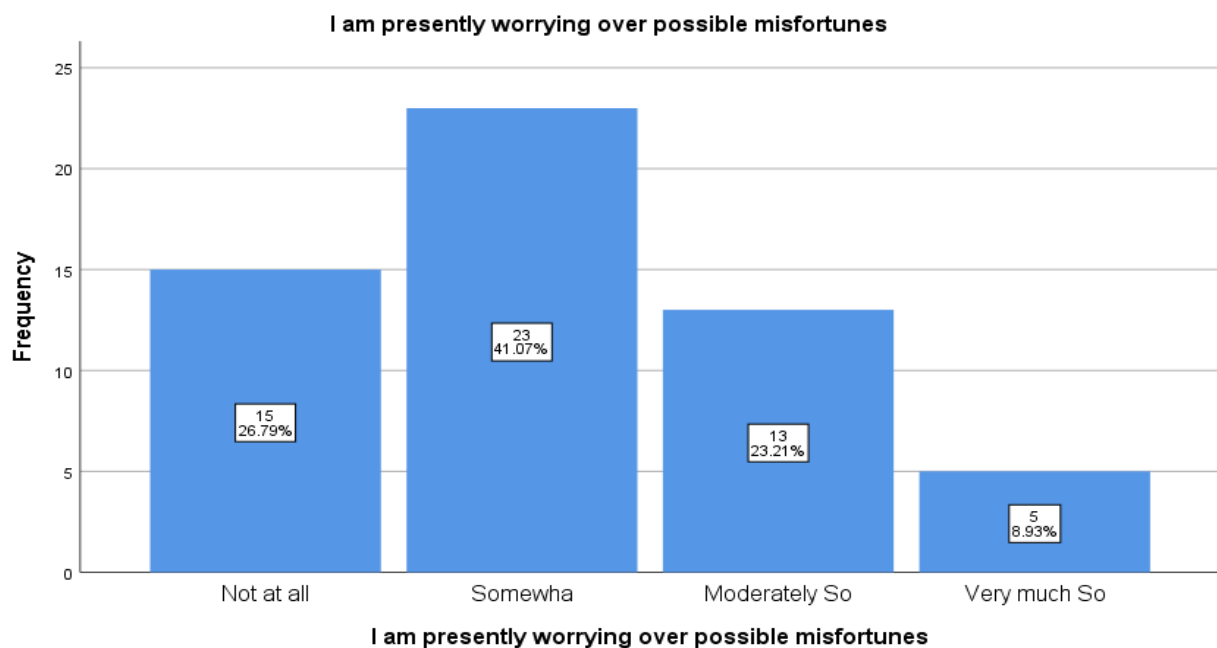
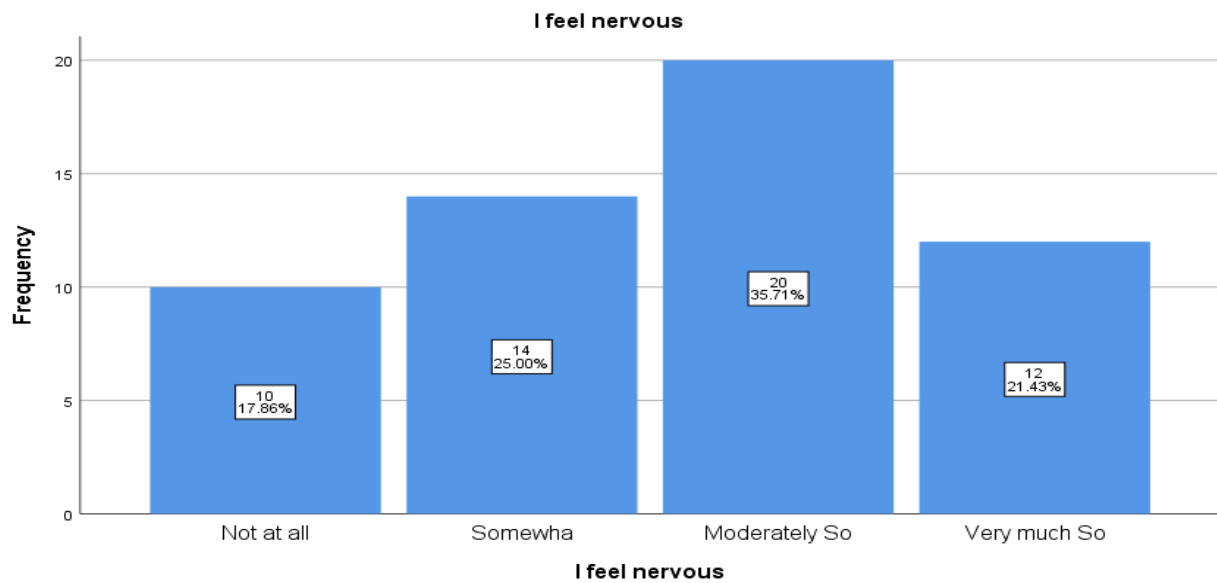
Figure 12

Figure 13 shows that the Item eight was "I feel satisfied" and 12 (21.4%) were go with not at all, 19 (33.9%) were respond as somewhat, 13 (23.2%) were moderately agreed and 12 (21.4%) were select very much so.
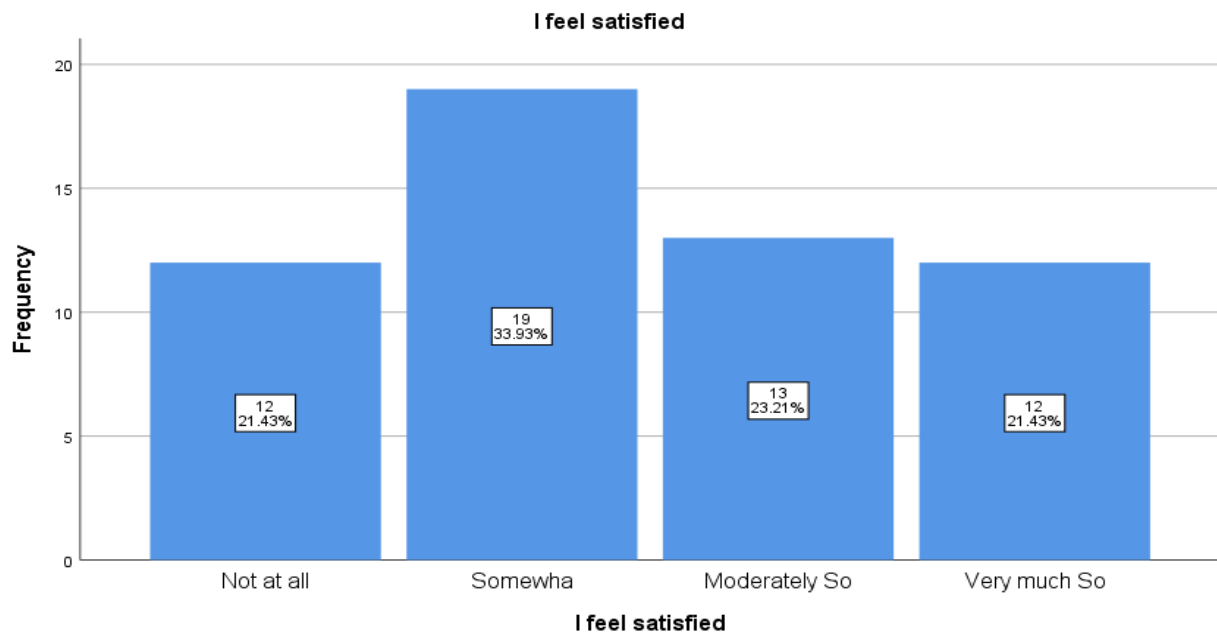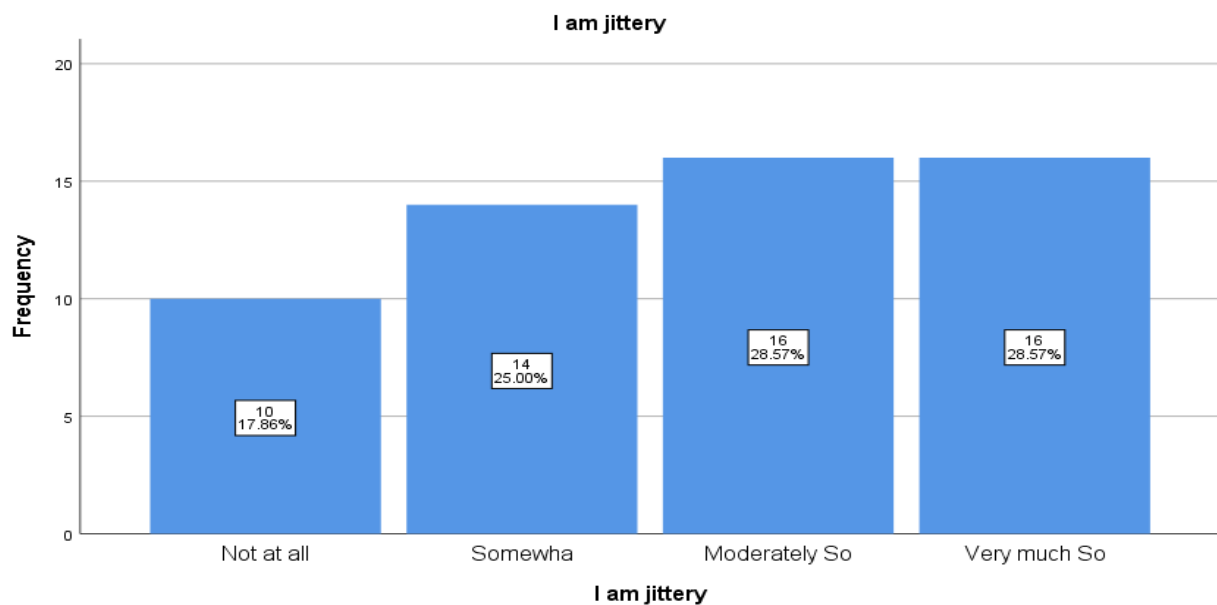
Figure 13

Figure 14 shows that the Item nine was "I feel frightened" 16 (28.6%) were select not at all, 20 (35.7%) were respond as somewhat, 14 (25%) were moderately agreed, 6 (10.7%) were select very much so.

Figure 14

Figure 15 shows that the Item ten that was "I feel comfortable" and 7 (12.5%) were select not at all, 12 (21.4%) were respond as somewhat, 27 (48.4%) were moderately agreed and only 10 (17.9%) were select very much so.

Figure 15

Figure 16 shows that the Item eleven was "I feel self-confident" and 13 (23.2%) were go with not at all, 15 (26.8%) were respond as somewhat, 19 (33.9%) were moderately agreed and 9 (16.1%) were select very much so.

Figure 16

Figure 17 shows that the Item twelve was "I feel self-confident" 10 (17.9%) were select not at all, 14 (25%) were respond as somewhat, 20 (35.7%) were moderately agreed, 12 (21.4%) were select very much so.
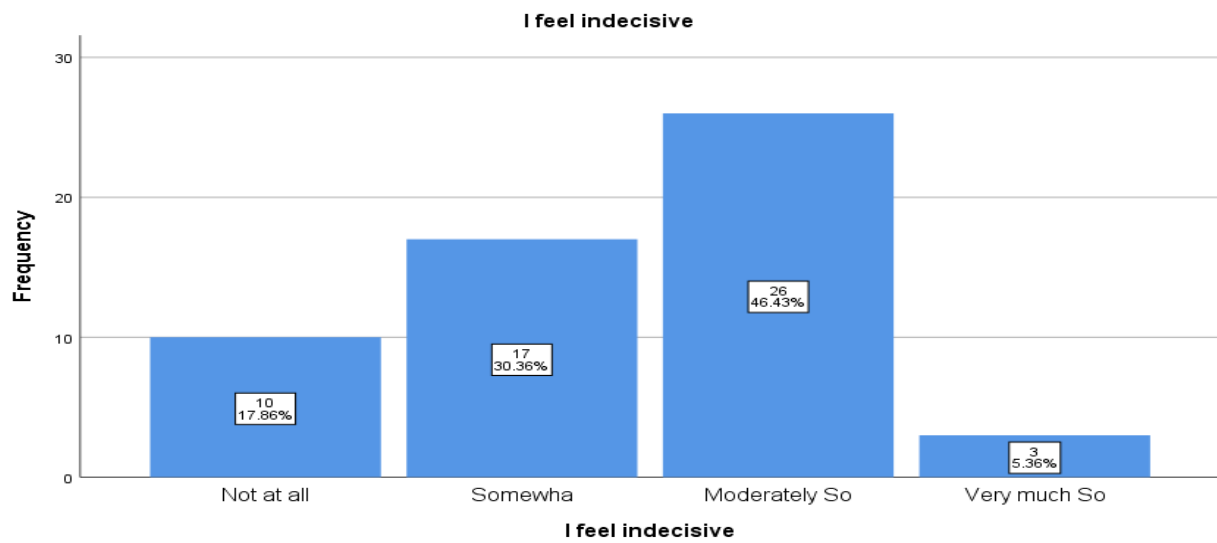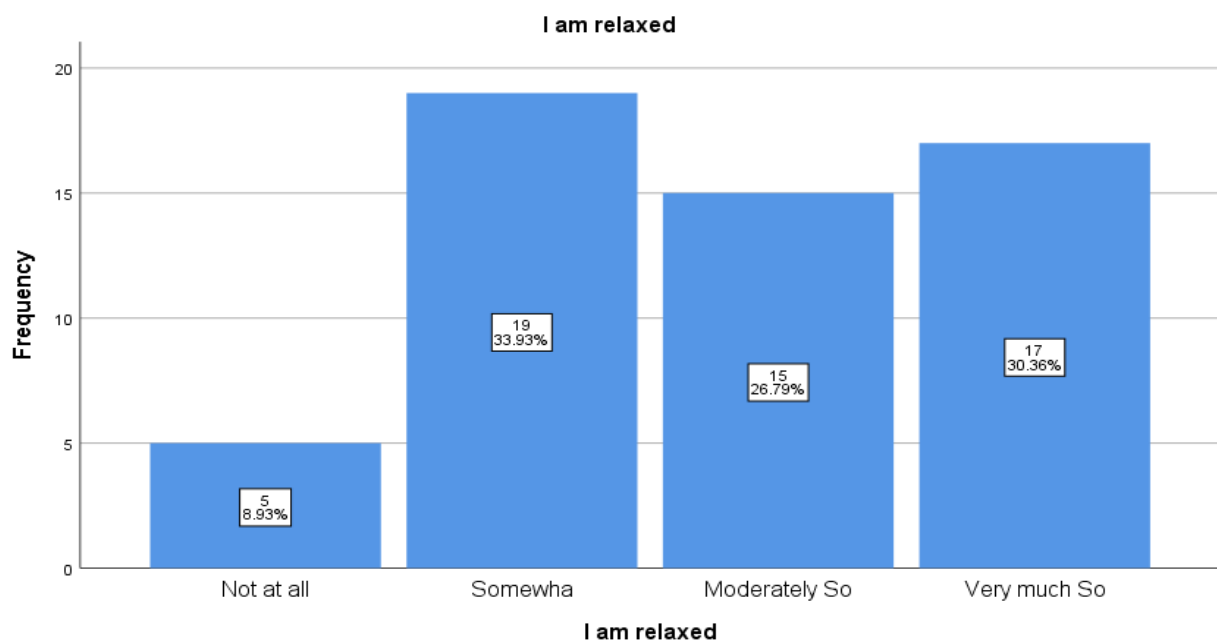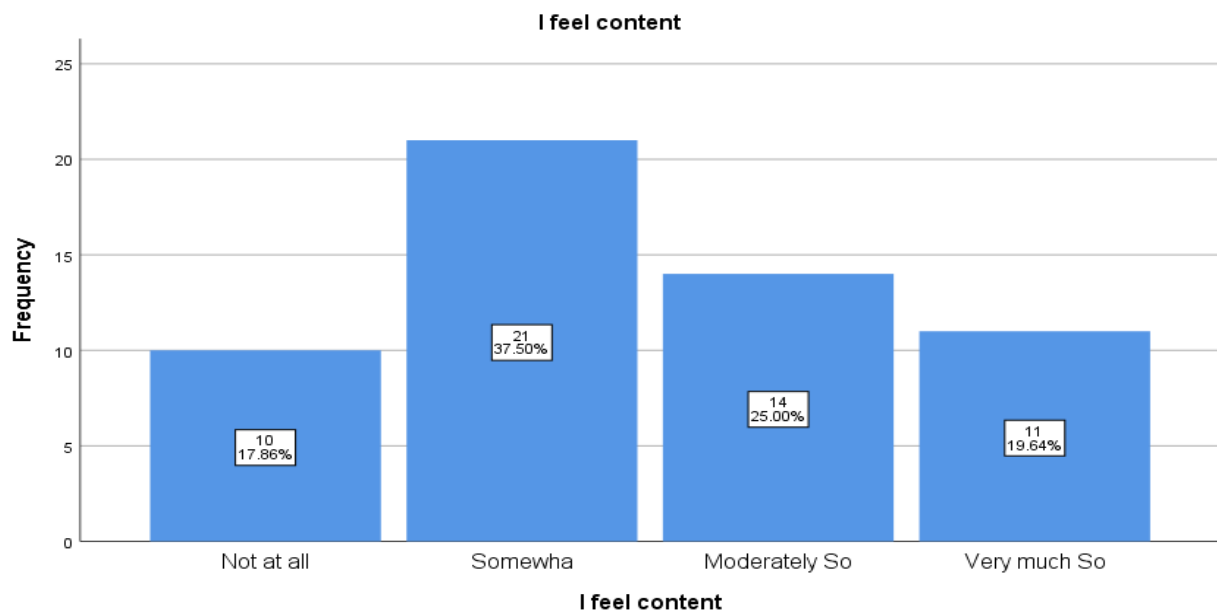
Figure 17

Figure 18 shows that the Item thirteen that was "I am jittery" and 10 (17.9%) were select not at all, 14 (25%) were respond as somewhat, 16 (28.6%) were moderately agreed and only 16 (28.6%) were select very much so.

Figure 18

Figure 19 shows that the Item fourteen was "I feel indecisive" and 10 (17.9%) were go with not at all, 17 (30.4%) were respond as somewhat, 26 (46.4%) were moderately agreed and 3 (5.4%) were select very much so.

Figure 19

Figure 20 shows that the Item fifteen was "I am relaxed" 5 (8.9%) were select not at all, 19 (33.9%) were respond as somewhat, 15 (26.8%) were moderately agreed, 17 (30.4%) were select very much so.
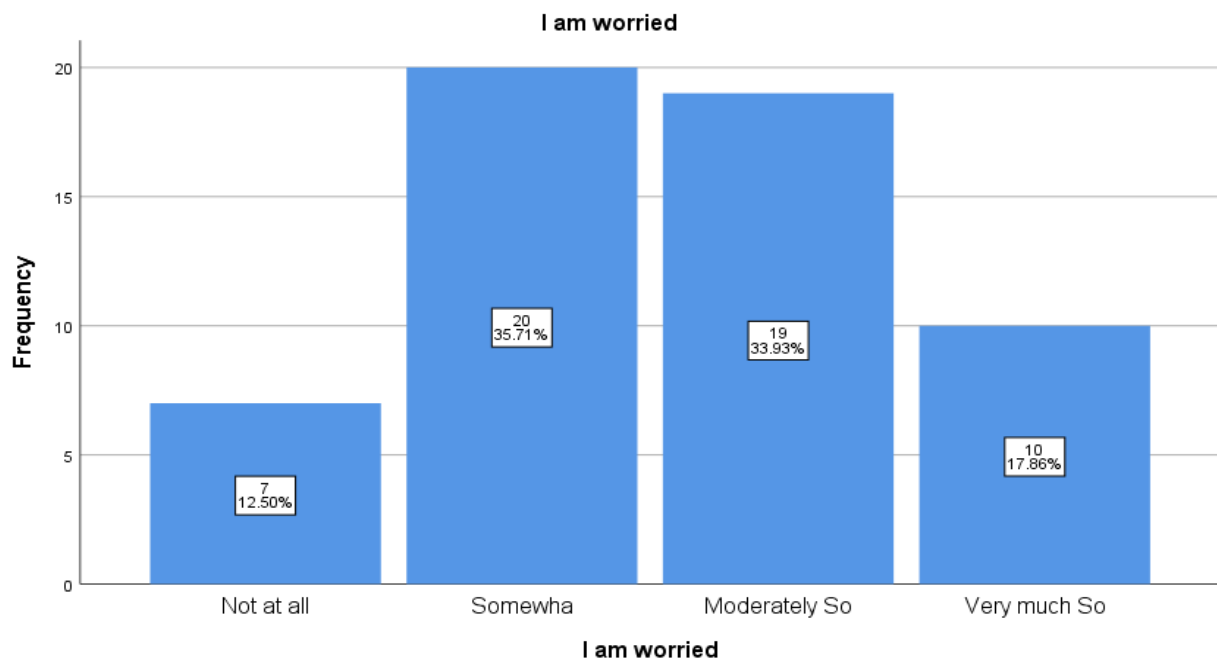

Figure 20

Figure 21 shows that the Item sixteen that was "I feel content" and 10 (17.9%) were select not at all, 21 (37.5%) were respond as somewhat, 14 (25%) were moderately agreed and only 11 (19.6%) were select very much so.
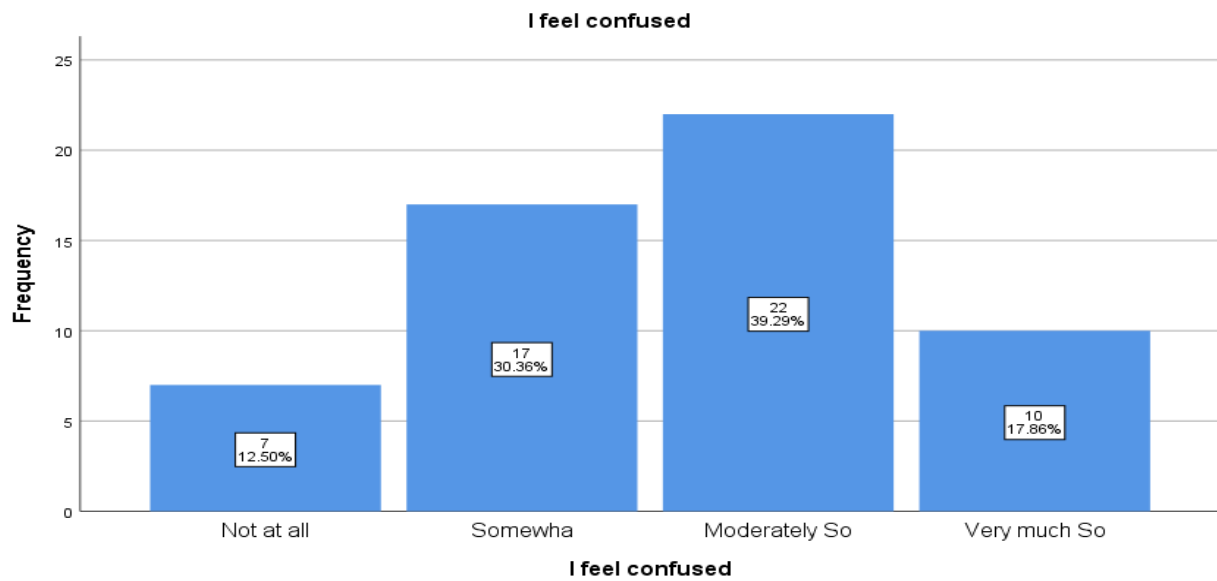
Figure 21

Figure 22 shows that the Item seventeen was "I am worried" and 7 (12.5%) were go with not at all, 20 (35.7%) were respond as somewhat, 19 (33.9%) were moderately agreed and 10 (17.9%) were select very much so.
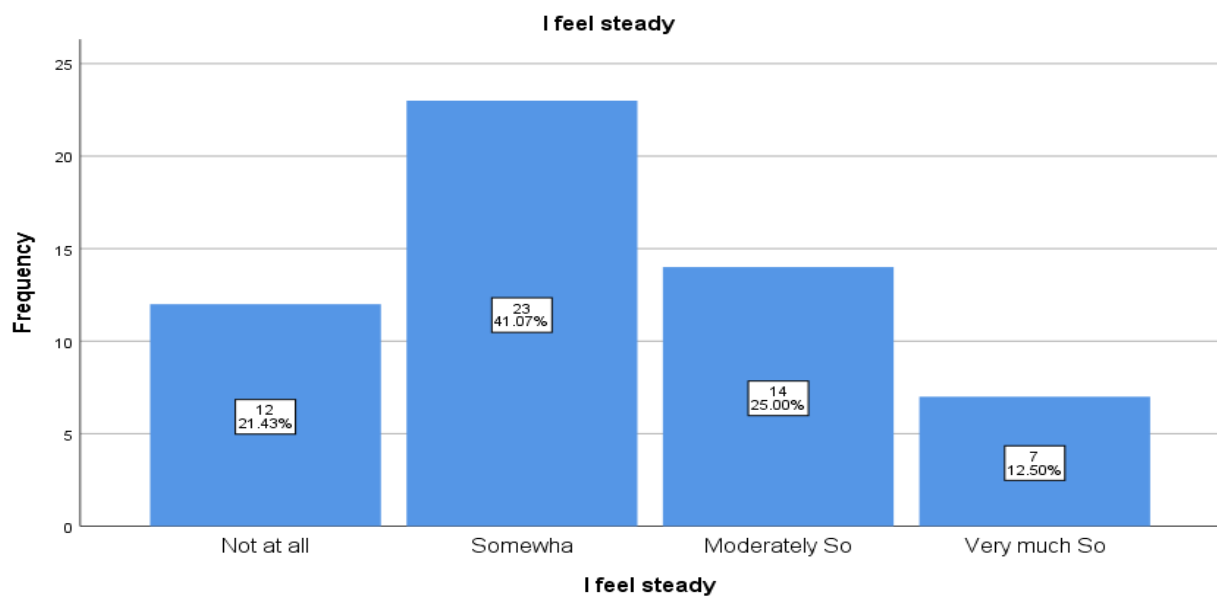

Figure 22

Figure 23 shows that the Item eighteen was "I feel confused" 7 (12.5%) were select not at all, 17 (30.4%) were respond as somewhat, 22 (39.3%) were moderately agreed, 10 (17.9%) were select very much so.
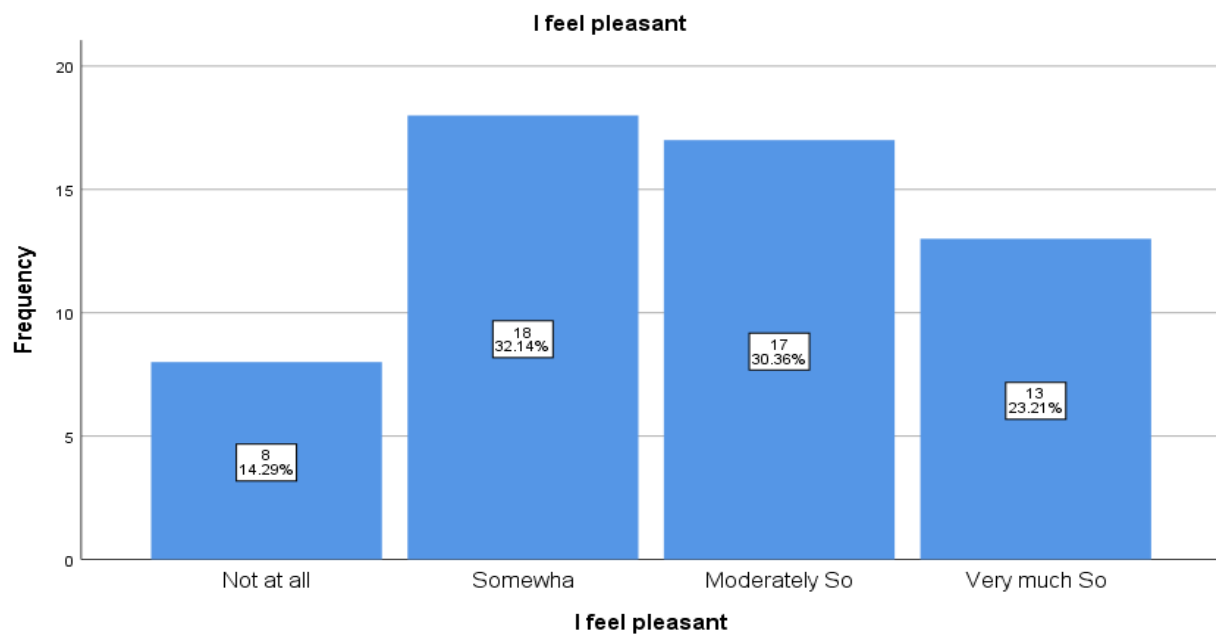
Figure 23

Figure 24 shows that the Item nineteen was "I feel steady" and 12 (21.4%) were go with not at all, 23 (41.1%) were respond as somewhat, 14 (25%) were moderately agreed and 7 (12.5%) were select very much so.

Figure 24

Figure 25 shows that the Item twenty was "I feel pleasant" 13 (23.2%) were select not at all, 17 (30.4%) were respond as somewhat, 15 (26.8%) were moderately agreed, 11 (19.6%) were select very much so.

Figure 25

Table 3 shows that the trait anxiety and results revealed that regarding item twenty-one, that was "I feel pleasant" 13 (23.2%) were go with almost never, 16 (28.6%) were select sometimes, 15 (26.8%) were agreed with often and 11 (19.6%) were select almost always. Item twenty-two was "I feel nervous and restless" 14 (25%) were go with almost never14 (25%) were select sometimes, 14 (25%) were agreed with often and 14 (25%) were select almost always. Item twenty-three was "I feel satisfied with myself" 9 (16.1%) were go with almost never, 8 (14.3%) were select sometimes, 17 (30.4%) were agreed with often and 12 (21.4%) were select almost always.

Item twenty-four was "I wish I could be as happy as others seem to be" 8 (14.3%) were go with almost never, 13 (23.2%) were select sometimes, 21 (37.5%) were agreed with often and 14 (25%) were select almost always. Item twenty-five was "I feel like a failure" 12 (21.4%) were go with almost never 22 (39.3%) were select sometimes, 15 (26.8%) were agreed with often and 7 (12.5%) were select almost always. Item twenty-six was "I feel rested" 6 (10.7%) were go with almost never, 16 (28.6%) were select sometimes, 17 (30.4%) were agreed with often and 17 (30.4%) were select almost always.

Item twenty-seven was "I am "calm, cool and collected" 9 (16.1%) were go with almost never, 17 (30.4%) were select sometimes, 18 (32.1%) were agreed with often and 12 (21.4%) were select almost always. Item twenty-eight was "I feel that difficulties are piling up so that I cannot overcome them" 3 (5.4%) were go with almost never, 16 (28.6%) were select sometimes, 29 (51.8%) were agreed with often and 8 (14.3%) were select almost always. Item twenty-nine was "I worry too much over something that really doesn't matter" 6 (10.7%) were go with almost never, 18 (32.1%) were select sometimes, 20 (35.7%) were agreed with often and 12 (21.4%) were select almost always.

Item thirty was "I am happy" 10 (17.9%) were go with almost never, 23 (41.1%) were select sometimes, 21 (37.5%) were agreed with often and 2 (3.6%) were select almost always. Item thirty-one was "I have disturbing thoughts" 1 (1.8%) were go with almost never, 15 (26.8%) were select sometimes, 27 (48.2%) were agreed with often and 13 (23.2%) were select almost always. Item thirty-two was "I lack self-confidence" 7 (12.5%) were go with almost never, 12 (21.4%) were select sometimes, 22 (39.3%) were agreed with often and 15 (26.8%) were select almost always. Item thirty-three was "I feel secure" 10 (17.9%) were go with almost never, 12 (21.4%) were select sometimes, 24 (42.9%) were agreed with often and 10 (17.9%) were select almost always.

Item thirty-four was "I make decisions easily" 10 (17.9%) were go with almost never, 16 (28.6%) were select sometimes, 20 (35.7%) were agreed with often and 10 (17.9%) were select almost always. Item thirty-five was "I feel inadequate" 8 (14.3%) were go with almost never, 16 (28.6%) were select sometimes, 19 (33.9%) were agreed with often and 13 (23.2%) were select almost always. Item thirty-six was "I am content" 7 (12.5%) were go with almost never, 21 (37.5%) were select sometimes, 19 (33.9%) were agreed with often and 9 (16.1%) were select almost always. Item thirty-seven was "Some unimportant thought runs through my mind and bothers me" 16 (28.6%) were go with almost never, 17 (30.4%) were select sometimes, 22 (39.3%) were agreed with often and 9 (16.1%) were select almost always.

Item thirty-eight was "I take disappointments so keenly that I can't put them out of my mind" 8 (14.3%) were go with almost never, 17 (30.4%) were select sometimes, 22 (39.3%) were agreed with often and 9 (16.1%) were select almost always. Item thirty-nine was "I am a steady person" 6 (10.7%) were go with almost never, 17
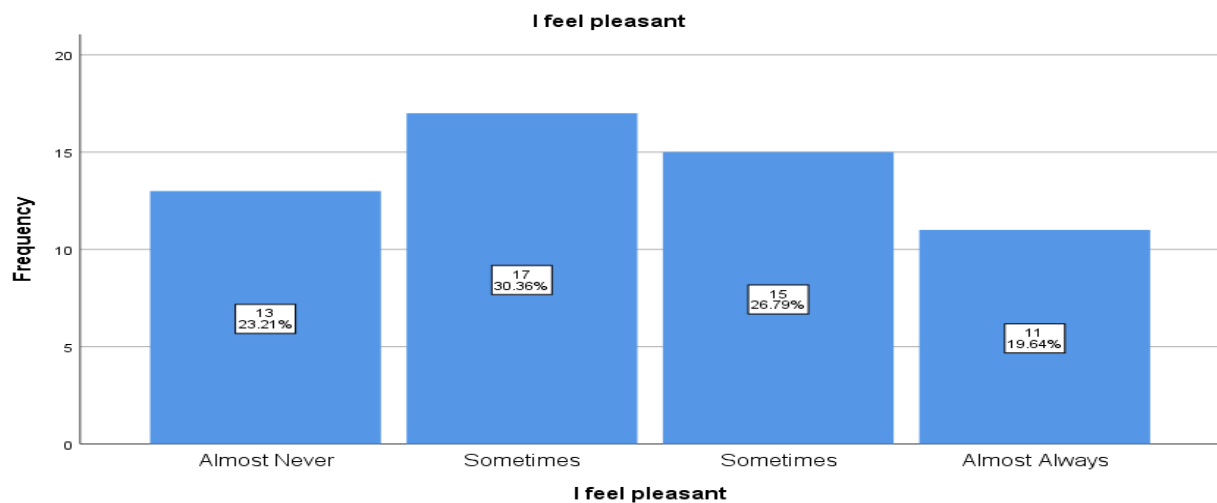
(30.4%) were select sometimes, 26 (46.4%) were agreed with often and 7 (12.5%) were select almost always. Item forty was "I get in a state of tension or turmoil as I think over my recent concerns and interests" 10 (17.9%) were go with almost never, 18 (32.1%) were select sometimes, 19 (33.9%) were agreed with often and 9 (16.1%) were select almost always.

Trait Anxiety Frequency

Table 4

Sr. No	Items	1 f%	2 f%	3 f%	4 f%
21.	I feel pleasant	13 23,2%	16 28.6%	15 26.8%	11 19.6%
22.	I feel nervous and restless	14 25%	14 25%	14 25%	14 25%
23.	I feel satisfied with myself	9 16.1%	8 14.3%	17 30.4%	12 21.4%
24.	I wish I could be as happy as others seem to be	8 14.3%	13 23.2%	21 37.5%	14 25%
25.	I feel like a failure	12 21.4%	22 39.3%	15 26.8%	7 12.5%
26.	I feel rested	6 10.7%	16 28.6%	17 30.4%	17 30.4%
27.	I am "calm, cool and collected"	9 16.1%	17 30.4%	18 32.1%	12 21.4%
28.	I feel that difficulties are piling up so that I cannot overcome them	3 5.4%	16 28.6%	29 51.8%	8 14.3%
29.	I worry too much over something that really doesn't matter	6 10.7%	18 32.1%	20 35.7%	12 21.4%
30.	I am happy	10 17.9%	23 41.1%	21 37.5%	2 3.6%
31.	I have disturbing thoughts	1 1.8%	15 26.8%	27 48.2%	13 23,2%
32.	I lack self-confidence	7 12.5%	12 21.4%	22 39.3%	15 26.8%
33.	I feel secure	10 17.9%	12 21.4%	24 42.9%	10 17.9%
34.	I make decisions easily	10 17.9%	16 28.6%	20 35.7%	10 17.9%
35.	I feel inadequate	8 14.3%	16 28.6%	19 33.9%	13 23,2%
36.	I am content	7 12.5%	21 37.5%	19 33.9%	9 16.1%
37.	Some unimportant thought runs through my mind and bothers me	16 28.6%	17 30.4%	17 30.4%	6 10.7%
38.	I take disappointments so keenly that I can't put them out of my mind	8 14.3%	17 30.4%	22 39.3%	9 16.1%
39.	I am a steady person	6 10.7%	17 30.4%	26 46.4%	7 12.5%
40.	I get in a state of tension or turmoil as I think over my recent concerns and interests	10 17.9%	18 32.1%	19 33.9%	9 16.1%

Almost Never =1, Sometimes =2 Often=3, Almost Always =4

Figure 26 shows that the item twenty-one was "I feel pleasant" 13 (23.2%) were go with almost never, 16 (28.6%) were select sometimes, 15 (26.8%) were agreed with often and 11 (19.6%) were select almost always.
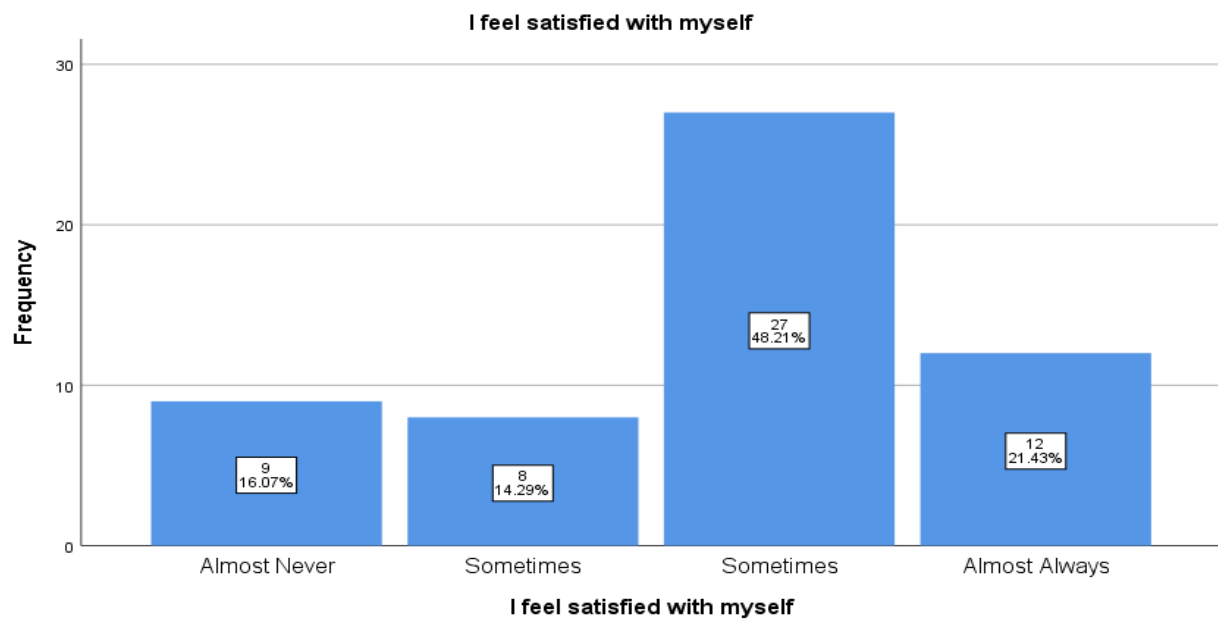
Figure 26

Figure 27 shows that the Item twenty-two was "I feel nervous and restless" 14 (25%) were go with almost never14 (25%) were select sometimes, 14 (25%) were agreed with often and 14 (25%) were select almost always.
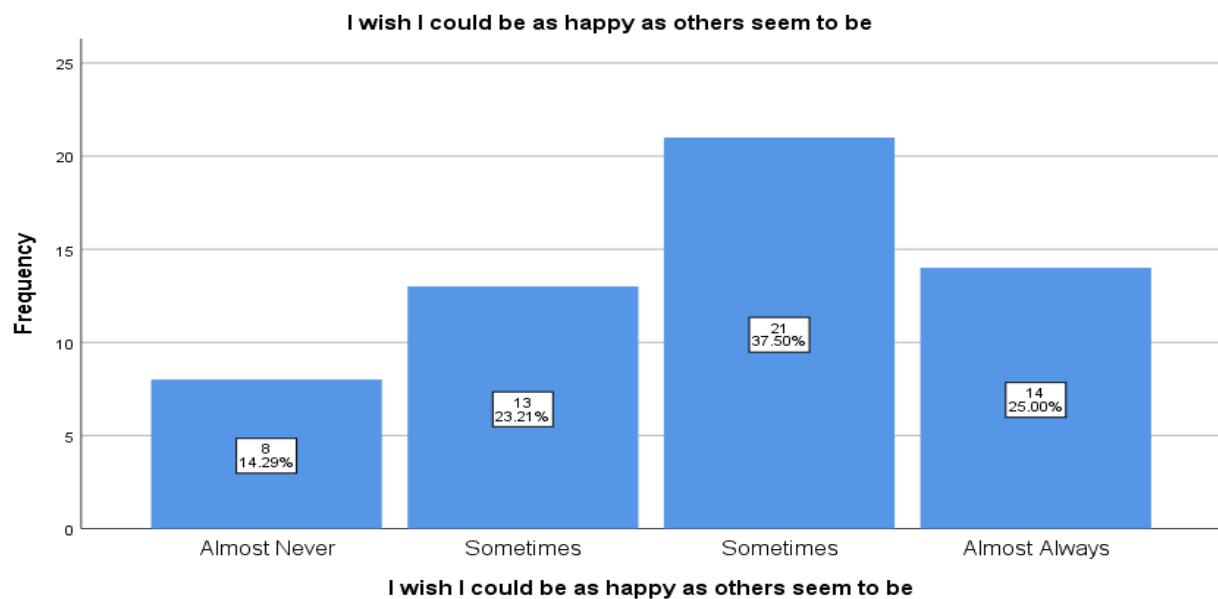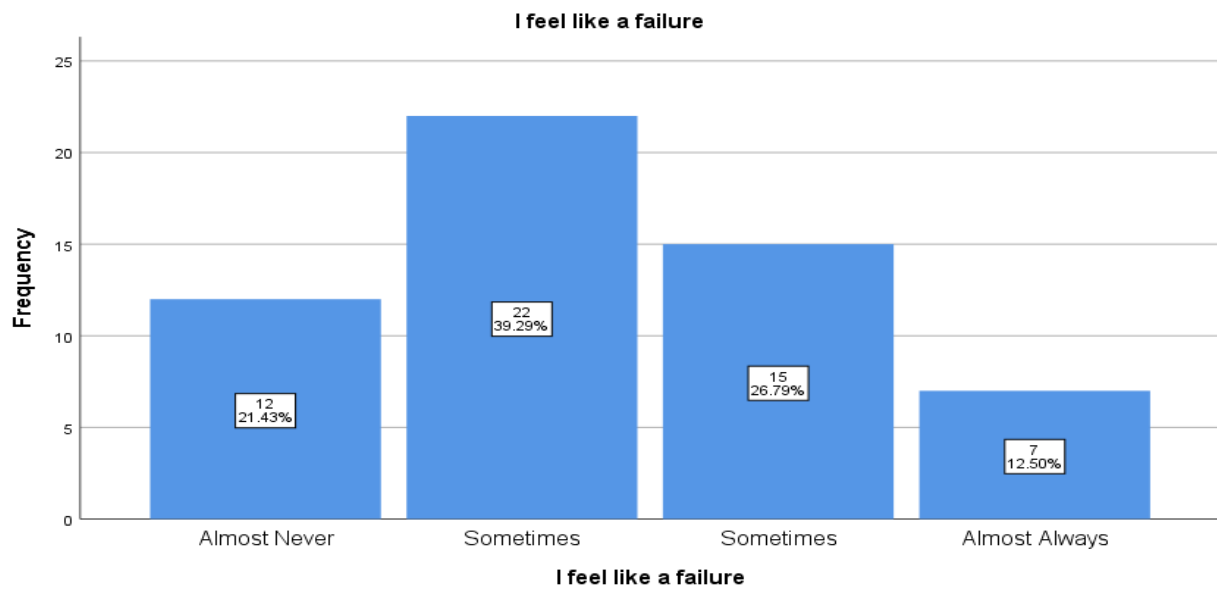

Figure 27

Figure 28 shows that the Item twenty-three was "I feel satisfied with myself" 9 (16.1%) were go with almost never, 8 (14.3%) were select sometimes, 17 (30.4%) were agreed with often and 12 (21.4%) were select almost always.

I feel satisfied with myself

Figure 28

Figure 29 shows that the Item twenty-four was "I wish I could be as happy as others seem to be" 8 (14.3%) were go with almost never, 13 (23.2%) were select sometimes, 21 (37.5%) were agreed with often and 14 (25%) were select almost always.

I wish I could be as happy as others seem to be

Figure 29

Figure 30 shows that the Item twenty-five was "I feel like a failure" 12 (21.4%) were go with almost never 22 (39.3%) were select sometimes, 15 (26.8%) were agreed with often and 7 (12.5%) were select almost always.
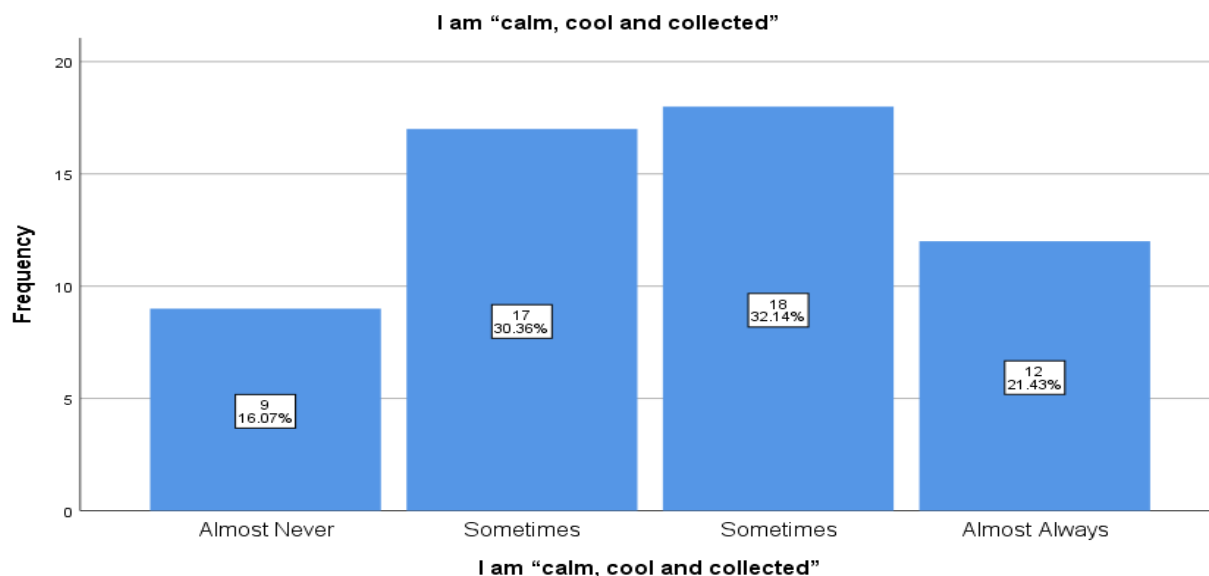
I feel like a failure

Figure 30

Figure 31 shows that the Item twenty-six was "I feel rested" 6 (10.7%) were go with almost never, 16 (28.6%) were select sometimes, 17 (30.4%) were agreed with often and 17 (30.4%) were select almost always.

I feel rested
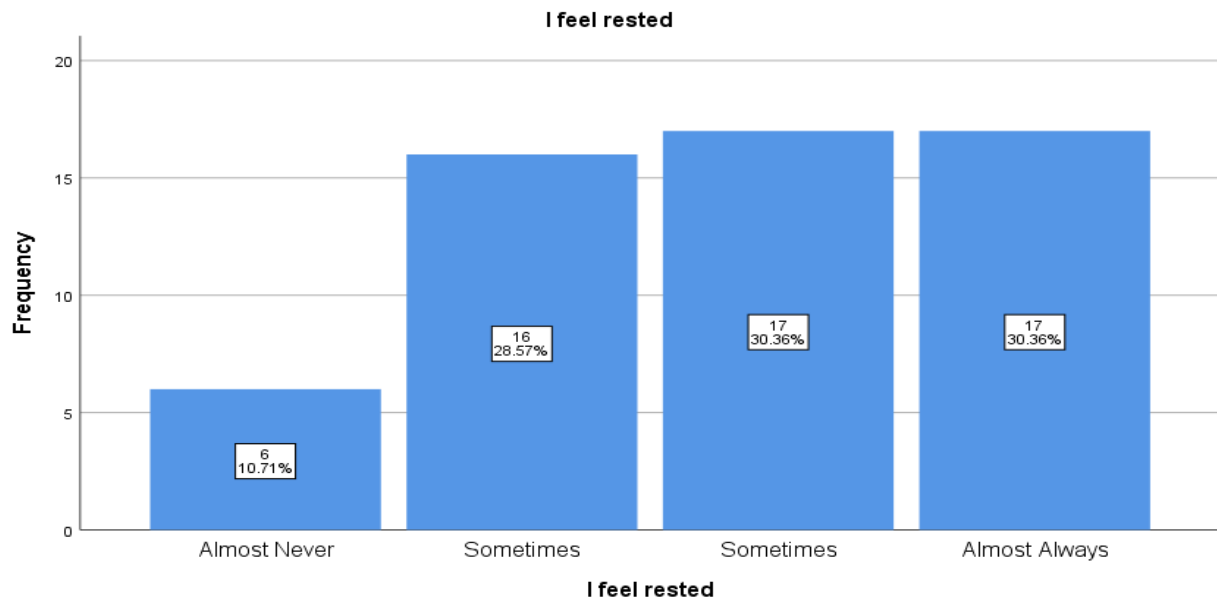
Figure 31

Figure 32 shows that the Item twenty-seven was "I am "calm, cool and collected" 9 (16.1%) were go with almost never, 17 (30.4%) were select sometimes, 18 (32.1%) were agreed with often and 12 (21.4%) were select almost always.
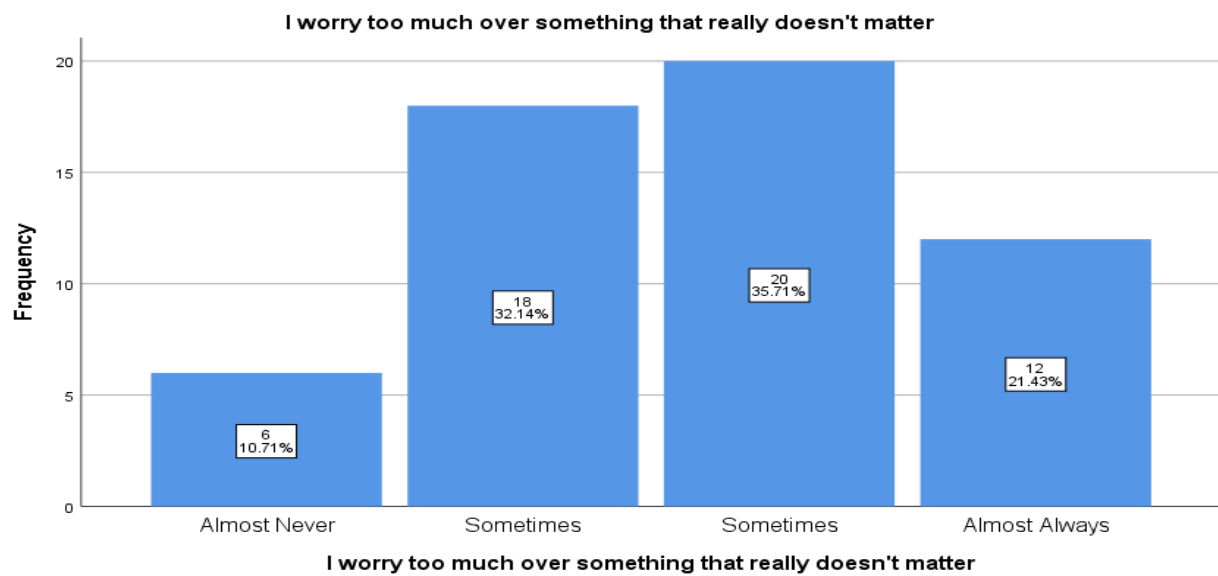
Figure 32

Figure 33 shows that the Item twenty-eight was "I feel that difficulties are piling up so that I cannot overcome them" 3 (5.4%) were go with almost never, 16 (28.6%) were select sometimes, 29 (51.8%) were agreed with often and 8 (14.3%) were select almost always.
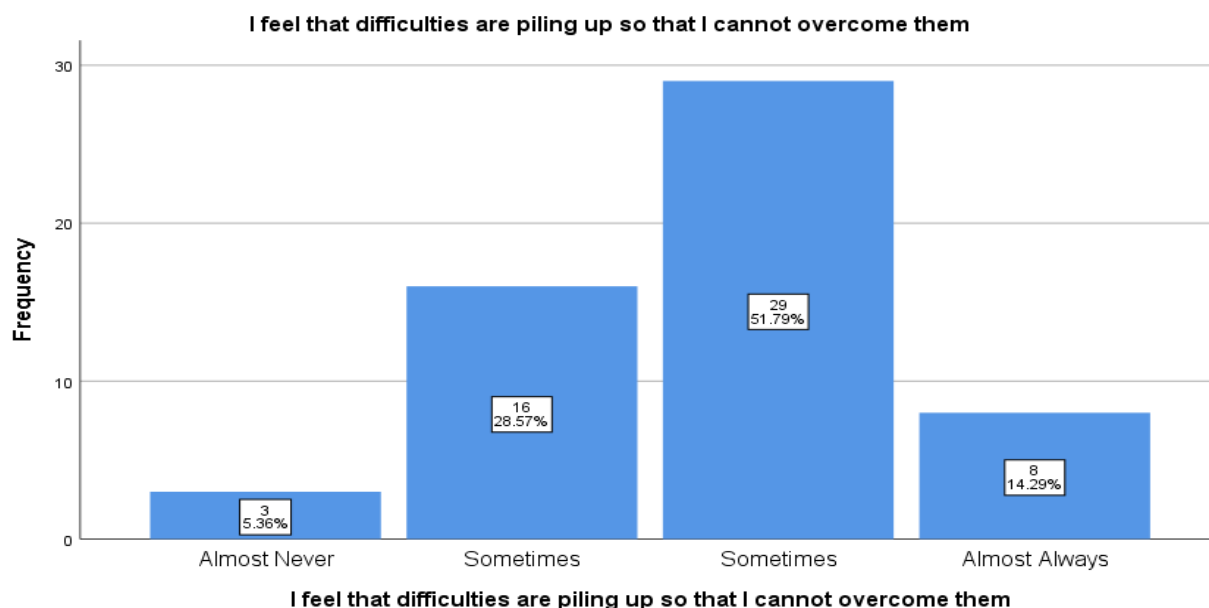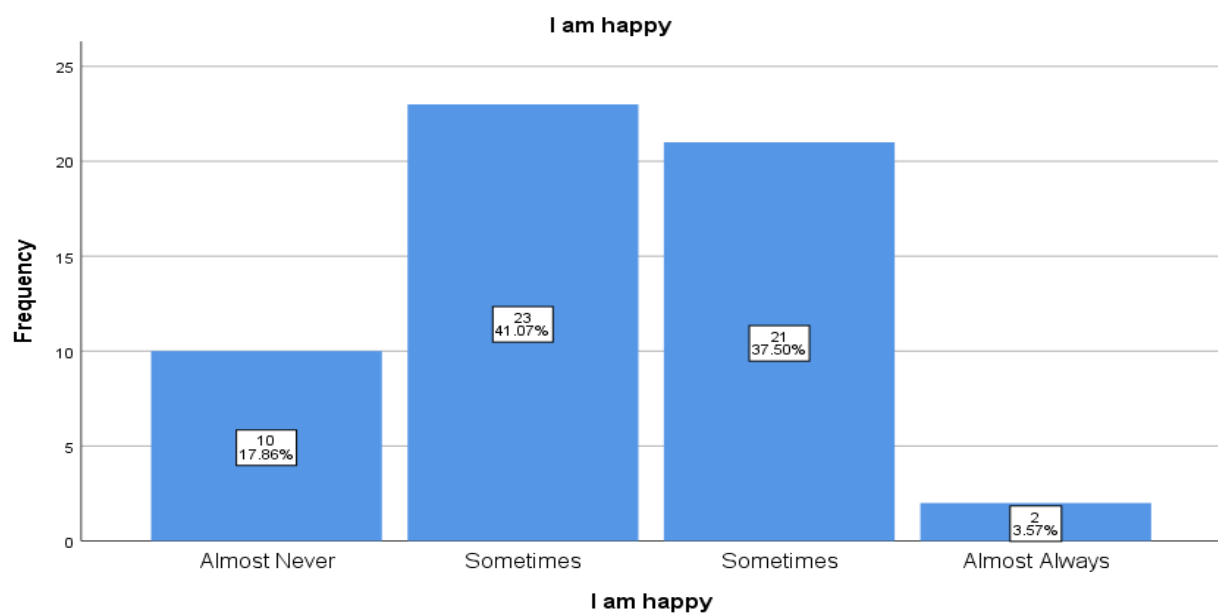

Figure 33

Figure 34 shows that the Item twenty-nine was "I worry too much over something that really doesn't matter" 6 (10.7%) were go with almost never, 18 (32.1%) were select sometimes, 20 (35.7%) were agreed with often and 12 (21.4%) were select almost always.
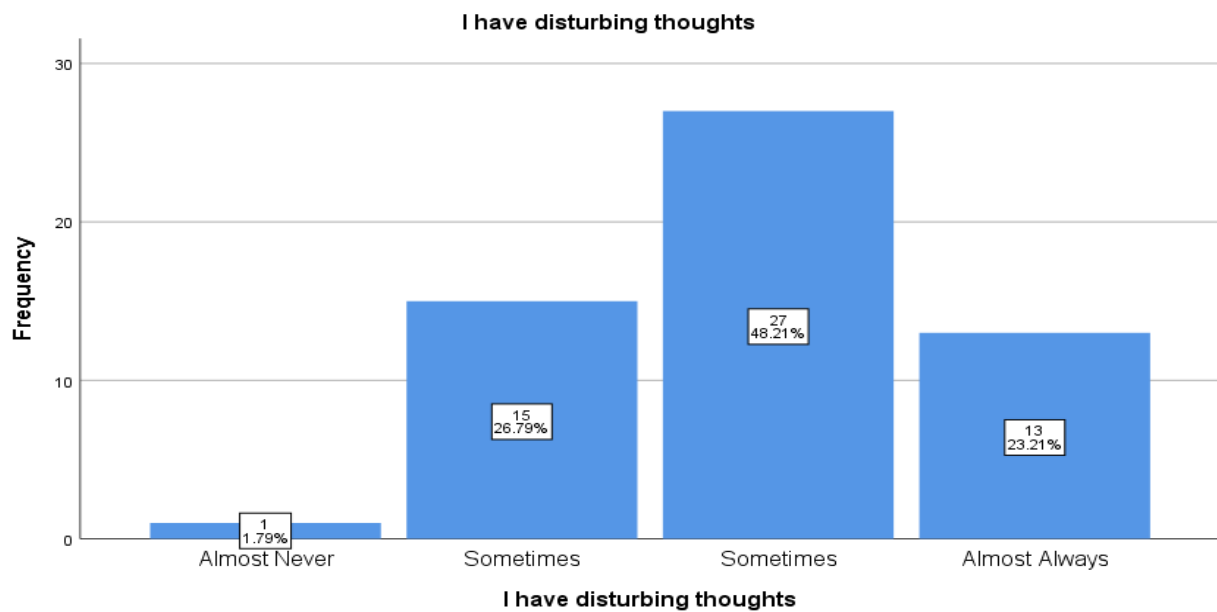
Figure 34

Figure 35 shows that the Item thirty was "I am happy" 10 (17.9%) were go with almost never, 23 (41.1%) were select sometimes, 21 (37.5%) were agreed with often and 2 (3.6%) were select almost always.
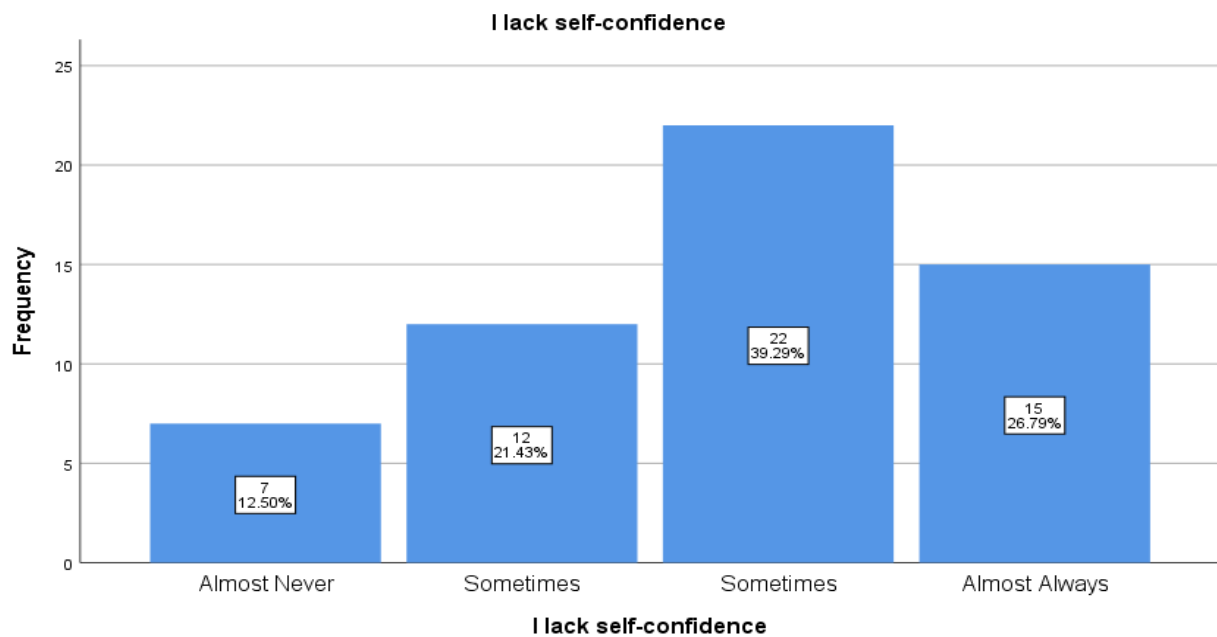

Figure 35

Figure 36 shows that the Item thirty-one was "I have disturbing thoughts" 1 (1.8%) were go with almost never, 15 (26.8%) were select sometimes, 27 (48.2%) were agreed with often and 13 (23.2%) were select almost always.
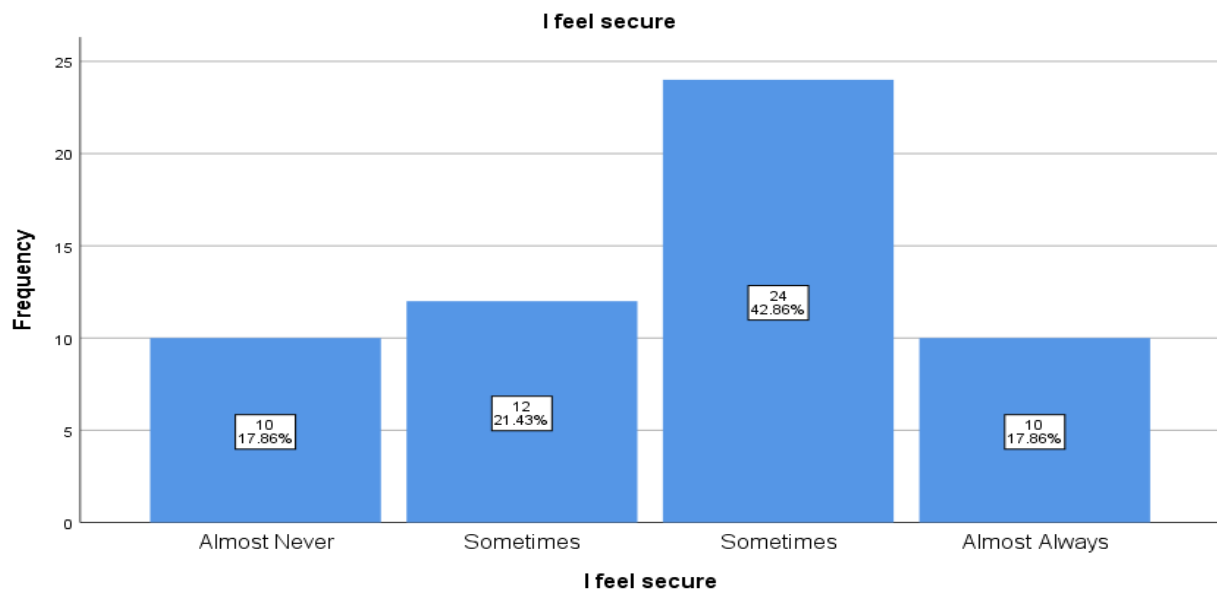
Figure 36

Figure 37 shows that the Item thirty-two was "I lack self-confidence" 7 (12.5%) were go with almost never, 12 (21.4%) were select sometimes, 22 (39.3%) were agreed with often and 15 (26.8%) were select almost always.
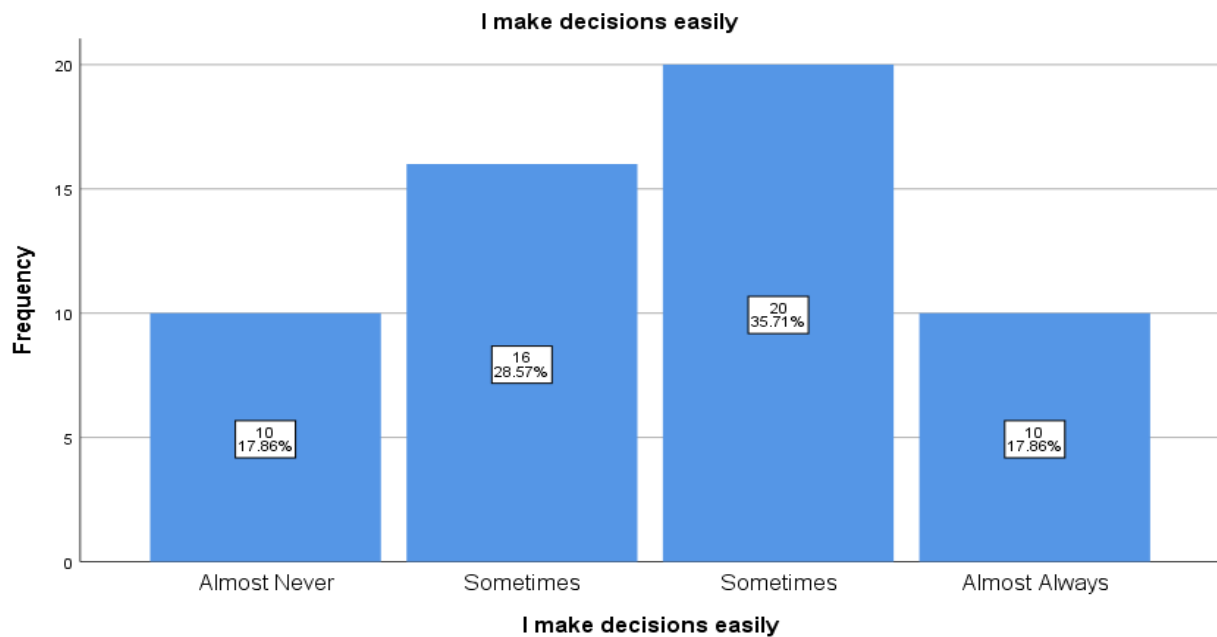

Figure 37

Figure 38 shows that the Item thirty-three was "I feel secure" 10 (17.9%) were go with almost never, 12 (21.4%) were select sometimes, 24 (42.9%) were agreed with often and 10 (17.9%) were select almost always.
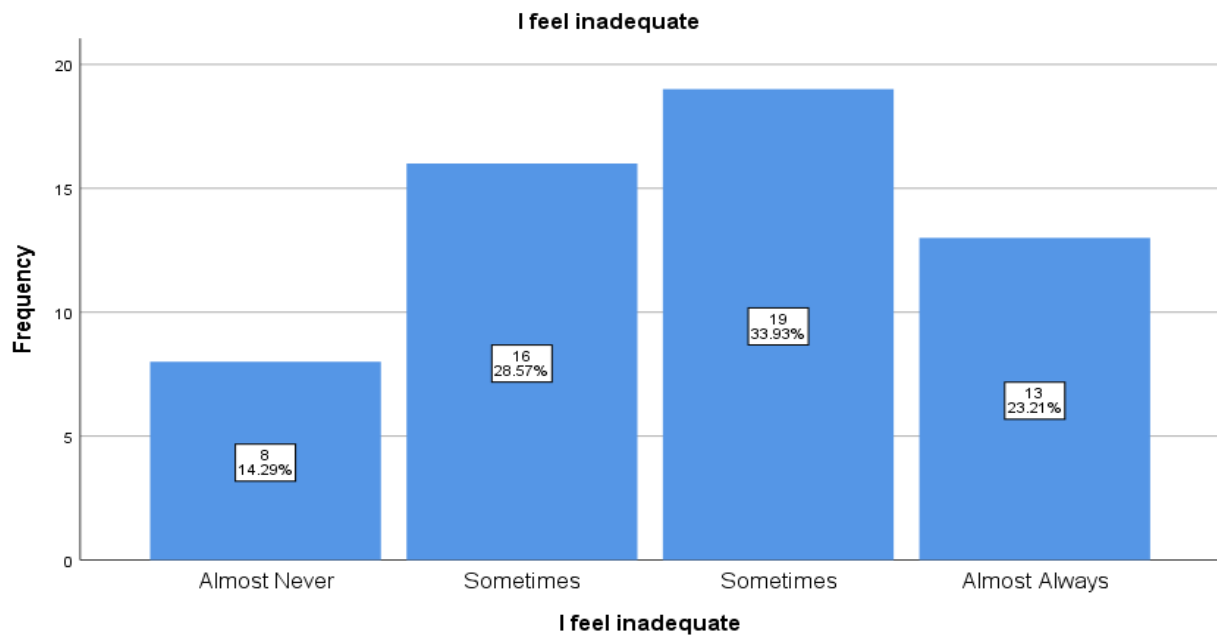
Figure 38

Figure 39 shows that the Item thirty-four was "I make decisions easily" 10 (17.9%) were go with almost never, 16 (28.6%) were select sometimes, 20 (35.7%) were agreed with often and 10 (17.9%) were select almost always.
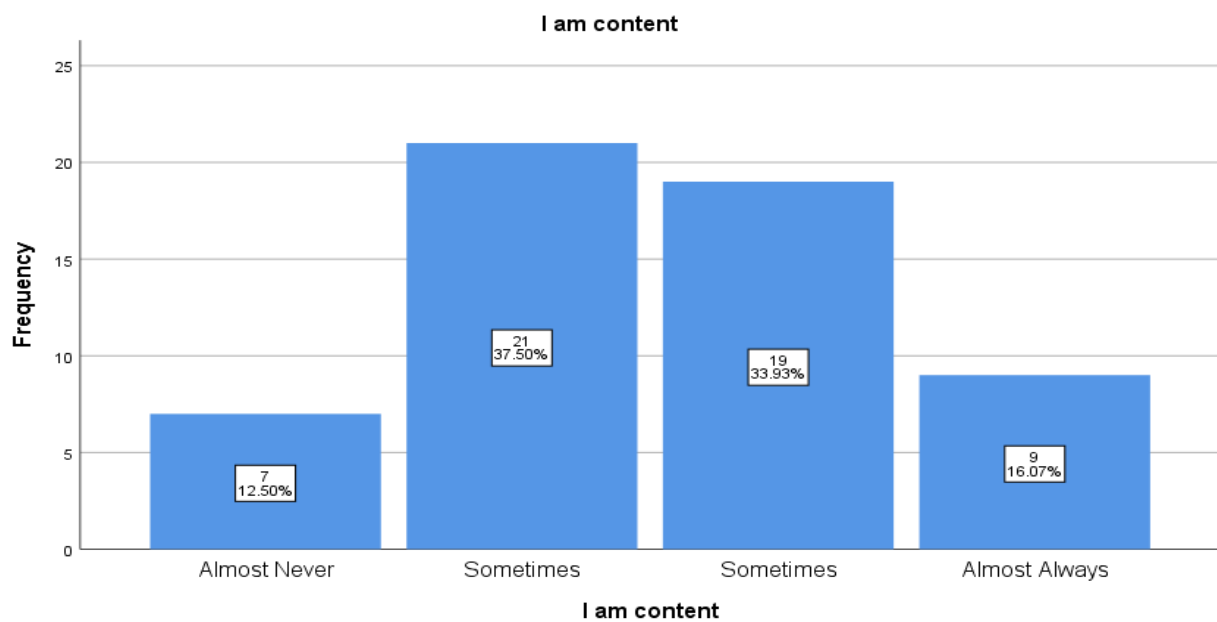

Figure 39

Figure 40 shows that the Item thirty-five was "I feel inadequate" 8 (14.3%) were go with almost never, 16 (28.6%) were select sometimes, 19 (33.9%) were agreed with often and 13 (23.2%) were select almost always.

Figure 40

Figure 41 shows that the Item thirty-six was "I am content" 7 (12.5%) were go with almost never, 21 (37.5%) were select sometimes, 19 (33.9%) were agreed with often and 9 (16.1%) were select almost always.

Figure 41

Figure 42 shows that the Item thirty-seven was "Some unimportant thought runs through my mind and bothers me" 16 (28.6%) were go with almost never, 17 (30.4%) were select sometimes, 22 (39.3%) were agreed with often and 9 (16.1%) were select almost always.

Some unimportant thought runs through my mind and bothers me

Figure 42

Figure 43 shows that the Item thirty-eight was "I take disappointments so keenly that I can't put them out of my mind" 8 (14.3%) were go with almost never, 17 (30.4%) were select sometimes, 22 (39.3%) were agreed with often and 9 (16.1%) were select almost always.

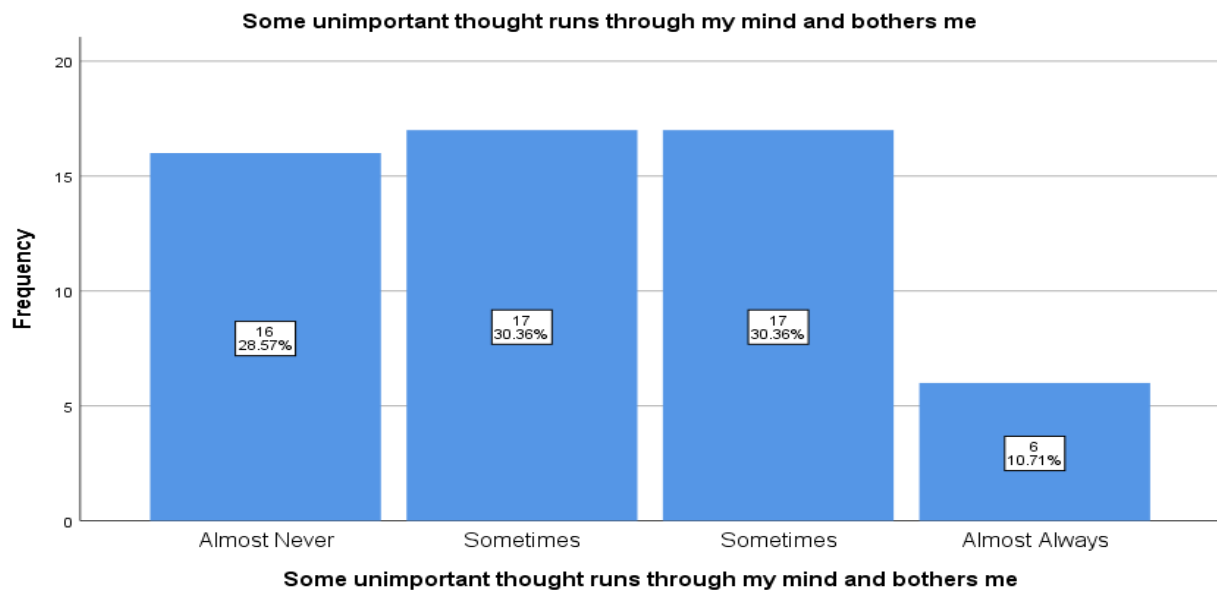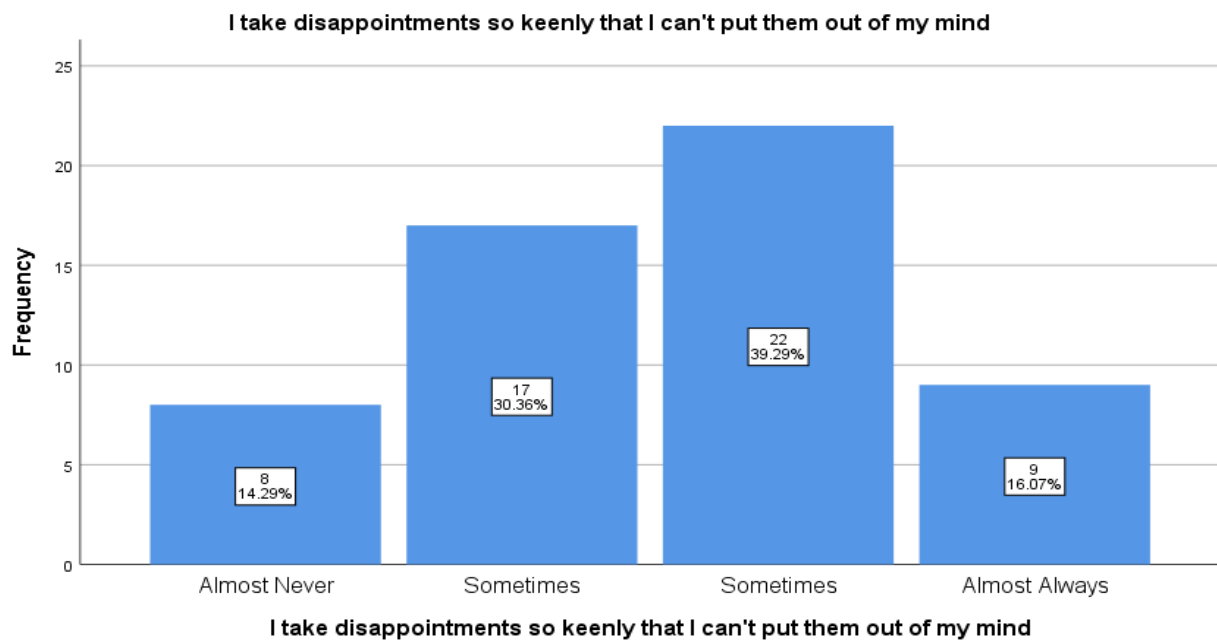**I take disappointments so keenly that I can't put them out of my mind**

Figure 43

Figure 44 shows that the Item thirty-nine was "I am a steady person" 6 (10.7%) were go with almost never, 17 (30.4%) were select sometimes, 26 (46.4%) were agreed with often and 7 (12.5%) were select almost always.

Figure 44

Figure 45 shows that the Item forty was "I get in a state of tension or turmoil as I think over my recent concerns and interests" 10 (17.9%) were go with almost never, 18 (32.1%) were select sometimes, 19 (33.9%) were agreed with often and 9 (16.1%) were select almost always.
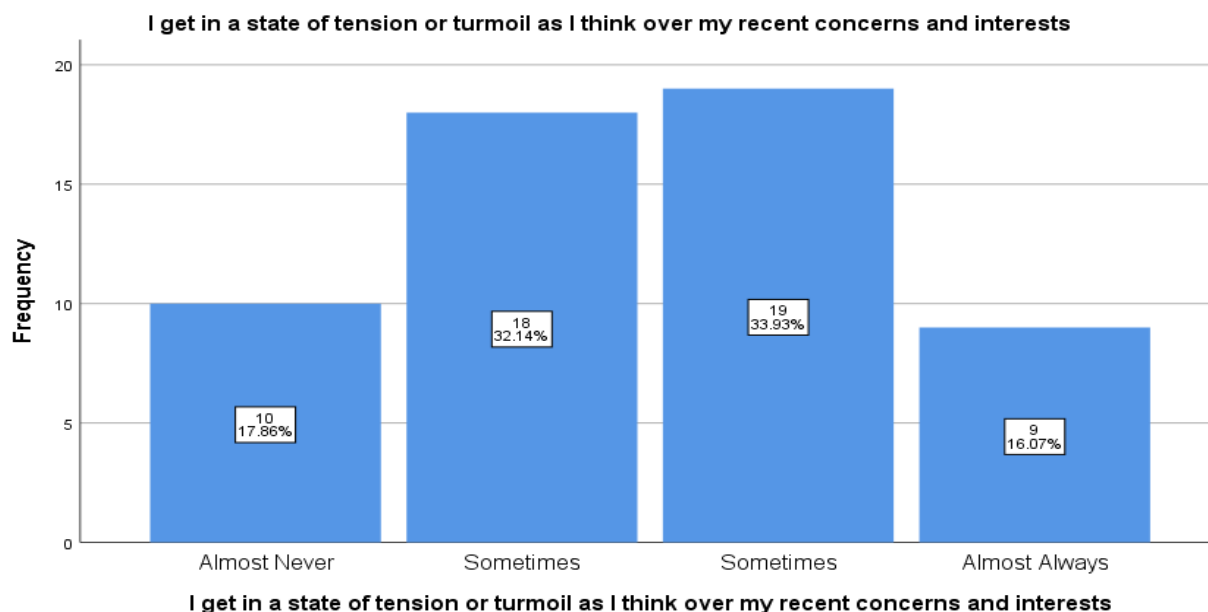
Figure 45

DISCUSSION

This study conducted among 56 patients visiting the emergency department with chest pain   working at tertiary care hospital to evaluate the anxiety level and results revealed that only (25) 47 % patients have low level of anxiety and majority (31) 53% have suffered from high level of anxiety. Further the demographical characteristics revealed that the gender of the participants was found 45 (80.4%) were male and 11 (19.6%) were female. Age of participants was found minimum 21 to highest 60, participant's age group 21-30 years frequency was 6 (10.7%), moderately 12 (21.4%) participants were belonging to age group 31-40 years, majority 29 (51.8%) were fall in age group 41- 50 years and 9 (16.1%) were 51-60-year-old.

The educational status of the participants results revealed that 12 (21.4%) were illiterate, 15 (26.8%) were Primary (class 1-8), 17 (30.4%) were Lower secondary (class 9-10), 8 (14.3%) were Higher secondary (class 11-12) and only 4 (7.1%) were got Higher education (above 12). The patients with chest pain reported that 16 (28.6 %) were already diagnosed with diabetes Miletus (DM), 22 (39.3%) were hypertensive (HTN), 10 (17.9%)

were suffered from dyslipidemia and only 8 (14.3%) were not have any comorbidities. Moreover, Majority 31 (55.4%) were living in urban area and only 25 (44.6%) were living in rural area.

This result is in consistent with the study that showed that according to the demographic data for patients undergoing only diagnostic cardiac catheterization procedures approximately two-thirds were male, whereas 56% of the patients were 65 years of age or older and 10%of the patients were 80 years of age or older (Dehmer et al., 2012).

In the current study, majority male patients were suffering from chest pain and it was observed that male and female patients mostly suffered from mild anxiety and 38.1% female patients were found suffering from moderate anxiety. In contrast to the study done in Iran (Al-Hadraawy, Al-qraby, & Shebly, 2015) it was found that women expressed greater anxiety than men. However, men and women were similar at all levels of anxiety in their preference for information and control. Women were significantly more anxious ($p < 0.05$). Although more cardiac procedures are done in men, many studies mention that women are more affected by anxiety. According to some previous studies, the incidence in women ranged from 30 to 55%. About 45% of females present mild anxiety and 40% have moderate anxiety (Lourenci & Andrade, 2006; Ulvik et al., 2008).

CONCLUSION

It is apparent from our study that counseling before cardiac procedure unquestionably reduces the anxiety level of the patients. Other factors, such as providing beds and other physical facilities to the patients further reduce the level of anxiety.

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