



CHAPTER II

REVIEW OF THE LITERATURE

In doing this research, “The Results of the Systematic Health Education Program toward the Pre-operated Anxiety of the Abdominal surgical patients”, the researcher has studied the following related documents :

- Abdominal surgery
- Complications of the abdominal surgery
- Anxiety
- Consequences of anxiety
- Instruments for anxiety measurement
- Factors influencing preoperative anxiety
- Preoperative anxiety
- The Meaning of the Knowledge-Providing Program
- Giving the pre-Operative Information
- Giving the Sensory Information
- The Pre- operative Information for the Patients
- The Related Researches

Abdominal Surgery

Abdominal surgery is one predominant part of the general surgery. Abdominal surgery has a key role in the treatment of digestive disease (Kelly, 1994). The morbidity and mortality rates of digestive disease are very high in the United States and cause significant affects (Kelly, 1994). Kelly (1994) indicated that 9% of all deaths were caused by gastrointestinal diseases, excluding GI cancer; more than 22 million patients were afflicted with an acute GI disorder, resulting in 36 million days lost from school and work; 40 million patients suffered from chronic gastrointestinal disorders, which resulted in 158 million days of restricted activity and 22 million days lost from work, the economic toll is estimated to be a staggering 90 billion dollars a year (Kelly, 1994).

The abdominal surgery is divided into three categories, extraperitoneal, intraperitoneal-extraintestinal, and intraperitoneal-intraintestinal surgery (Nachlas, younis, Roda, & Wrtzyk, 1972). The extraperitoneal surgery is the procedure in which dissection occur to enter the abdominal wall but not enter the abdominal cavity. The intraperitoneal-extraintestinal surgery is the procedure in which the gut is handled but the gastrointestinal tract is not entered. The intraperitoneal-intraintestinal surgery is the procedure in which the gastrointestinal tract is opened.

Gruendemann and Meeker (1987) identified the abdominal surgery including the gastrointestinal, biliary, and liver operations, splenectomy, herniorrhaphy, appendectomy, and surgery on great vessels of trunk. They identified the laparotomy as an opening made through the abdominal wall into the peritoneal cavity.

Complications of the Abdominal Surgery

It is reported that abdominal surgery carried an incidence of pulmonary complications of 10.3 percent, while the complication rate for nonabdominal procedure was only 0.6 percent (Fujita, 1995) . The incidence of pulmonary complications was doubled after procedures in the upper abdomen of the abdominal group of operations, gastric surgery was followed by the highest incidence of atelectasis and pneumonia (Fujita, 1995).

Doglietto and colleagues (1996) pointed out that the patients undergoing major abdominal surgery were at risk of developing the pulmonary, circulatory, and other organs and systems complications postoperatively in terms of objective criteria. They are pneumonia, pulmonary embolus, pleural effusion emoperitoneum, pulmonary failure, myocardial infarction, cardiogenic shock, cardiopulmonary arrest, stroke, septic shock, wound infections, urinary tract infections, abdominal abscess, fasciitis, bacteremia, septic coagulopathy, anastomic leak, wound dehiscence, gastrointestinal bleeding, perforation, obstruction, and ischemia, pancreatitis, hepatic dysfunction, and renal failure.

Anxiety

Definition of anxiety

Many theories and models explained and described anxiety differently based on their values, beliefs, attitudes, and perspectives (Gomez, Gomez, & Otto., 1984). Freud, the first psychoanalytic theorist, proposed a critical role of anxiety and identified the anxiety as the result of damned-up libido based on physiological malfunctioning.

Anxiety is a state in which the individual/group experiences feelings of uneasiness or apprehension that cause the autonomic nervous system's response to a vague and non-specific threat (Carpenito, 1997).

Anxiety is the result of a nodal point accompanied by specific and characteristic danger situations at the beginning of life. Once maturation and development take place, anxiety is the result of an intrapsychic struggle between id and superego to hold in conflicted impulses or to have them emerge into consciousness through the ego (Sieber, O'Neil Jr. , & Tobias, 1977). It is a psychological tension produced by disturbed interpersonal relationships originating within the mother-infant relationship and later occurring in situations in which prestige and dignity are threatened by others from whom we cannot escape (Sullivan, 1953, cited in Gomez et al., 1984). Anxiety acts as maintaining or restoring emotional security and self-esteem, and a response fulfillment perceived by the individual are encountered (Peplau, 1952, cited in Gomez et al., 1984).

Anxiety is also defined as apprehension cued off by a threat to some value which the individual holds essential to his existence as a personality (May, 1950, cited in Goodwin, 1986). It is a painful experience a person will do almost anything to avoid it at the cost of previous opportunity to be free to develop, grow, and to become a creator instead of a creature. Anxiety is ambiguous and global without specific content, after the development of self-awareness, anxiety acquires many specific contents. No one can avoid anxiety (Pasquali, Arnold, & DeBasio, 1989).

Pavlov (1928, cited in Gomez et al., 1984) explained that anxiety is a natural or unconditioned response with an incidental situation which become conditioned. It is a learned and habitual response to situations that contain no real threat. The consequences of the reward to a given response to a stimulus is anxiety behavior (Skinner, 1938 cited in Gomez et al., 1984).

Gomez and colleagues (1984) stated that anxiety is a delicate balance between excitatory and inhibitory elements. Excitatory stimuli are mediated by a concentration of norepinephrine and serotonin originating in the locus ceruleus. An inhibitory counter balance is localized in the limbic system and its impulses are mediated by the amino acid gamma-aminobutyrate (Snyder, 1975).

According to Spielberger (1972), anxiety is an unpleasant emotional state in which the individual felt uneasiness, tense, insecurity, and apprehension manifested by activation or arousal of autonomic nervous system. He separated state anxiety from trait anxiety. Spielberger identified the state anxiety as a temporary emotional state characterized by feelings of apprehension, tension, and heightened autonomic nervous system activity. It is a situation-specific emotional response to an undesirable event. State anxiety is provoked by the external stimuli and can be effected by the external environment manipulation. The trait anxiety is characterized by individual differences and proneness to anxiety when the self-concept of the person is threatened. Trait anxiety is determined by the internal stimuli correlated to individual's defense and coping mechanisms, it is not easily to be effected by the external environment manipulated by nurses (Sieber et al., 1977).

In conclusion, anxiety is psychological tension, a learned and habitual response to situations that contain no real threat resulting of anxiety behavior. For this study, Spielberger's state anxiety was investigated as a situation-specific subjective feeling of apprehension, uneasiness, nervousness, worry and tension manifested by activation or arousal of autonomic nervous system. It is unpleasant emotional state or condition.

Consequences of Anxiety

Anxiety can be thought of as a continuum from mild/low, moderate, and severe/high levels or degrees of anxiety to panic (Carson & Arnald, 1996; Clark, Fontaine, & Simpson, 1994; Johnson, 1997; Kim et al., 1991). The manifestations of anxiety differ depending on the nature of the activity performed and the level of anxiety experienced (Sieber et al., 1977).

The consequences of anxiety can be displayed in physiological, emotional, perceptual and cognitive, and behavioral aspects in terms of different levels of anxiety (Carson & Arnold, 1996; Clark et al., 1994; Johnson, 1997; Kim et al., 1991). The levels and consequences of anxiety are explained as following;

Mild or low level of anxiety is useful in preparing individual to protect self and motivate the individual to meet demands. At this level, the person may show increased pulse, heart rate, and blood pressure due to sympathetic arousal. The person's perceptual field increases slightly, cognitive processes remain intact, maintains the ability to relate thoughts and ideas in a coherent manner, and behavioral effects of anxiety usually cannot be aware of.

Moderate level of anxiety; the physiological effect in this level can be manifested by muscle tension, diaphoresis, pupils dilated, and increased pulse, blood pressure and breathing rate, peripheral vasoconstriction. The person may feel tension and fear, dull perception, attention focused on issue of concern, sees, hears, and grasps less but able to shut out irrelevant data. Behavioral effects can be seen by hesitation and procrastination, change of topics, repetitive questioning, joking, and frequent change in body position, sense of helplessness, apprehensive expectation, sweating of palms, and vigilance and irritability.

Severe or high level of anxiety; the person displays “fight or flight” responses, generalized sympathetic nervous system response, dry mouth, numbness of extremities, feel distress and trembling. Sensory perception greatly reduced, person can focus only on small details, processing of sensory stimuli occurs in a scattered and disorganized manner, learning cannot occur. Behavior displays purposeless activities and difficult and inappropriate verbalizations. The person may feel dyspnea, dizziness, fear of going crazy, visual disturbances, and motor tension with hyperactivity.

Panic; the sympathetic nervous system continues arousal. The person is emotionally overwhelmed, may regress to primitive coping behaviors. Perception becomes grossly distorted, the person is incapable of differentiating between real and unreal stimuli and response only to internal distress, concentration, learning, and problem-solving are virtually impossible. Inability to speak. Verbal and nonverbal behaviors suggest a psychotic-like state in which the panic-stricken person is virtually hopeless and cannot negotiate simple life demands. The person may scream and run

wildly or may cling tenaciously to something or someone accurately or inaccurately perceived as a source of safety and security. Feelings of impending doom or death, chest pain or discomfort.

Instruments for Anxiety Measurement

There are several psychological instruments for anxiety measuring. They are the state-trait anxiety inventory (STAI) (Spielberger et al., 1983), linear (LAS) or visual analogue scale (VAS), and Taylor's manifest anxiety scale (MAS) (Shuldham, Cunningham, Hiscock, & Luscombe, 1995).

STAI, developed by Spielberger (1983), comprises two parts with 20 items in each. One part is for state anxiety measuring, another part is for trait anxiety measuring. It can be used as a self-completion questionnaire, ask respondents to indicate from a choice of four responses how they feel at that moment (state) in respect to 20 descriptive statements. It can also be conducted by the researcher to ask for subjects' description of how they generally feel. The reliability and validity had been tested both in hospitalized patients and non-clinical subjects, proved in an acceptable level (Elliott, 1992). Scores range from 20 to 80 on both state and trait subscale. The scale is rated on four-point scale, for trait subscale range from "almost never" to "almost always", and from "not at all" to "very much so" on the state subscale (Spielberger et al., 1983).

The linear (LAS) or visual analogue scale (VAS) has been repeatedly tested and validated and described as a simple, sensitive and reproducible tool (Shuldham et al., 1995). The linear or analogue scale consist of a 100 mm line drawn on a paper with a

negative statement of anxiety on one end and positive statement of anxiety on the other end. At the left-hand end of which is a state indicating zero anxiety-“not anxious at all” and at the right-hand the statement “most anxious I can imagine”. The patient is asked how much anxiety he feels and to indicate the level of anxiety by making a marking a mark on analogue or linear scale.

MAS was developed by Taylor in 1953 (Sieber et al., 1977), based on the manifestations of anxiety supported by the psychologists. It consists of 50 items. It has been proved to be highly reliable over time, and the test retest reliability is .81. The construct and content validity have been widely tested and validated.

All instruments have been used in a variety of research studies to measure anxiety. For LAS or VAS, the score is easy to be remembered by subjects, they may give the same score at post-intervention .MAS needs longer time to complete it than the two others, sometimes it is not convenient. For this study, Spielberger' s (1983) State Anxiety Inventory (SAI) was used to measure abdominal surgical patients' feelings at two different preoperative moments in the afternoon of the day before surgery.

Factors Influencing Preoperative Anxiety

Patients experience different levels of anxiety (Kincey, 1995). The characteristics of an individual, the characteristics of the particular form of surgery, and the organizational structure of the health care system are responsible for their differences. Preoperative anxiety is influenced by a multitude factors including gender, age, previous experience of anesthesia, chronic disease, and understanding illness related to cultural and religious and the education achievement.

According to Grabow and his colleagues (1990), women and young patients experienced higher level of anxiety than men and older patients. Anxiety was higher in females and those not having had a previous anesthesia, and among the patients who had previous anesthesia, their anxiety was influenced by the quality of it (Badner et al., 1990; & Tolkdorf, 1984). Besides, the educational background was a related factor to preoperative anxiety, there was a negative relationship between anxiety and educational achievement (Leske, 1993).

There is insufficient information in the literature to identify which characteristics of surgery most affect surgical patients' anxiety response (Kincey, 1995). Considering the cerning surgical procedures, there are evidences showing that the incidence of severe psychological problems seem to be higher for the patient undergoing major surgery than those undergoing minor surgery (Mumford Schesinger, & Glass, 1982). The extend to which surgery restore or remove function, increase or decrease life expectancy, increase or decrease the incidence of pain, produce or remove visible evidence of mutilation, and increase or decrease the demands' of self-care will affect psychological outcomes (Kincey, 1995). The multiple dimensions of surgery affect patient' s anxiety responses.

However, Kincey (1995) emphasized that different individuals showed very different psychological responses to seemingly identical stressors and the same individual may show similar psychophysiological stress responses to different stimuli.

Preoperative anxiety

Hospitalization for surgical procedure can be experienced as a threat or stressor may produce anxiety in patients, Most patients suffered preoperative anxiety (Badger, 1994; McCleane, 1990; Richardson & o' Sullivan, 1991).

Anxiety occurs in the preoperative phase as the patients anticipate an unknown event with potential pain and discomfort, changes in body image or function, increased dependency on family, life changes (Patrick, Wood, Graven, Rokosky, Bruno, 1991).

Gaberson (1991) stated that the preoperative anxiety is feeling of apprehension, tension, nervousness, and worry in anticipation of the surgery.

McCleane and Cooper (1990) stated that the presence of anxiety is almost universal in the preoperative patients. This anxiety is influenced by uncertainty about the impending procedure, by past experience of anesthesia and surgery, and by suggestions of family and friends, and fellow patients. The feeling is unpleasant, and may cause patients to fail to attend to the planned surgical procedure.

Badger (1994) stated that anxiety is an uncomfortable feeling of dread that is aroused by a real or perceived threat to physical or mental well-being.

Chisbolm (1988) stated that anxiety is an uneasy, uncomfortable feeling aroused by response to a threat or danger.

Spielberger, Gorsuch, and Lushene (1983) defined anxiety as a state in which the individual feels uneasiness, tension, insecurity, and apprehension manifested by activation or arousal of the autonomic nervous system. He explained state anxiety was a situational-specific emotional response to an undesirable event that leads to feeling of apprehension.

There are many studies investigating preoperative anxiety. Wang and Xu (1991) conducted a study in China to investigate anxiety before receiving anesthesia among 100 surgical patients. They found that 80 percent of surgical patients' anxiety related to possible pain. Liang, Liu, and Du (1994) conducted a study in 60 Chinese subjects with elective major abdominal surgery (N=36) and elective major gynecological surgery (N=24). The Spielberger State Anxiety Inventory was used to measure anxiety at the beginning of admission, the night before the operation, and the day before discharge. They found that the levels of anxiety in the subjects at the three times were significantly higher than in normative group. The highest level of State anxiety was during the night before surgery.

In summary, preoperative anxiety is a feeling of uneasiness, tension, insecurity, nervousness, worry, and apprehension coming with arousing the activation of autonomic nervous system. The threat for preoperative anxiety includes anticipated potential pain, discomfort, change in body image and life changes. Many studies showed most of the surgical patients experienced it.



The Meaning of the Knowledge-Providing Program

The knowledge-Providing Program is defined as follows:

Prapapen Suwan and Sawing Suwan (1993) defined the meaning of health education as an educational process. It is planned to originate the changes focusing on the direct or in direct problems or behaviors which influence the health of target population. The problems and the behaviors many vary, depending on the nature of the problems. In some cases, the target group might be an individual, or a small group, or focus on the structure and the process.

Kelly and Lewis (1987) contends that it is a systematic learning plan set up to cause changes in the aspects of knowledge, attitudes and practices resulting in the sound health condition of an individual, the families and the communities.

Rorden (1989) clarifies that it is a teaching standard to provide the knowledge to a particular person or some certain group of people who need the some health topic which can cover the objectives of treatment, health promotion, and body performance enhancement.

In conclusion, the Knowledge-Providing Program is a plan to give knowledge to individuals, and it is thoroughly and systematically put in writing in advance, causing the best health condition.

To promote the body performances by using the Knowledge-Providing Program calls for the learning and teaching process which can relay the knowledge to encourage

the patients to learn how to change the knowledge, attitudes, and self-practices in a proper way. However, to teach the patients to achieve the learning goal, one should consider the factors affecting then learning as well.

The Advantages of the Knowledge-Providing Program

The Advantages of the Knowledge-Providing Program are as follows: (Aporn Chaitiang, 1994: sondbery,1989)

1. In the Aspect of Instructing Nurses

- 1.1 It can make the instructors feel confident in teaching. When they have confidence, the teaching process will go on smoothly, rapidly, and procedurally because there is a complete and preliminary teaching arrangement and direction to control the teaching to go on in the same guideline.
- 1.2 It can make the teaching worthwhile, and it is worth the waste of time. The teaching is much more effective than the one without an arrangement in advance because the instructors have analyzed the factors that affect the teaching and made a plan to solve the problems already as well as staled the suitable teaching direction. They have specific learning objectives, and when they can achieve the targeted objectives, they will feel proud of and satisfactory for their teaching tasks.
- 1.3 An instructor has handouts to remind his/her not to forget or go over the some thing, and these handouts can be used as a guideline for the next teaching, and for the evaluation and the assessment plan.

Moreover, other people can be substitute instructors and the learners will gain the some teaching benefit as learning from the regular instructors.

- 1.4 It can be used to bring about the co-ordination by dividing the responsibility among the instructors to avoid the teaching repetition of the instructors of the health care team.
 - 1.5 It can be used as an evidence of the work carried out by the health care team instructors.
 - 1.6 The learners have a good and positive attitude toward the instructors and the knowledge because the instructors are ready and able to teach thoroughly and procedurally. The learners are able to understand, instructors' competence, and pleased to learn.
2. In the Aspect of the patients as learners
 - 2.1 The physical side
 - 2.1.1 The learning program can lessen the patients' pain because providing them the knowledge can make them change their beliefs in health care and cognitive aspects. When the patients can accept that the pain is what they have to face, they will be able to learn how to control and lessen the pain. Then they will change their behaviors and the ways to face the pain well, and will be able to control it. The expression of pain will also decrease (Luckmann & Sorensen, 1987).
 - 2.1.2 It can help the patients to recover more rapidly, reducing the period of time staying in the hospital as a matter of the fact that

giving them the knowledge can make them change their beliefs and behaviors. They accept the medical treatment and assistance, and take a better care of themselves (Wanida Intaracha, 1995). When there are proper self-practices, the complications don't occur, so the quicker post-operative recovery exists. According to the study of McHugh, Chrisman, and Johnson, (1982), it was found out that giving knowledge about the various feelings that they have to face could make the patients anticipate the future incidents as closely to the reality as possible, and when they confront that incident, they feel confident, and are able to behave decently, and have a participation in taking a better care of themselves after the operation. It also helps rehabilitate the physical, mental and emotional conditions, so the patients can reduce the length of staying in the hospital after the operation.

2.1.3 It can reduce the post-operative complications because the patients have more knowledge and skills in the self-practices in order to avoid the coming complication. They have proper behavioral hygiene changes, so no complications occur causing a quicker post-operative recovery. Based on the study of Cupples, (1991), providing the knowledge to the patients who had undergone the coronary-artery bypass was found out that the patients who were provided with the those of the control group.

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- 2.2 The specific information is the detailed data of each situation that the patients have to face when coping with threatening predicaments.
3. In the Aspect of the Detail of the Information
 - 3.1 The information about diseases and the reasons for medical treatments
 - 3.2 The information about the medical procedures
 - 3.3 The information about the feelings arising from the medical treatments.
 - 3.4 The information about the ways to confront the coming incidents

In conclusion, the pre-operative data should consist of the information about diseases and the reasons for an operative treatment, a pre-operative preparation, and the self-practices before, while, and after an operation including some extra information which they might make use of before, while, and after an operation as well as the coping information. However, under the anxiety circumstances like this, the patients are not ready to get too much detailed information or various types of information, so giving some necessary procedure information, and the sensory information should be better than giving them too much detailed information.

Giving the Sensory Information

Giving the Sensory Information focuses on the subjective experiences toward the threatening incident. This kind of information will make the patients get their correct images which convey the reality of their own selves, and it is better than giving the objective information which is widely used now. Therefore, the sensory information

will encourage the patients to understand and control themselves to face the threatening circumstances, and they are able to control responsive reactions (Hill, 1982; Johnson and Rice, 1974; Johnson et.al., 1975)

The sensory information is the data which describe each facing situation which other patients have undergone. When the patients are under those circumstances, the sensory information will convey the real surroundings via the six senses, which are seeing, hearing, touching, tasting and smelling (Hathaway, 1986), so the sensory information will tell the patients that what will happen in those particular situations, and when they will happen , and when those situation do happen.

McCaffery (1972) suggested that the given sensory information should be bared on the real situations. Apart from telling the patients about the feelings which will happen, the personnel should tell then about the length of time, the sensitive area, the medical appliances and the reasons for the medical treatments. McCaffery (1972) also added that giving the sensory information, the personnel should not directly use the words “pain”, but should avoid it and use other substitute words, such as the word “discomfort”, and should refer to the severity of discomfort as “little, moderate or high,” or compare it with other familiar situations, such as “like being pressed, or stung by a see”. They should avoid using the word “searing pain” because it conveys the more severity and misery, and they shouldn’t use the persuading words, such as “must”, or “will” (be painful) because in the same situation most people may feel painful, but that particular person may feel nothing. Therefore, the personnel should avoid using the word “maybe” or “perhaps” in the medical descriptions. Due to the quantity of the

sensory information contents, Johnson (1973) said that some or all of the sensory information which the patients have to face will not be differently beneficial due to the fact that some of it may be interesting and cause the patients to anticipate the future incidents correctly.

Bored on the initial concepts, the guidelines of giving sensory information are summed up as follows:

1. The patients will be directly told about the sensory information without being assessed. For example, the personnel should tell them that they may feel painful, but should not tell them that they will have to face the horrible things.
2. The patients should be told about the causes of the feelings because knowing the causes together with the feelings will help them interpret the meaning of the feelings more clearly.
3. The patients' feeling should be prepared simply in the part that interests most patients, and this information is taken from the assessments and the hearsays of the patients who have faced the situations.
4. The patients should be told when they will be painful about the severity and the length of the pain because waiting for the start and the end of the pain may make the patients vaguely conclude that the end of the pain is uncertain, that the pain will happen again, and that it will be so terrible that they can't stand it.
5. The patients should be given the information contents exactly the same as what they have to face, but the information about the pain should be

avoided, and use the word “discomfort” instead, and the personnel should also avoid the data or the pain-persuading words, such as the word “must” and “will” (cause pain). They should use the word “maybe” or “perhaps” instead. because the process of medical treatment which make most people painful may make this patient feel nothing.

6. The patients should be informed about the level of that discomfort, such as “little”, “moderate,” and “quite high”, or the comparison of other feelings, such as “being pulled”, “being pressed”, “being stung by insects”, and “like a knife cut”, but the personnel should avoid the words “the searing pain” or “like a piercing needle.” These words convey the feelings of danger, so they should be avoided if possible.
7. The patients should be given the information just exactly as closely as the reality because the sensory information which is not relevant to the truth will not result in lessening the pain. Knowing some or all of the information doesn’t affect the reduction of the level of anxiety because a person can depend on some information in anticipating the true feeling they will have to face correctly.

The Pre- operative Information for the Patients

The pre-operative information is very necessary and essential to the patients because it will help them to lessen the anxiety toward to coming operation. The pre-operative information should consist of the following contents namely:

1. The Knowledge of the developing diseases or the facing problems, and the necessity and the advantages of the operative treatment are roughly given to

the patients so that they will realize the importance and the necessity in giving a co-operation in bringing about their own benefit of self caring. This information consists of an operative schedule, and if the operation is not urgent, the patients will have enough time to prepare themselves, so that they will not be worried about their own responsibility, but if they are urgent cases, the patients should be informed about only when the operation will be because they won't have enough time to prepare themselves because of the pressing situation. However, they should be informed about the types of prescribed anesthesia, the name of the surgeon and the medical treatment expenditure.

2. The information about the general preparation of the body condition, such as the body hygiene should also be given so that the patients will be in the most perfect condition before an operation. If they have some underlying diseases, such as hypertension, cardiac conditions, etc, They should be given some advice about taking a strict care of themselves, administering some medicine, and additional medical treatments to prevent and lessen the problems of the pre-operative complications. The medical personnel should also advise and help the patients to have sufficient food and good rest so that then body health will be in a sound condition and ready to be given anesthesia and an operation.
3. The specific preparation is done on the very night or in a short period of time before an operation, such as a lung X- ray, E.K.G, collecting a urine examination for a lab test and, and signing an operation consent. This step will have to cover more specific preparations, such as an N.P.O. to make

the stomach and the intestines empty. Preparing an operative skin, being given some medicine, such as a dose before bedtime, a muscle relaxant, a sedative, and inductive injection and a pre- medication. After that the nurses have to check the patients' vital signs and the urinary excretion. Then the patients have to put away their valuable belongings and their false teeth before they are moved to the operating theatre.

4. The personnel should give the patients the information about what they have to face on the operating day, such as the characteristics of the operating theatre, and the medical procedures before they fall asleep because of the effect of anesthesia.
5. The information about the patients' post- operative conditions is whether they will be removed to the own ward, and how to treat themselves after the operation, including the information about the pain of an operative wound and discomfort.
6. The information about the condition and medical practices for the post- operative patients consist of doing the exercises in order to move the operated organs, the limitation of using the operated organs, the length of home recovery period, and the necessity and the practices when coming for the post- operative appointment

The Related Researches

Kaewsamsee Sarcharem, Capt. (1993) study the effect of information giving on pre-operative anxiety level of orthopedic surgical patients. The research samples consisted of 30 orthopedic surgical patients who were admitted in Pramongkutklao

Hospital and assigned into two experimental groups by match paired. The first experimental group received procedure information while the second group received procedure and sensory information. The instruments were the State Anxiety Inventory and anxiety observation scale developed by the researcher. The major findings were as follows: 1 In the first experimental group, there was no significant difference between the mean scores before and after the experiment. 2. In the second experimental group, the mean score of anxiety level after the experiment was significantly lower than before the experiment, at the .05 level. 3. After the experiment, there was no significant difference between the mean scores of the anxiety level of patients in the first and second experimental groups.

Nantaporn sansiriphun (1997) study the effect of pre-cesarean section visits by operating room nurse on anxiety of pregnant women. The sample consisted of 50 term pregnant women who were admitted for undergoing cesarean section at Obstetric and Gynecology Operating Unit of Maharaj Nakorn Chiang Mai Hospital. Subjects were purposively selected and were randomly and equally assigned into the experimental and control groups. Subjects in both were matched according to the education level and the special antenatal received. Subjects in experimental group were visited as planned, by the researcher at which a Preoperative Handbook was also provided, whereas subjects in the control group received only a routine nursing care. The results of this study revealed that the anxiety of subjects in the experimental group, either being at ward a day prior to operation or being in operation room just before the operation, was statistically significantly lower than that of the control group ($p < 0.01$).

Saichol Junwijit (1996) study the effects of educational and relaxation program on postoperative recovery in renal surgical patients who were admitted in male urological and female surgical ward at Buddhachinaraj hospital in September 1995 to March 1996. The samples were selected by purposive sampling: the first 10 samples were control group, the second 10 samples were first experimental group and the third 10 samples were second experimental group. The control group were received the routine nursing care while the first experimental group received the educational & relaxation program. The results of the study revealed that: 1. The renal surgical patients who received educational and relaxation program demonstrated statistically significant higher in physical recovery scores than those who received only the educational program and the routine nursing care ($p < .05$ and $.001$), the patients who received the educational program demonstrated statistically significant higher in physical recovery scores the those who received the routine nursing care. ($p < .05$) 2. The renal surgical patients who received the educational and relaxation program demonstrated statistically significant higher in mental & emotional recovery scores than those who received only the educational program and the routine nursing care ($p < .01$ and $.001$), the patients who received the educational program demonstrated statistically significant higher in mental & emotional recovery scores than those who received the routine nursing care. ($p < .01$)

Penphorn Toskulkao (1998) : Effectiveness of self-care manual during pre and post-surgery on patients' knowledge attitude and anxiety levels. The purposes of this study are(1) to compare the differences among knowledge, attitude and anxiety level towards the surgery of the patients at the general police hospital before and after

reading the self – care manual during pre and post- surgery (2) to find the relationship among demographic characteristic including sex, age, occupation, education and other variables as experience in surgery, degree of the risk on surgery in relation with increment of knowledge, attitude and anxiety level towards the surgery (3) to search for the effect of acquiring knowledge and attitude as influenced by variability of anxiety level. The respondents are 75 samples. It is found that as a result of exposure to self–care manual for pre and post – surgery, the respondents have more favorable knowledge and attitude and vice versa decrease in anxiety significantly. The only demographic characteristic found to be related to knowledge and anxiety level is education of the respondents ; no relationship is found to be correlated with increment of favorable attitude level ; but it is found that variability of attitude level has some influence on anxiety.

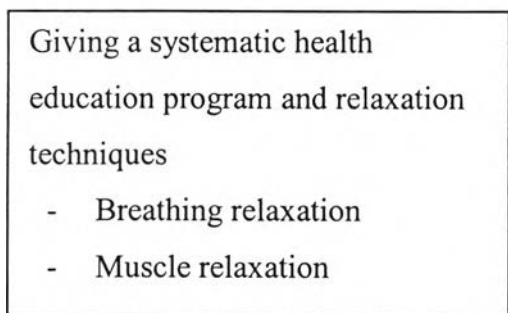
According to the reviews of the documents and the related researches, it is found out that the pre- operative anxiety is a threat to the patients and it can originate the physical stresses, causing the body’s tissues to be sore, painful, and subject to raising complications. For the mental aspect, the anxiety can affect the body functions and the emotional states, resulting in delaying the post – operative recovery. Based on the studied document and researches, the researcher has found out that giving the pre-operative health education program to the patients will lessen the anxiety and the complication occurring to the patients. It can help the patients to regain the physical, mental, and emotional states more rapidly than those treated by a routine nursing care and the patient can return to their normal condition and lead their routine lives with soundly physical and mental states.

Conceptual Framework

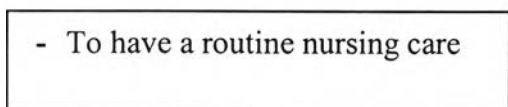
In order to perform the research, the researcher has regulated the following conceptual scope:

Independent Variables

The experimental group



The control group



Dependent Variables

