EFFECTS OF THERAPEUTIC GROUP ON ANXIETY AND DEPRESSION IN GYNECOLOGIC CANCER PATIENTS UNDERGOING RADIATION THERAPY

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This quasi-experimental study aimed to determine the effects of therapeutic group on anxiety and depression in gynecologic cancer patients undergoing radiation therapy.

The population were gynecologic cancer patients undergoing radiation therapy at the Out-patient Department, Radiation Unit, Srinagarind Hospital, Faculty of Medicine, Khon Kaen University. A sample of 40 was purposively selected, and randomly assigned to the experimental and control groups in equal size.

Research instruments were the State Anxiety Inventory, Zung Self-Rating Depression Scale and therapeutic group plan. The reliability of the State Anxiety Inventory was 0.87, Zung Self-Rating Depression Scale 0.87. Data collection was done during April to August 2001. The control group received regular nursing care for four weeks and the experimental group received therapeutic group plus regular nursing care. The therapeutic group consisted of a 60-90 minute session, for eight sessions, during 4 weeks. Data were analyzed using ANCOVA.

Results revealed the majority of the subjects had cervical cancer, with a staging 2, their age range was 51-60 years. Anxiety and depression of the gynecologic cancer patients undergoing radiation therapy in the experimental group were statistically significant lower than the control group ($F=11.72$, $P<0.05$, and $F=25.86$, $p<0.001$).

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พรนิภา หาญละคร: ผลของกลุ่มบำบัดต่อความวิตกกังวลและความซึมเศร้าในผู้ป่วยมะเร็งอวัยวะสืบพันธุ์สตรีที่ได้รับรังสีรักษา (EFFECTS OF THERAPEUTIC GROUP ON ANXIETY AND DEPRESSION IN GYNECOLOGIC CANCER PATIENTS UNDERGOING RADIATION THERAPY) คณะกรรมการควบคุมวิทยานิพนธ์: นงคราญ ผาสุข, ค.ม., กรรณิการ์ สุวรรณโคต, ค.ด., 155 หน้า ISBN 974-04-1553-9

การวิจัยกึ่งทดลองนี้มุ่ง ศึกษาผลของกลุ่มบำบัดต่อความวิตกกังวลและความซึมเศร้าในผู้ป่วยมะเร็งอวัยวะสืบพันธุ์สตรีที่ได้รับรังสีรักษา ประชากร คือ ผู้ป่วยมะเร็งอวัยวะสืบพันธุ์สตรีที่ได้รับรังสีรักษา ณ แผนกรังสีรักษา โรงพยาบาลศรีนครินทร์ คณะแพทยศาสตร์ มหาวิทยาลัยขอนแก่น กลุ่มตัวอย่างถูกเลือกแบบเจาะจงจำนวน 40 คน แบ่งเป็นกลุ่มควบคุมและกลุ่มทดลองกลุ่มละ 20 คนโดยการสุ่ม เครื่องมือในการวิจัยคือ 1) แบบวัดความวิตกกังวลแบบเผชิญ 2) แบบวัดความซึมเศร้าของซุง และ 3) แผนการทำกลุ่มบำบัด ค่าสัมประสิทธิ์ความเที่ยงของแบบวัดความวิตกกังวลคือ 0.87 และค่าสัมประสิทธิ์ความเที่ยงของแบบวัดความซึมเศร้าคือ 0.87 ผู้วิจัยเริ่มเก็บข้อมูลในช่วงเดือนเมษายนถึงเดือนสิงหาคม พ.ศ. 2544. กลุ่มทดลองได้รับการทำกลุ่มบำบัด 8 ครั้ง ครั้งละ 60-90 นาที ในช่วง 4 สัปดาห์ วิเคราะห์ข้อมูลโดยใช้การวิเคราะห์ความแปรปรวนร่วม (ANCOVA)

ผลการวิจัยพบว่าผู้ป่วยส่วนใหญ่ เป็นมะเร็งปากมดลูก ระยะที่ 2 อายุอยู่ระหว่าง 51-60 ปีและจากการศึกษาพบว่ากลุ่มที่ได้รับการทำกลุ่มบำบัดมีความวิตกกังวลต่ำกว่ากลุ่มควบคุมอย่างมีนัยสำคัญทางสถิติ ($F=11.72$, $P<0.05$) และมีความซึมเศร้าต่ำกว่ากลุ่มควบคุมอย่างมีนัยสำคัญทางสถิติ ($F=25.86$, $P<0.05$)

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CHAPTER I

INTRODUCTION

Background and Rationale

At present, cancer is a serious public problem in every country even in developed countries that have advanced science and medicine such the States. It is the second cause of death after heart disease and circulation disease (Center for Disease Control, 1999). The cancer trend has increased each day and is related to change of life style and the volume of pollution in the environment (Srimoragot, 1999: 60). From the annual Statistical Reports of the National Institute of Thailand in 1990 there were 59,467 cancer patients (National Cancer Institute of Thailand, 1990), and in 1993 there were 73,257 cancer patients (National Cancer Institute of Thailand, 1993) and it was the third cause of death (Public Ministry, 1997). In this decade, gynecologic cancer, especially cervical cancer, is the most common cancer in women and remains an ongoings serious problem of women because it is the most common of cancer–related deaths among women in Thailand.

Gynecologic cancer is the cancer of female reproductive organ. The common cancer are cervical cancer, ovarian cancer, endometrial cancer, sarcoma of the uterus, and vaginal cancer. The majority of cervical cancer patients visited their doctors in stage 2, and 3 (Pumiputh, S. & Chotigavanit, C., 1984: V). Ovarian cancer is the second common cancer the gynecologic cancer patients and it was the third cause of

death in women by cancer. 70-80 percent of ovarian cancer patients in the third and fourth stages came to visit the doctor, therefore radiation therapy was not effective. It was necessary to use a combination of chemotherapy and radiation therapy (Srisupunadit, S & Leenasamith, W.in Srisupunadit, S. Ed., 1988: 7). Endometrial cancer is the third common cancer in gynecologic cancer, in which the treatment is invasive deep myometrium, using surgery to combined with radiation therapy (Issarangul Na Ayuthaya, N. & Srisupunadit, S. in Leenasamith,W. & Tungtragul, S. Eds., 1996:170; Gale & Charett, 1995: 233).

Nowadays, there are many treatments for gynecologic cancer, including surgery, radiation therapy, chemotherapy and immunology (Srisupunadit, S & Leenasamith, W. in Srisupunadit, S. Ed., 1988: 7; DiSaia & Creasman, 1997: 620). Radiation therapy is frequently the treatment of choice. It can be used alone or in combination with surgery or chemotherapy, depending upon the stage and extent of the disease and the patient' s status (Srisupundit, S. & Leenasamit, W. in Srisupundit, S. Ed., 1988: 7). Radiation is preferred to treat in most gynecologic patients. It is one type of treatment that is well developed and effective in gynecologic cancer patients. Especially for cervical cancer, radiation therapy can treat all stages of cancer (Autayagul, A., 1986: 11; Issarangul Na Ayuthaya, N. & Srisupunadit, S. in Leenasamith, W. & Tungtragul, S. Eds., 1996: 167; Wharton, et. al., 1987: 1-9, 18). The principle of radiation therapy uses ionizing radiation to damage cancer cells and it affects normal cells also. The radiology principle affects more on the recovery of living cells than cancer cells (Tepmongkol, P., 1981: 1; Yasko, 1982: 631; Strohl,

1988: 230). Radiation therapy for curative purposes have to use the optimal volume of radiation to damage the cancer cells. Cervical cancer patients stage 1, 2, 3 who received radiation therapy have a survival rate of 88.46 %, 64.10 % and 38.36 % respectively (Issarangul Na Ayuthaya, N. & Srisupunadit, S.in Leenasamith, W. & Tungtragul, S. Eds.,1996: 167), and stage 4 cervical cancer patients have a survival rate of 27 % (Kim, et al.,1989: 973-978). The duration of radiation therapy is about 1-1.5 months or a total volume of radiation therapy of 4,000-6,000 cGy (Gripibool, P. 1981: 134-143; DiSaia & Creasman, 1997: 624). Although radiation is an effective treatment for gynecologic cancer, a brief high dose of radiation that destroys cancer cells can also damage normal neighboring cells. The patients have side effects in the locally irradiated area, and general systemic effects. The side effects are usually classified as acute and chronic. The most common side effects usually occur in gynecologic cancer on radiation therapy over the whole pelvic are reddened or tanned skin, itching sensation, dysurea, weakness, nausea, vomiting, diarrhea and sexual problems (Wharton, et al.in Sciarr, et al., 1987: 25; Kobashi–School, 1985: 306-313). The severity of side effects varies from patient to patient and mostly depends on factors of the treatment and factors of the patients. Treatment factors are volume irradiated, total radiation, time, and energy of radiation dose rate. Patient factors are general conditions, radiosensitivity of normal tissues undergoing treatment, condition of area to be treated, and other concurrent therapeutics, such as surgery and chemotherapy (Hollon, in Moossa, et al., Eds., 1991: 1784; Woodruff, 1996: 325-326).

When cancer is mentioned, people feel fear, perceive severe disease, difficult treatment and suffering (Srimoragot, 1999: 1). There are some researches studied psychological problems in cancer patient as follows:

Sukatungka, G. (1981: V) studied chronic patients and cancer patients, in all 200 persons. The results showed educational level, marital status, family income were not influent on anxiety and depression in chronic patients and cancer patients.

Bukberg, et al. (1984: 199-212) reported that 24 percent of cancer patients in a hospital had severe depression, 18 percent had moderate depression and 14 percent had mild depression.

Krause (1991: 243) studied perceptions in cervical cancer patients. The results showed cancer is a symbol of pain, suffering, hopelessness, ugliness, denial, stigma, loss of love, neediness, and cost, long-term treatment and uncertainty.

Thomson and Shear (1998: 241-7) reported the results of their literature review that the main problems in cancer patients were anxiety, depression and adjustment disorders. These reactions were found in high incidence and increased continuously during treatment. Nilchaigowith, et al. (1996: 18) studied cancer patients and the results showed most patients had depression and anxiety, 47 percent had psychiatric problems, and depression is the greatest problem. According to the study of Hosaka and Aoki (1996: 309) studied in 50 cancer patients, and 50 medical patients. The results of the study showed that 44 percent of cancer patients had psychological problems, and 38 percent of medical patients had psychological problems, and depression is the main psychological problem.

From above all of the researches it showed the majority of cancer patients had psychological problems but it is deplored that psychological problem in general, and in cancer patients were often neglectful (Derotorgis, 1986: 197).

Regardness psychosocial problem in gynecologic cancer patients undergoing radiation therapy, they felt about cancer and treatment, that radiation therapy was a symbol of hopelessness, its effects were anxiety, uncertainty, hesitation, depression, image change, dependence and these symptoms may occur during or post-radiation therapy which led to the patient rejecting treatment (Gripibool, P., 1987: 45; Grijareon, S. 1995: 19-25). Patients who knew they would to be treated by radiation therapy will have more fear, hopeless, anxiety and stress. It affected behavior e.g. hesitate, avoid or reject treatment (Tuntisuntorn, W., 1980: 129-130). Tunsakul, A. (1989: 703) found that before radiation 65 percent of cancer patients had anxiety and after radiation for 1 week 80 percent of cancer patients had anxiety.

Nursing intervention for relieving anxiety and depression has many techniques e.g. meditation, relaxation, music therapy (Niwathchai, A., 1989: 1104-1106), and group therapy (Leszc, 1990: 379). These nursing interventions have been found to relieve anxiety and depression, as follows:

Pengsuwun, S. (1984: A) studied the effect of meditation on anxiety and depression in cervical cancer patients on radiation therapy. The results showed anxiety and depression significantly decreased. ($P<0.01$).

Sombatgaew, N. (1993) studied the effect of relaxation technique on anxiety in head and neck cancer patients before radiation therapy. The results showed significantly decreased anxiety in the group ($P<0.01$).

Sornboon, A. (2000) studied the effect of music therapy on anxiety and nausea vomiting in breast cancer patients on chemotherapy. The results showed significantly decreased anxiety ($P<0.05$).

In addition, there is an effective modality for helping patients, that is therapeutic group (Marram, 1978: 10; Blake, et al., 1999: 1586). Therapeutic group can relieve anxiety and depression. The atmosphere of group provides mutual support and help member to increase social skills, receive respect from the group, increase self–esteem (Lescz, 1990: 379; Poey, 1985: 794). Therapeutic group helps the members to ventilate the problems in the present, which it affect to the member self-understanding, and decrease anxiety (Shive, 1998: 52). In addition, therapeutic group helps the member to understand life, that it is not just her / himself who has problems, but everybody has problems and increase self–esteem self-esteem (Poey, 1985: 794; Wolberg, 1988: 794).

From literature review in abroad, there were the researches reported the effects of therapeutic group on anxiety and depression significantly decreased in the patients, as follows:

Wellisch, et al. (1999: 1644-5) studied the effects of therapeutic group on anxiety and depression in patients who were at risk for breast cancer. The results showed that therapeutic group significantly decreased anxiety and depression ($P <0.05$).

Forestor, et al. (1993: 1700-6) studied the effects of therapeutic group on anxiety and depression in cancer patients on radiation therapy. The results showed therapeutic group significantly decreased anxiety and depression ($P<0.05$).

Payne, et al. (1997: 65-79) studied the effects of therapeutic group on depression in soft tissue sarcoma. The results showed that therapeutic group significantly decreased depression and social isolation ($P<0.01$).

In Thailand, there were some researches on the effects of therapeutic group but it was called by a different name, depending on the characteristics of groups, the members, the process of group and the place, and the results showed significantly decreased anxiety and depression in patients, as follows:

Rathanamasthip, N. (1988) studied the effects of group counseling on anxiety based on client-centered theory. The results showed significantly decreased anxiety ($P<0.01$).

Kongphuntu, S. (1992) studied the effects of a project of health education using group process on anxiety in cervical cancer patients undergoing radiation therapy. The results showed significantly decreased anxiety. ($P<0.001$).

Leetongin, A. (1992: V) studied the effect of self-help group on depressed elderly at Joseph' s home in Khon Kaen province. The results showed significantly decreased depression ($P<0.001$).

Satapumirin, R.&Tungworapong, J. (1998: V) studied the effects of supportive group on depression in the elderly. The results showed significantly decreased depression ($P<0.05$).

As the researcher is a psychiatric and mental health nurse. It was realized that the therapeutic group was important, therefore the researcher was interested in studying effects of therapeutic group on anxiety and depression in gynecologic cancer patients undergoing radiation therapy. In order to use the benefits of therapeutic

group for intervention in gynecologic cancer patients. Which at present, it is the most common cancer among women and a serious public health problem in Thailand.

Research Questions

1. Is anxiety of the gynecologic cancer patients undergoing radiation therapy in the experimental group lower than the control group after controlling pretest score of anxiety?
2. Is depression of the gynecologic cancer patients undergoing radiation therapy in the experimental group lower than the control group after controlling pretest score of depression?

Objectives of the study

1. To compare the difference in anxiety of the gynecologic cancer patients undergoing radiation therapy between the control group and the experimental group after controlling pretest score of anxiety.
2. To compare the difference in depression of the gynecologic cancer patients undergoing radiation therapy between the control group and the experimental group after controlling pretest score of depression.

Research Hypotheses

1. Anxiety of the gynecologic cancer patients undergoing radiation therapy in the experimental group is lower than the control group after controlling pretest score of anxiety.

2. Depression of the gynecologic cancer patients undergoing radiation therapy in the experimental group is lower than the control group after controlling pretest score of depression.

Scope of the Study

This research studied the effects of therapeutic group on anxiety and depression of gynecologic cancer patients undergoing radiation therapy. All of the patients were from the Out-patient Department, Srinagarind Hospital, Khon Kaen University. The study was conducted between 1st April 2001-31st July 2001. The research instruments were the State Anxiety Inventory (1970), the Zung Self-Rating Depression Scale (1965), and the therapeutic group plan.

Expected Outcome and Benefits

Guideline development of therapeutic group for gynecologic cancer patients undergoing radiation therapy who had anxiety and depression.

Operational Definition of Study Variables

Anxiety refers to the scores of a functional and emotional disorder, a condition of disturbed emotion and behavior, characterized by feelings of fear, apprehension, nervousness, inadequency, tension and dread when facing a stressful situation, which is measured by the State Anxiety Inventory.

Depression refers to the scores of emotional change, grief, blue, agitation, confuse, inmaking decision, lack of concentration, personality change and physical change of a patient, measured by the Zung Self- Rating Depression Scale.

Therapeutic group refers to a small group treatment which combined some techniques of client-centered therapy and cognitive behavioral therapy, including encourage the members to express feeling, exchange experience, give knowledge about disease and self-care, provide mutual support, encourage, appropriate adaptation, positive reinforcement and relaxation techniques.

CHAPTER II

LITERATURE REVIEW

In this section the literature review includes the following categories:

1. Anxiety and depression in gynecologic cancer patients undergoing radiation therapy.
   - 1.1 Anxiety
   - 1.2 Depression
   - 1.3 Anxiety and depression in gynecologic cancer patients undergoing radiation therapy
     - 1.3.1 Gynecologic cancer & radiation therapy
     - 1.3.2 Anxiety and depression in cancer patients undergoing radiation therapy
2. Therapeutic group
3. Therapeutic group and nursing interventions for relieving anxiety and depression

1. Anxiety and Depression in Gynecologic Cancer Patients undergoing Radiation Therapy.

1.1 Anxiety

Anxiety is the initial response to a psychiatric threat. Because anxiety is a form of energy, it is not accessible to direct observation. It must be ascertained mainly through a client' s self-report. An anxious client may describe the subjective expertene of anxiety as involving vary feeling of vague discomfort, uncertainty, self-doubt, diffuse apprehension, dread, restlessness or jumpiness, jitteriness, helplessness, powerlessness, and irrationdity (Peplau, 1963: 1).

Anxiety is the feeling that person have, when person think that something unpleasant, it is going to happen in the future. Person might use other word and phrases to describe it, saying that person are feeling 'apprehension', 'uncertain', 'nervous', 'wound up', 'on edge' or that you are 'dreading the worst'. (Priest, 1983: 1).

Spielberger (1972: 487-489) divided anxiety into 2 types.

State Anxiety means a functional disorder or a condition of disturbed emotion and behavior, characterized by feeling of fear, apprehension, nervousness, inadequacy, tension and dread: usually associated with a real or imagined threat to one' s security. State Anxiety may vary in intensity and fluctuation overtime as a function of the stress that impinge on an individual.

Trait Anxiety seems to be an individual difference that may influence behavior in highly and moderate stimulating situations. This trait is usually defined as directly

related to individual difference in responding to certain types of highly stimulating situations, namely threat situations (Spielberger, et al., 1972: 490).

In summary, there are some definitions of anxiety, which all of definitions were resemble in the aspect of unpleasant emotion, fear, apprehension, uneasiness, nervousness, worry, discomfort, uncertainty. Which these emotions or behaviors occur in real situation or imagine in threaten or lack of safe situations.

Psychodynamic of Anxiety

Larzarus (1965) and Spielberger (1979) cited in Lader & Mark (1971: 47) concluded that "stress can be defined as translation between the person and the environment in which stressors are linked to anxiety reactions by the perception of threat.

The interaction model of anxiety proposes that both type of threat perceived in a stressful situation and the dimension of A-trait must be considered in predicting changes in A-state. A person situation interaction producing changes in A-state would be expected to occur only when the dimension of A-trait and the type of stress in the situation were congruent. That is, an individual high in physical danger A-trait would be predicted to show increase in A-state in a physical dangerous situation; no such changes would be predicted for individual low in physical danger A-trait. When the dimension of A-trait and the situational stress are not congruent, no interaction prompting changes in A-state would be anticipate. Thus, it is necessary for research on stress and anxiety to consider person, situations, and the

multidimensionality of the constructs. A schematic presentation of the interaction model of anxiety may be useful in summary (see Figure 1).

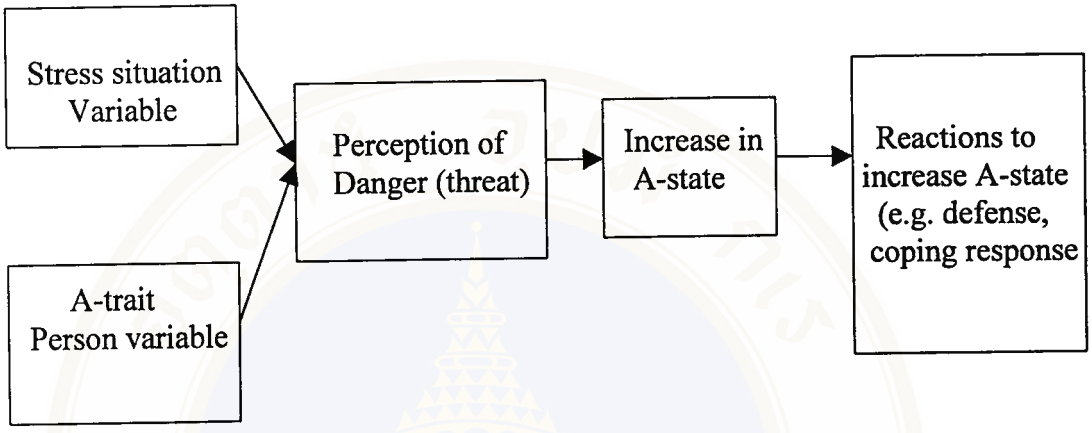

Figure 1: Relation between stress and anxiety

(Source: Lader & Mark, 1971: 47)

Causes of Anxiety

Anxiety caused from frustration, conflict, stress, uncertainty, guilty feeling that was not responded to desire and drive (Stuart and Laraia, 2001: 277-281; Johnson, 1997: 408; Antai-Otong, 1995: 192).

Spielberger (1972: 42-45) said that anxiety occurs when something is stimulated externally (example situation) or internally (idea, feeling, need). It depends on which person perceives the situations as threatening or dangerous. The anxiety can occurs (cognitive appraisal) or it occurs from anticipation. It is called state anxiety which increases depending on the level of emotion and autonomic nervous system activities and appraisal. Trait anxiety predisposes person to perceive a failure of the situation or a threat to their self-esteem.

Defense Mechanism

Defense mechanism that a person can use to cope with anxiety is as follows:

1. Mild Anxiety: person can cope with the problem by crying, sleeping, eating, laughing, exercise, fantasy or eating behavior e.g. smoking, drinking alcohol. If anxiety occurs from a person or situation, a person can cope with the problem by neglecting, using repeated speech and being careful or isolation.

2. Moderate and severe anxiety: in this level, a person use energy for coping with the problem. The defense mechanisms used to cope with the problem by getting rid of the fear, conflict, and cognitive thinking. The reaction to anxiety has two ways, conciousness by using various defense mechanisms but these mechanisms do not cope the problem. The defense mechanism which is used to decreased anxiety, to maintain or prevent ego or self.

Defense mechanism that are usually used to release anxiety are denial, reaction formation, regression, intellectualization, impulse, undoing, displacement, sublimation (Stuart and Laraia, 2001: 284; Johnson, 1997: 379; Antai-Otong, 1995: 97).

The degree of anxiety

Anxiety occurs in each situation with various tendencies. It depends on the stimulation and characteristics of each person. The degree of anxiety is from mild to panic.

Peplau (1963: 328-329) identified four level of anxiety and described their effect on the individual behavior.

1. Mild anxiety is associated with the tension of day-to-day living. During this stage the person is alert and the perceptual field is increased. The person see, hears and grapes more than previously. This kind of anxiety can motivate learning and can produce growth and creativity.

2. Moderate anxiety in which the person focuses only on immediate concerns, involves the narrowing of the perceptual field as the person sees, hears, and grapes less. The person blocks out selected areas but can attend to more if directed to do so.

3. Severe anxiety is marked by a significant reduction in the perceptual field. The person tends to focus on a specific detail and not think about anything. All behavior is aimed at relieving anxiety, and much direction is needed to focus on an other area.

4. Panic is associated with awe, dread and terror. At this stage details are blown at of proportion. Because of a complete loss of control, the person is unable to do this things even with direction. Panic involves the disorganization on of personality. A person can not longer function as an organized human being. There is increased motor activity, decreased ability to relate to others, distorted perceptions, and loss of rational thought. The person in panic is unable to communicate of function effectively. This level of anxiety cannot persist indefinitely because of it is incomplete with life. A prolonged period of panic would result in exhaustion and death.

Effects of anxiety

In situations that people have anxiety and its effects on the body and mind is as follows: (Stuart and Laraia, 2001: 278; Johnson, 1997: 380-382; Antai-Otong, 1995: 192-196).

1. Physical changes

The mechanism of physical changes by stimulation affects the central nervous system: brain, spinal cord, thalamus, hypothalamus and cerebellum which produces a response from the adrenal gland. The medulla releases epinephrine and causes a flight or avoiding situation.

Physical changes are caused by anxiety. The autonomic nervous system is composed of the sympathetic and parasympathetic nervous system. Both of these systems have opposite dynamics for homeostasis. The parasympathetic nervous system has a major role in mild and moderate anxiety but in severe anxiety the sympathetic nervous system has the major role.

2. Psychological changes.

2.1 Behavior changes and personality changes e.g. withdrawal, depression and regression.

2.2 Overt behavior e.g. anger, agitation and covert behavior e.g. hostility.

2.3 Decreased perception and decreased level of consciousness, decreased concentration. These reactions are not appropriate or are not proportionate with the stimulus.

2.4 Unhappiness, confusion, indecisiveness, anxious, fear, anorexia, impotence, insomnia, and nightmare.

Factors associated with anxiety

The factors associated with anxiety are (Linn, 1980: 1222-1223):

1. Genetic: people who are thin and tall tend to have more anxiety; the study of Nyamathi & Kashiwabara (1988: 168) showed that families that had neurotic anxiety patients had a greater chance of having neurotic anxiety than other people.

2. Psychological factors: strict care-taking, negative experiences, parents' attitudes to their child.

3. Age: development and changes happen each day. School age adolescent, adults, and the elderly can have less anxiety. According to the study of Ass, et al. (1997: 1597-604) studied anxiety in 716 cancer patients, the results showed that patients who had ages lower than 30 years, and greater than 70 years, had lower level of anxiety than other people in the study group. Srimorakot, P. (1998: 59-69) studied anxiety in 293 cancer patients. The results showed the state anxiety had a low negative relation with age ($r = -0.23$, $P<0.001$) and trait anxiety also had a low negative relation with age ($r=0.21$, $P<0.001$). According to the study of Nyamathi & Kashiwabara (1988: 168) anxiety had a negative relation with age; and early adults had more anxiety than other ages. In contrast, Sukatungka, G. (1981: V) studied anxiety in cancer patients, showed that differences in age did not have an affect on the level of anxiety.

4. Social factors, culture, traditions, economics, politics and law are factors that affect the level of anxiety.

4.1 Culture and tradition: the study of Tan (1968 cited by Lader & Mark, 1971: 34) showed, in Bangkok and Kualalumper, Chinese men have high anxiety. Thus, culture and tradition may have an affect on the level of anxiety.

4.2 Economic: the study of Apichato, A. & Sukasam, S. (1994: 20) showed anxiety in 60 cancer patients undergoing radiation therapy at Princess Songkla Nakarind Hospital. The results showed anxiety was related significantly to economic level ($r=0.25$, $P<0.05$). The study of Srimorakot, P. (1998: 59) studied anxiety in 293 cancer patients undergoing radiation therapy; the results showed the state anxiety had a low negative relation with economics ($r=-0.23$, $P<0.001$). In contrast, the study of Sukatungka, G. (1981: V), a comparative study between cancer patients and chronic disease patients; the results found economic level did not affect anxiety.

4.3 Education level affects anxiety (Linn, 1980: 789). In contrast, the study of Sukatungka, G. (1981: V) did a comparative study between cancer patients with chronic disease patients; the results found that education level did not affect anxiety level.

In addition to these four factors, other factors that influence anxiety include sex, marital status, health status, stage of disease, severity of disease, time for treatment and place.

Sex

Woodruff (1972, cited in Areepuk, S.1981: 302) studied neurotic out-patients at a psychiatric unit; the results showed the ratio between females to males was 2:1. The study of Ass, et al. (1997: 1597-604) studied anxiety in 716 cancer patients; the results found 13 percent of patients had anxiety. Females had more anxiety than males and females showed physical disability and social disability as predicted anxiety. In contrast, Sukatungka, G. (1981: A) a comparative study between cancer patients and chronic disease patients, found sex did not influence the level of anxiety.

Marital Status

Sukatungka, G. (1981: V) studied cancer patients and chronic patients. The results showed marital status did not influence anxiety. However, Lewin (1987: 213) said that married people influenced emotional changes more than single people.

Stage of disease, Severity

Taylor cited in Srimorakot, P. (1998: 68) said that anxiety can increase depending on the stage of disease e.g. when pain is increased, the patients has increased anxiety, or fear of exacerbation of disease. The study of Charmpman & Cox (1977 cited by Doman, et al., 1989: 763), which studied the relation between the level of anxiety and severity of disease in cancer patients who have to have an operation, found that cancer patients had more anxiety than patients with other diseases. Also, an operation in a vital organ or in an important organ or in an organ of

gender affected anxiety more than other organs (Wofe and Davis, 1970 cited in Naka, K., 1991: 18; Graham, 1971 cited in Doman, et al., 1989: 763).

Duration of Treatment

Apichartoe A. & Sukasam, S. (1994: 20-29) studied anxiety in 60 cancer patients undergoing radiation therapy at Princess Sonkla Nakarind Hospital. The results showed the sample group had more anxiety in the first week than the fourth week, with statistical significance ($P<0.001$).

Illness Status

Priest (1983: 9) said that health status affects anxiety. According to the study of Tansakul, A. (1989: 704) studied 100 cancer patients before radiation therapy. The results showed the sample group had anxiety and the perceptions that most patients suffered, although on different treatments.

Place and Environment

Ass, et al., (1997: 1579-604) studied 716 cancer patients. The results showed 13 percent had anxiety and the patients who were admitted in the hospital had two times more stress than outpatients.

There are many studies that reported factors related to anxiety. The factors that were studied include age, development, sex, marital status, economic level, education level, illness situation, culture and tradition, type of treatment, severity of disease and duration of treatment. These factors are important and affect anxiety.

Anxiety Evaluation

Anxiety can be evaluated many ways. Spielberger (1970) suggested the evaluator should consider choosing the appropriate way to evaluate anxiety, in 2 ways (Wilson & Barnet, 1992: 372-379).

1. Evaluation of physical changes e.g. heart rate, blood pressure, respiration rate and reaction of pupil. Lader (1975 cited by Wilson Barnet, 1992: 373) said that it was difficult to evaluate anxiety this way because anxiety may not be related with the same reactions in each person.

2. Physical evaluation have two types:

2.1 Behavioral measurement observes behavioral changes e.g. movement, verbal language and perception. The belief is that the behavior of each person reflects from internal emotions and other people can observe it e.g. agitation, thrill, exhalation, speaking rapidly, trembling and crying. Nurses can evaluate anxiety by observing these behaviors. Rushman (1974 cited by Wilson-Barnet, 1992: 372) studied anxiety; the results showed anxiety behavior was observed from facial reactions e.g. fear and pain. In addition to these reactions, other factors that have an influence on anxiety are age, culture, and basic experiences.

2.2 Self-report measurement of anxiety can be evaluated by use of self-assessment questionnaire. The instrument that is often used for anxiety evaluation is the State-Trait Anxiety Inventory (Spielberger, 1970). This is composed of 2 types of questionnaires (Spielberger, 1972: 718-721).

2.2.1 State Anxiety Inventory or A State Inventory show the characteristics of anxiety that have occurred temporarily in threatening situations or

unsafe situations, There are 20 items. It measures tension, anxious, fear that is related with uncalmness, unsafety, dissatisfaction of a person. Increases in the scores depend on tension or threatening situations.

2.2.2 Trait Anxiety Inventory or A-Trait Inventory shows the characteristic evaluation of a person. There are 20 items. Characteristics measured include general feelings that are quiet, stable, or in an unchanged situation.

1.2 Depression

Depression means emotions are changed e.g. grief, blues, agitation, confusion, indecision, lack of concentration, changable personality and physical changes e.g. anorexia, constipation, insomnia, and exhaustion (Zung, 1965: 63-64).

Depression is similar to anxiety in many ways, and the two are linked. Depression is an emotion with strong physical side. It can often come after a period of anxiety, be caused by anxiety or go hand in hand with it. In fact, aroused 80 percent of sufferer from either or depression an affected by both to together (Priest, 1983: 16).

Depression seemed to follow the loss of real or fantasied love objects. He believed that internal psychological mechanisms caused depression (Freud, 1917 cited in Shelton & Ackerman, 1974: 85)

In summary, there are some definitions of depression, in which in variety aspects, including changed of emotion and changed of physical, depression is similar to anxiety many ways, both of terms are linked and usually occur together and its causes were loss of real or fantasied love objects. However, when depression occur it

affect to emotion and physical in variety level and characteristics of depression including grief, blue, agitation, confused, indecision, lack of concentration, changeful personality, anorexia, constipation, insomnia, and exhaustion. These people are at risk for self-damage.

Psychodynamic of Depression

Figure 2 present the Stuart Stress Adaptation Model with the continuum of emotional response. This involves the person being affected by and being an active participant in the internal and external worlds. It implies an openness to an awareness of feelings. It used in such a way feeling provide us with valuable learning experiences. They are barometers that give us feedback about ourselves and our relationships, and they help us function more effectively. Also adaptive in the face of stress is an uncomplicated grief reaction. Such a reaction implies that the person is facing the reality of the loss and is immersed in the work of grieving.

A maladaptive of response is the suppression of emotions. This may be a denial of one' s feelings or a detachment from them. A transient suppression of feeling may at time be necessary to cope, as in an initial response to a death or tragedy. However, prolonged suppression of emotion, as in delayed grief reaction, will ultimately interfere with effective functioning.

The most maladaptive emotional responses or severe mood disturbances are recognized by their intensity, pervasiveness, persistence, and interference with social and physiological functioning. These characteristics apply to the clinical status of depression and mania, which complete the maladaptive and of the continuum of emotional responses.

The maladaptive responses are a result of anxiety, hostility, self-devaluation and guilt. This model suggests the nursing care should be centered around increasing self esteem and encouraging expression of emotions.

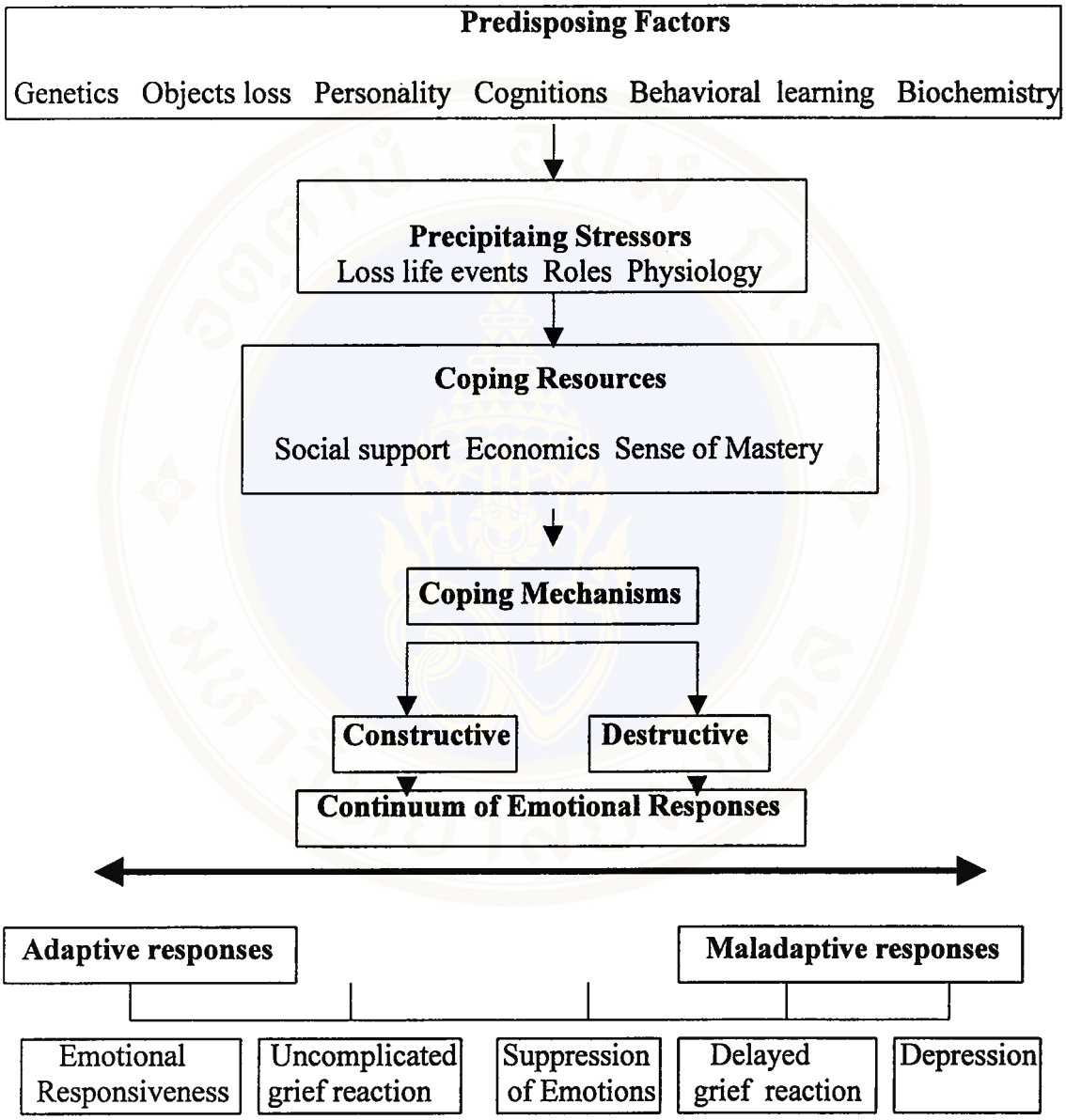

Figure 2: The Stuart Stress Adaptation Model related to emotional responses (Stuart & Laraia, 2001: 361)

Causes of Depression (Staurt & Laraia, 2001: 352-360, Priest, 1983: 18).

1. Genetic: the belief about depression is that it is difficult to transfer because it is not a dominant gene; thus depression can be transferred by taking care. A study showed if a family has one depressed person, the son or daughter has a 10-15 percent probability. If both father and mother have depression, the son or daughter has a 50 percent probability of being depressed.

2. Biochemical: a study found depression is related to biogenic amine metabolism in the brain which is connected to nerve impulses.

Metabolism of steroids showed that the volume of steroid output increases and is related to increased depression symptoms.

3. Cause of loss: for example e.g. loss of love, money, things, organs, loss of position, or change of life.

Factors related to Depression

Factors related to depression are as follows:

Age & Sex

Ass, et al., (1997: 1597-604) studied 716 cancer patients. The result showed age and sex did not affect depression, but fatigue predicted depression. Sukatungka, G. (1981: V) studied depression in cancer patients. The results showed different sexes and ages did not affect depression.

Staging and Severity of disease

Marino (1981: 65) said that emotional actions in cancer patients are different depending on the stage of disease. Sukatungka, G. (1981: V) studied

depression in 200 cancer patients and chronic disease patients. The results showed cancer patients have depression more than chronic patients with statistical significance (P<0.01, 0.05 and 0.1).

Marital Status

Lewin (1987: 1-6) said that people who were married had emotional change to a greater degree than single people. The most common emotional change was anxiety and depression (Gripibool, P., 1979: 167). In contrast, Sukatungka, G. (1981: V) studied cancer patients. The results showed differences in marital status did not affect depression.

Educational level and Economic level

Sukatungka, G. (1981: V) studied 200 cancer patients and chronic disease patients. The results showed different economic levels did not affect depression.

The literature review showed that the factors that are often studied in depression are age, sex, marital status, economic status, education levels, stage and disease. The factors related to depression were severity of disease and marital status.

Level of Depression

American Association of Psychiatry divided levels of depression into 3 levels (Geowgingkaew, S. 1984: 159-1961)

1. Mild depression means an unhappy emotion e.g. grief or sadness. Most people meet this situation sometimes e.g. abandonment, loss of significant person.

2. Moderate depression means unhappy emotion with an intensity greater than mild depression, and it affects daily activities. Characteristics of moderate depression are blues, loss of wife and loss of husband from an accident.

3. Severe depression means changes of behavior; patients can not do daily activities. They are out of reality, have suicidal ideas or hallucinations.

Signs and Symptoms

Depression causes changes of emotion and behavior which effect physical and psychological changes. Signs and symptoms of depression are as follows (Zung, 1965: 63-65; Rawlin, in Beck, Ed., 1993: 248-249; Stuart & Laraia, 2001: 349)

1. Physical symptoms

1.1 Insomnia: this is the primary symptom in patients with an age of more than 40 years. Insomnia usually occurs the first time with difficulty sleeping,with nightmares often awakening the person. Dominant symptoms show that 80 percent of patients, when they go to bed can sleep easily but they can not sleep continuously or may it was difficult to sleep and these symptoms may occur every night.

1.2 Fatigue often occurs with approximately 25 percent of patients. This symptom occurs even though the person has little activity. With rest, or sleep, the fatigue cannot decrease.

1.3 Anorexia

1.4 Body weight loss

1.5 GI disturbances e.g. nausea & vomiting

1.6 Motor retardation

1.7 Change of sex hormones e.g. abnormal menstruation, impotence.

1.8 Physical disease e.g. anemia

2. Emotional and psychological symptoms.

2.1 Depression e.g. blues, downhearted, despair and hopelessness.

2.2 Crying.

2.3 Low self-esteem.

2.4 Guilt.

2.5 Anger.

2.6 Fear and anger.

2.7 Inertia.

2.8 Lack of concentration.

2.9 Suicidal ideas.

2.10 Delusions.

2.11 Hallucinations.

3. Social change: isolation

Depressive Evaluation

There are many instruments for depressive evaluation. Mostly use Beck' s Depression Inventory and Zung' s Self-Rating Depression Scale. Both instruments are the standard inventory and widely use to evaluate depression. Beck's Inventory is used to evaluate depressed feelings and behaviors of patients. Zung' s Self-Rating Depression Scale can evaluate depression but it is difficult for patients to ventilate problems. Zung found that depressed patients like to answer questions following criteria more than responding by speaking (Rawlin, in Beck, Ed., 1988: 270-271).

1.3 Anxiety and depression in gynecologic cancer patients undergoing radiation therapy

1.3.1 Gynecologic cancer and radiation therapy

Gynecologic cancer means cancer of the female genital organs and common gynecologic cancers are cervical cancer, ovarian cancer, endometrial cancer, sarcoma of the uterus, and vaginal cancer.

Cervical cancer

Cervical cancer is the most common gynecologic cancer and it is the first in the death rates of gynecologic cancers (Autayagul, A., 1986: 1; Isarangul Na Ayuthaya, N.& Srisupunnadit, S.in Leenasamith,W. & Srisupunnadit, S. Eds., 1999: 448). A study that showed the prevalence of cervical cancer in Thailand (Population-Base). In Chiangmai, there were 33.8 people per 100,000 population, and in Khon Kaen, 18.7 people per 100,000 population. The prevalence in developing countries e.g. U.S.A. was 9.8 people per 100,000 population. At Ramathibodi Hospital, in 1993, cervical cancer was diagnosed in 233 people or 21.30% of female cancers (Ramathibodi Cancer Registry, 1993), and the approximation of cancer in Thailand is 6,000 people per year (Pengsa, P. et al., 1993).

Cause

Real causes are unknown, but predisposing risks include (DiSaia & Creasman, 1989: 549-60; Gale & Charett, 1995: 229; Isarangul Na Ayuthaya, N.& Srisupunnadit, S.in Leenasamith,W. & Srisupunnadit, S. Eds., 1999: 446-449):

1. Women who were married or who had sexual intercourse before 20 years of age.

2. Inflammation or cervical infection and infection with herpes simplex type II.

3. Cervical trauma in women who have many partners.

Stages of cervical cancer as defined by the International Federation of Gynecologic and Obstetrics or FIGO

Pre–invasive carcinoma

- Stage 0 - Carcinoma in situ (CIS) or intra-epithelial carcinoma. In this stage cancer cells do not pass the basement membrane.

Invasive Carcinoma

Stage I: Carcinoma is strictly confined to the cervix extension to the corpus should be disregarded

I A Invasive cancer identified only microscopically

I B Clinical lesion confined to the cervix or pre-clinical lesion greater than IA.

Stage II: Carcinoma extends beyond the cervix but has not extended to the pelvic wall; the carcinoma involves the vagina but not as far as lower third.

II A: No obvious parametrial involvement

II B: Obvious parametrial involvement

Stage III: Carcinoma has extended to the pelvic wall, on rectal examination , there is no cancer- free space between the tumor and pelvic wall; the tumor involves the lower third of the vagina, all

case with a hydronephrosis or non functioning kidney should be included unless they are known to be due to other cause

III A: Involvement of the lower third of vagina.

III B: Extension to the pelvic wall or hydronephrosis or non functioning kidney.

Stage IV: Carcinoma has extended beyond the true pelvis or has clinically involves the mucosa of bladder or rectum.

IV A: Spread of the growth to adjacent organs.

IV B: Spread of the growth to distant organs.

Pathology and invasiveness of Disease

The cancer invades slowly. It may take 7-10 years. Most of the invasive of cervical cancer are changes from the pre-invasive stage (called "dysphasia"). Most cervical cancers are squamous cell carcinoma, there are 85-90 percent of women (Isarangul Na Ayuthaya, N.& Srisupunnadit, S.in Leenasamith,W. & Srisupunnadit, S. Eds., 1999: 452). The pathology is intraepithelium, most of intraepithelium are squamous cell columnar junction or translation zone.

Signs and Symptoms

Signs and symptoms of gynecologic cancer in pre-invasive and invasive stages include (DiSaia and Creasman, 1997: 58):

1. No signs of abnormalities, which most commonly occurs because abnormal changes of the cervix are minimal.

2. Lochia "clear mucus" can be seen but this reaction is similar to general inflammation.

3. Bleeding during or after sexual intercourse, which usually occurs in cases that have scars in the cervix, which cause bleeding.

4. Vaginal examination showed cervical inflammation which is like chronic inflammation or like erosion.

5. Bleeding and necrotic tissue of vessel. The blood may be mixed with pus which causes a bad smell.

6. Pain symptom usually occurs in the final stage and when invasive cancer spreads to obtulator sciatic.

7. Thin, pale, hematuria and bloody stool, hemoptysis, jaundice, bone pain. Radiation therapy can be used in the last stage when the cancer spreads to other organs e.g. bladder, colon, lymphnodes, liver, lung, and bone.

Treatment

The principles in cervical treatment are (Thepmongkol, P., 1981: 8; DiSaia and Creasman, 1997: 66-81; Isarangul Na Ayuthaya, N.& Srisupunnadit, S.in Leenasamith,W. & Srisupunnadit, S. Eds., 1999: 459-470):

1. Surgery is performed in stage Ia and stage IB. After surgery, patients are recommended to have radiation therapy.

2. Radiation therapy is used to treat all stages of cervical cancer (DiSaia & Creasman, 1997: 76). The duration for radiation therapy is 1-2 months and it is used for curative treatment and to relieve symptoms.

3. Chemotherapy; after the treatment, patients should follow up for diagnosis of complications. Recurrence of cancer happens in approximately 80 percent of patients in the first two years.

The follow up treatment is to check every 3 months in the first two years and then follow up every 6 months. Evaluation of treatment found the 5 year survival rate from the annual reports of Ramathibodi Hospital are as follows: stage I were 88.46 percent, stage II were 64.10 percent and stage III were 38.36 percent which is similar to the results of treatment abroad (Pamornprawath, Y. & Srisupunadith, S. in Srisupundith, S., Eds., 1988: 122).

Other gynecologic cancers are ovarian cancer, endometrium carcinoma, sarcoma of the uterus, and vaginal cancer. All of these cancers have 4 stages based on the International Federation of Gynecology and Obstetrics or FIGO.

Ovarian Cancer

Ovarian cancer is the second most common prevalence of gynecologic cancer after cervical cancer (Isarangul Na Ayuthaya, N. & Srisupunnadit, S.in Leenasamith, W. & Srisupunnadit, S. Eds., 1999: 484). But it is the highest first death rate in the U.S.A; the incidence rate is 12.5 per 100,000 people and the expected death rate from the disease is approximately 13,600 people (Ramathibodi Cancer Registry, 1993). 70-80 percent of women are diagnosed in stage III or stage IV (Tangtragul, S.& Srisupunadith, S. in Srisupunadith, S., Ed., 1988: 248; Gale & Charett, 1995: 234).

The results of treatment depend on the type of cancer, method of treatment and residual tumor. Stage IA or IB have a survival rate of approximately 90 percent;

stage III has survival rate of 20 percent. Chemotherapy has a response rate of 70 percent with response lasting for 1-2 years (Tangtragul, S. & Srisupunadith, S. in Srisupuadith, S., Ed., 1988: 256; Gale & Charett, 1995: 234).

Uterine Cancer

This is divided into 2 types.

1. Endometrial carcinoma: it is the third most common after cervical cancer and ovarian cancer. It occurs mostly, 75 percent, in post-menopausal women, in the age 50-60 years. The results of treatment stage I has a survival rate of 76 percent, stage II 51 percent, stage III 26 percent and stage IV 8.8 percent (DiSaia & Creasman, 1997: 115).

1. **Sarcoma of the uterus**: there are rare cases but it is severe. (Autayagul, A.,1986: 12; DiSaia & Creasman, 1997: 134-135). The incidence rate is 3-5 percent of uterine cancer.

External vaginal cancer

This is the fourth mostcommon cancer seen in Thailand after cervical cancer, ovarian cancer and uterine cancer. It mostly occurs in the elderly with an average age over 60 years (Srisupunnadit, S. & Tangtragul, S. in Leenasamith, W. & Srisupunnadit, S. Eds., 1999: 400; DiSaia & Creasman, 1997: 233-234).

If the cancer is non–invasive, spread only to the lymphnodes, the survival rate is 75 percent. If it spread to superficial lymphnodes, the survival rate is 25 percent (Srisupunnadit, S. & Tangtragul, S. in Leenasamith, W. & Srisupunnadit, S. Eds., 1999: 404-406).

Radiation Therapy in the Gynecologic Cancer Patient

Basics of Radiation

Treatment by radiation therapy is the best way to treat cancer, with 50-60 percent of gynecologic cancer patients undergoing radiation therapy (King, et al., 1985: 55-61; Thepmongkol, P., 1981: 1; DiSaia & Creasman, 1997: 617). Radiation therapy is the type of treatment that is used for many objectives e.g. controlling the disease, radical treatment and palliative treatment. The doctor can chose only radiation, or combination treatment, depending on the patients, factors, histology type, stage of disease and response to treatment (Gritjareon, S., 1995: 19; Thepmongkol, P., 1981: 1; DiSaia & Creasman, 1997: 617).

Radiation therapy uses radiation from X-ray and the beam from radiation. The treatment uses ionizing radiation that can damage cancer tissue more than normal tissue (Thepmongkol, P., 1981:1; DiSaia & Creasman, 1997: 622).

Radiation use for cancer treatment involves 2 types (Thepmongkol, P., 1981: 5-10; DiSaia & Creasman, 1997: 624-625).

1. Teletherapy: the origin of the radiation is 35-100 cms away from the organ or tumor. e.g. Cobalt-60 Machine, X-ray machine 90-250 keV., and Xycotron machine. These are quality machines, but too expensive and are not widely used.

2. Brachytherapy is the treatment where the origin of the radiation is implanted in an organ. The radiation that is used for this treatment is Radium, Caesium, Cobalt and Iodine. The benefit of brachytherapy is that the target organ receives optimum radiation.

Gynecologic cancer treatment uses radiation for teletherapy is 4,000-6,000 cGy and the whole pelvis receives radiation. The amount of radiation used to implant in brachytherapy is 4,000-8,000 cGy per hour (DiSaia & Creasman, 1997: 622)

Side Effects of Radiation Therapy

Side effects of radiation are divided into 2 periods, acute effect and late effect (Gritjareon, S., 1996: 113; DiSaia & Creasman, 199: 622-624; Gripibool, P. & Tanachai, M. in Leenasamith, W. & Srisupunnadith, S. Eds., 1999: 301-307).

1. Acute effect occurs during radiation and covers 6-8 weeks after radiation, include:

1. Skin changes: when receiving radiation of 1,000-2,000 cGy, the general layer response to radiation includes rash and, edema which appears for 2-3 days. When receiving radiation of 4000 cGy, the skin is changed in the second week of radiation therapy; these symptoms include skin rash from increased melanin (Gritjareon, S., 1996: 113; DiSaia & Creasman, 1997: 622-624).

2. Diarrhea: sometimes the stool can have mucus and blood in the third week of radiation (Kim, et al., 1989: 561), and usually occurs when receiving radiation therapy of 3,000-4,000 cGy. The symptoms decrease after receiving radiation for 4-8 weeks.

3. Cystitis: hematuria and infection usually occur when receiving radiation of more than 4000 cGy or on the third to fourth week of radiation. In addition, these symptoms occur periodically. Klee, et al. (2000: 14) found cystitis occurred through 3 months and may be a chronic disease.

4. Inflammation: the mucus of the vagina and cervix during radiation can occur and become infected. Bleeding after radiation can occur for a week or a month. Its effect include a stenosis of the vagina, shortening, rigidity and decreased mucus, high risk of infection and sexual relations disturbances (Center for Disease Control, 1993; Thranov & Klee, 1994: 14-19).

5. Decreased red blood cells: radiation decreases cells in the bone marrow, therefore decreasing red blood cells and platelets. Patients are at risk of infection, fever, fatigue, exhaustion, confusion and bleeding. If the volume of radiation is not too high, the cells will recover in 7-14 days (Gritjareon, S., 1996: 114; DiSaia & Creasman, 1997: 624).

6. Fatigue: this may occur from the first week to the last week of radiation therapy. King, et al. (1985: 55-61) studied 96 cancer patients undergoing radiation therapy of the pelvic area. The results showed severe exhaustion in the fifth–sixth week of radiation therapy; fatigue occurs from anorexia, nausea, vomiting or stress from long term radiation.

7. Anorexia: this occurs when starting radiation therapy and increases in the fourth week of radiation. Anorexia occurs from the disease, stress, and side effects of radiation. These effects are temporary and occur 2-6 weeks after radiation therapy (King, et al, 1985: 55-61).

8. Nausea and vomiting: these are the most common side effects in gynecologic cancer patients. They occur in the first week of radiation therapy. It can be severe in the first week and the last week of radiation therapy. Steginga & Dunn (1997) studied 82 gynecologic cancer patients; the results showed the women

described physical side effects that included fatigue, pain, bladder dysfunction and vaginal problems.

9. Psychosocial changes: common psychosocial problems in gynecologic cancer patients undergoing radiation therapy have mis-beliefs, uncertainty, role changes, low self-esteem, changes of image, dependency, changes in sexual relationships, anxiety and depression (Gritjareon, S., 1995: 167; DiSaia & Creasman, 1997: 622-623). The most common psychosocial problems were anxiety and depression (Steginga & Dunn, 1997: 371-372; Eirlick & Robinson, 1997: 197-205; Thomson & Shear, 1998: 241-7; Bevers, et al., 2000: 302-303).

Late Side Effects of Radiation therapy

Late side effects of radiation therapy occurred after finishing radiation therapy 6-8 week. These side effects included: (Gritjareon, S., 1996: 114-116; DiSaia & Creasman, 1997: 623-624; Gripibool, P. & Tanachai, M. in Leenasamith, W. & Srisupunnadith, S. Eds., 1999: 301-307).

1. Skin changes: gangrene and fibrosis can occur from dilated vessels. This is called telangiectasis.

2. Cystitis in patients who receive radiation over 6,000 cGy, cystitis and hematuria can occur up to 2 years after radiation therapy.

3. Obstruction of the ureter: in rare case fibrosis effects obstruction of the urethral tube.

4.Inflamation of the colon: bloody stool can occur.

5. Gangrene of the head and neck of tibia: it occurs after finishing radiation therapy for many years. At present it is rare because the radiation used is high power radiation.

6. Sexual relation problems: decreased frequency of sexual intercourse. Patients do not want to have sexual relations, or experience pain during sexual intercourse, which can occur due to shortening and stenosis of the vagina, or decreased mucus.

7. Dysfunction of the ovary: this is caused by decreased estrogen and progesterone, amenorrhea and infertility can occur.

Radiation therapy is the treatment of choice in gynecologic cancer patients. It is effective treatment, there are benefits treatment, but at the same time, the radiation has physical and psychosocial side effects, these include acute and chronic. The common side effects include exhaustion, anorexia, nausea, vomiting, diarrhea, polyurea, inflammation of skin and red skin. These effects depended on the volume of radiation and duration of radiation.

1.3.2 Anxiety and Depression in Gynecologic Cancer Patients undergoing Radiation Therapy

In addition to the physical problems from the side effects of radiation therapy, psychosocial problems also occur. These include uncertain of disease, fear of loss of female identity, fear husband won't want them, dependency, anxiety and depression. Most common psychological problems are anxiety and depression

(Steginga & Dunn, 1997: 371-372; Bevers, et al., 2000: 203). The research showed gynecologic cancer patients have anxiety and depression as follows:

Steginga & Dunn (1997: 371-372) studied 82 women of all ages. diagnoses included cervical cancer (45%), uterus (35%), ovarian (20%), and vulva (4%). The results of the study showed the women described the psychological side effects to include anxiety, depression and fear of death.

Eirlick & Robinson (1997: 197-205) studied the effects of psychosocial problems in 157 ovarian cancer patients. The results showed 40.6 percent of women had depression and 26.5 percent were at risk to depression.

Thomson & Shear (1998: 241-7) reported the effects of literature review and found gynecologic cancer patients are at risk for psychological problems e.g. anxiety, depression and adjustment disorder. These symptoms were commonly seen and with a high incidence. These symptoms affected the results of the treatment. The symptoms were continuously, from diagnosis through the study.

Bevers, et al. (2000: 302-303) studied 246 epithelial ovarian cancer patients. The result showed 55 patients (26%) had early stage disease, 181 (71%) had advanced disease, and 121 (49%) had inactive treatment. While 124 patients (51%) were seen for post therapy, surveillance from the study showed 21 percent had depression, and 29 percent had anxiety. Performance status was related to depression and anxiety. In conclusion, clinically significant depression and anxiety maybe more prevalent in patients then previously reported.

Klee, et al. (2000: 5-13) studied 118 cervical cancer patients. The results showed many patients had psychological experiences and social consequences at the end of treatment through 1-3 months and later. Patients continued to think about their illness and treatment throughout the 24 months of the study period, but in the final period, it was increasingly hard to share their worries with others. In conclusion, professionals should be aware of patients' needs to talk about their diseases even after treatment. Patients should receive information about the risk of psychological reactions. The more information they receive about possible symptoms. The better their ability to cope with problems them should they arise.

In Thailand there were the researches on the anxiety and depression of gynecologic cancer patients as follows:

Mala, S. (1991: 52) studied 70 cancer patients undergoing radiation therapy. The results showed patients had anxiety in the first week more than the fourth week at a significant level ($P<0.05$).

Apicharto, A. & Sukgasaem, S. (1994: 20-29) also studied 70 cancer patients undergoing radiation therapy. The results showed patients had anxiety in the first week more than the fourth week with a statistical significance ($P<0.001$).

Srimorakot, P. (1998: 59-69) studied 293 cancer patients undergoing radiation therapy at Siriraj Hospitsal. The results showed cancer patients had moderate state anxiety and trait anxiety level ($x=2.16$, 2.36, $SD=0.53$, 0.62, respectively).

2. Therapeutic group

Definition:

There are many ways of treatment to help patients with a physical illness and also emotional problem and psychological problems. The patients are affected from their physical illness crisis, but it is was not severe or not a mental illness, the patients have an adaptation problem. The objectives of treatment is emphasized for prevention, encourage health education for adaptation to improve relationships, decrease anxiety and increase self-worth (Marram, 1978: 23).

Therapeutic group has basic concepts that develop from psychotherapy group. It emphasizes psychological problems to help patient' s self-understanding, decrease conflict, anxiety, improve behavior and personality. The patients have a chance to ventilate their problems in a group, exchange experiences, support and encouragement. The process of therapeutic group can change one' s self-concept for a good way (Shive, 1998: 67).

Objectives of Therapeutic Group

Marram (1978: 142) said the objectives of therapeutic group are as follows: For the members:

1. To receive information and education about behavior and relations with others by feedback from others.
2. To receive support and encouragement from interpersonal relationships in the group.

3. To decrease anxiety, loneliness, and isolation. It is affected from physical illness and hopelessness of members.
4. To accept their critical life, physical illness, and physical change.
5. To improve their emotional experiences and change the pattern of their personality to correct.
6. To improve and solve some problems and get rid of the bad feelings in each member.
7. To adapt appropriate behavior and strength.

Benefits of Therapeutic Group

The benefits of therapeutic group are included (Marram, 1978: 26-28):

1. Physical patient is adapted during in the hospital and during the illness.
2. Patient increases self-worth and has a good plan.
3. Decreased anxiety and fear in pre-operative patients.
4. Decreased anxiety and social isolation in cancer patients.
5. People in the community receive information on coping skills.
6. Separate mothers and adolescents receive social support.
7. Adolescents in school and elderly in recovery home receive knowledge about prevention of a critical situation.

In addition, the benefits of therapeutic group include increased self-esteem, and receiving information to adapt for well-being (Burgess1981: 567). Niwathchai, A. (1984: 40) said the therapeutic group helps patients to ventilate their problems, conflicts, exchange their experiences, learn to adapt appropriate behavior.

Basic Theory in Therapeutic group

Marram (1978: 112-113) said the theory used in the group is based on basic concepts from individual psychotherapy and group psychotherapy. The theories used in the group are various; choosing the theory depends on the beliefs of the therapist. The basic theories are commonly used in groups, as follows (Marram, 1978: 81-111): 1. Psychoanalytic Theory, 2. Interpersonal Theory, 3. Communication Theory 4. Existential Theory 5. Cognitive Behavioral Theory.

In this research the researcher used a combination of Client-Centered Therapy and Cognitive Behavioral Therapy. From both of the theories the researcher used only some techniques to associate with characteristics of patients and the objectives of this research.

1. Client-Centered Therapy

The person who established this theory was Carl Roger (1961). He believed humans have good expectations, and try to develop themselves to self-actualization. In addition, Roger said that understanding the nature of a person and the principle of client centered theory is important.

Consideration of the nature of humans.

Roger considered the nature of the human as follows (Roger, 1951: 39-40):

1. Humans have competence, worth, dignity. Humans are not happy or indecisive because they are confused, anxious or conflict. These feelings are covered ability for using reason. People use defense mechanisms to help them decrease suffering through using the reason in coping with the problems.

2. Basically, humans are good. Humans tend to develop relationships with others. However, humans can have inappropriate behavior e.g. cheating, selfishness. This is incongruent between self-concept and real experience. Humans must use defense mechanisms. Thus helping the people is decreased to use of defense mechanisms by helping them to re-consider.

3. Humans perceive themselves and their environment from each experience. Each person has different perceptions follow phenomenon field. Thus understanding a person is to try to understand everything and understand person.

4. Humans need love, caring and acceptance from others. It begins from the chilhood. They need love from their mothers, caregivers and love and respect from friends, teachers and relatives.

Importance principles of client-centered theory

Importance principles of client-centered theory include (Roger, 1951: 41-43):

1. Developing Self Concept

Persons who succeed and receive rewards from others have a positive self-concept. On the other hand, if a person fails to do something, they do not get respect from others. They will have low self-esteem and a negative self-concept. This concept supports people to have morals, receive praise, have a positive self-concept, to be proud and have self-confidence.

2. The cause of problems or suffering: The problem occurs from emotions and the feelings of a person which is incongruent between their self-concept with something that they confront. It causes anxiety.

3. People have appropriate adaptation. People do not distort experiences, accept the real situation. People can change their feelings, and change others. The counselor should realize the gap between experiences and self-concept.

4. Helping the client to feel good, to feel threatened and avoid using defense mechanisms is important. The counselor creates rapport with clients, and decreases stress and anxiety.

5. Characteristics of people who should consult acounselor:

5.1 Emotional stress.

5.2 Visit the counselor continuously.

5.3 Express conflict feelings or frustration verbal and nonverbal language.

5.4 Cognitive problem solving or adaptation.

The counselor has basic factors of respect, unconditioning positive regard, empathic understanding and the internal frame of respect of the counselor.

Objectives of Client–Centered Theory

The client should perceive congruence with the real situation and have self-confidence, independent problem solving and good adaptation (Roger, 1961: 40).

Important Techiques in Client–Centered Theory

Attendance, acceptance, reflection of the feeling, Clarifying, Silence.

2. Cognitive Behavioral Theory

Historically, counseling and therapy texts have separated behavioral and cognitive theory and methods. During the past decade, however, those interested in

behavioral change have developed a more cognitive orientation. Simultaneously, the more cognitive theorist have integrated behavioral techniques as part of a broader treatment series (Meichenbaum, 1991: 290-340)

Behavioral counseling and therapy now focus on personal choice and value of collaboration. Furthermore, with the evolution of what is now termed cognitive – behavioral therapy and counseling (CBT), the role of cognition and thought (internal speech) has become importance in the practice of most behavioral clinician. Emotion has gained a new center stage, and CBT has become a major force in counseling and psychotherapy.

Meichenbaum (1991: 292) emphasizes person-environment interaction. He believes behavior to be reciprocally influenced by thoughts, feelings, physiological process, and consequence of behavior. This approach may be contrasted with the behavioral tradition that placed the locus of control in the external environment. Clients assume a much more important role in this newer tradition.

Meichenbaum (1991:295) has been one of the primary forces in moving behavioral therapy to its present cognitive-behavioral orientation. In Meichenbaum' s view, CBT is concerned with helping the client defined problems cognitively as well as behaviorally and with promoting cognitive, emotional, and behavioral change and preventing relapse.

Cognitive Behavioral Techniques

Pinpoint Behavior, Positive Reinforcement, and Charting. 2.Relaxation Training. 3. Biofeedback and Self-Regulation. 4. Systematic desensitization. 5.Modeling. 6. Social Skill Training. 7.Assertive Training.

In this research, the researcher used some techniques included positive reinforcement and relaxation training. Thus the researcher explained the detail in both techniques.

Positive Reinforcement: The systematic application of positive reinforcement to human beings began with an important experiment by Greenspoon (1955 cited by Ivey, 1991: 233). Smile, nods, and the attention of others are particularly reinforcement events. We all seek reinforcement and rewards. Those who provide us with these rewards tend to be our friends; those who do not we tend to ignore or avoid. Money is another powerful positive reinforcement. It maybe said that we work because we are rewarded or reinforced with money. In any applied behavioral analysis that is fully effective, the counselor will be able to note the positive reinforcers and rewards that maintain the behavior.

Relaxation Training (Meichenbaum, 1991: 299-310): Physical body tension is characteristic of many clients who enter counseling or therapy. This tension may show itself in a variety of ways, including statement of fear or tension in social situations; direct complaints of sore, constantly tense muscles; importance and frigidity; difficulties with sleep; and high blood pressure. There is clinical evidence that borderline clients will reduce the number of suicidal gestures and cutting if they are supported with relaxation training program. Most seriously depressed clients can benefits from relaxation training as part of their treatment regimen

Surprisingly, simple teaching people the mechanics of systematic relaxation techniques has been sufficient to alleviate many seemingly complex problems. Rather than search for the reasons that a client is unable to sleep, for example,

behavioral counselor have found it more effective in many case to reach the client relaxation techniques. The simple procedure of training clients in relaxation can be important way to bring totally new views of the world to them. Through finding that they can control their bodies, clients can move on to solve many complex personal difficulties.

For this reason, virtually all counselor and therapists today are becoming skilled at training clients in relaxation techniques. A clients may learn the rudiments of relaxation training in a fifteen-minute session, but careful planing and training are needed if relaxation techniques are to become part of client' s life.

Tension Relaxation Contrast

As a first step, the person who is going through relaxation training should be seated comfortably in a chair or be lying on the floor. An easy, casual manner and good rapport are essential for the counselor

1. Start the procedure by suggesting that the client close her or his eyes and take a few deep breaths, exhaling slowly each time.

2. Tell the client, "we are going to engage in a systematic relaxation program. You will find it' s something you will enjoy, but we must go at your pace. If you find I, m moving too fast or too slowly, let me know. In general, I'll know how you are doing as I can watch your response and will time what I'm doing to where you are. First, I'd like you tighten your right hand-that,s right-hold it tight for about five seconds-one, two, three, four, five. Now let it go, and notice the difference between relaxation and tension. Notice the feeling of ease as you let your hand go. What we'll do is go through your body in much the same fashion, alternatively tightening and letting go of each muscle group. " let's begin".

Continue by having the client tighten and loosen the right hand once again. Remember to have the client notice the difference between relaxed and tense body states. Awareness of muscle tension is one key goal of relaxation training. After you have done the right hand for a second time, continue through the rest of the body in the order suggested in number 4, below. Each time, have the client: 1) tighten the muscle group, 2) hold the tension approximately five seconds, 3) let the tension go, and 4) notice the difference between tension and relaxation. As the training progress, it is not necessary to comment on awareness at each muscle group, but mention awareness of the contrasting feelings from time to time. Occasionally, it is helpful to suggest a deep breath holding it and then exhaling while nothing the contrast between tension and relaxation.

A suggest order for muscle group as follows:

- Right hand, right arm, left hand left arm, neck and shoulder together, neck alone, face and scalp, neck and shoulder again, chest, lung, back, abdominal – stomach
- Entire upper body chest back, lung, abdomen, face, neck, both arms, followed by a deep breath held and then exhaled slowly and gently
- Abdomen stomach again, buttocks, thighs, feet entire body

Complete exercise by suggesting that the client continue to sit or lie a still, enjoying the feelings of relaxation and ease. When he or she wishes, suggest opening the eyes and returning to the world.

Direct Relaxation

Many people prefer this form of relaxation if they find alternative tensing and loosening tiring and/or uninteresting. However, it has been found that the tension relaxation procedure is often a good place to start with the beginner in relaxation. Eventually, many people will want to shift to some form of direct relaxation.

One form of direct relaxation is to use the above order of muscle group and go through them one at a time. However, no tension is used, and the client simply lets each muscle group go, one at time. While practice and experience, the relaxation can be as complete without the practiced tension.

A second form of direct relaxation involves visualization and imagery. Following is one brief example of this approach to relaxation. As in tension relaxation contrast, the client may sit or lie down. In this form of relaxation, the relation between the counselor and client is even more important.

1. Starting the procedure by suggesting that the client close her or his eyes and notice the feeling inside the body. Take sometimes and suggest that the client notice the breath going in and out, the feeling of the chair or floor on the buttocks and back, the feeling of the temperature in the room. All this should be done slowly, easily, and comfortably. The effort focuses on bringing the client to here and now awareness of body experience.

2. Then suggest at the client freely think about a scene in the past where he or she felt as ease and comfortable and happy. Suggest that the client go to the scene and enjoy the feeling and thoughts that go with that happy time, noticing as many details and facts as possible. The client may wish to notice the feeling in the body at that time, such as movement of the air, temperature, and body movements.

Let the client continue with the visualization as long as desired and then become silent, letting him or her determine when to come back.

3. Alternatively, let the client know that he or she will have some time to enjoy the scene and experience, but that you' ll come back in a while. After about ten minutes, gently say that it is time to return to this room. Suggest that the eyes remain closed and that he or she note once again the feelings in the body connected with this room, as in the first part of exercise. Suggest that the eyes may open when the client wishes.

Physical structure of group

Group have to prepare the physical structure for success of the group and it is associated with the goals of group. The physical structure of group to be considered are (Marram, 1978: 128):

Type of treatment is divided into 2 types

1. Closed group consists of member of one group since the beginning is through a closed group.
2. Open group consists of some members that attend or go out and get new members who come at every stage until the group closes.

In this research, a closed group was chosen because the group develops to work through the problem stage and in this movement, the group uses time and group cohesion, and having new members inhibits the development of the group (Yalom, 1985: 277).

Size of Group

For the group, the optimal number of members should be 8-12 persons. (Marram, 197: 128). With an optimal number of members, all can participate in the group and everybody has a chance to share ideas. When the group has only a few members, members can feel anxiety because they have to interact more often. If there are too many members, they cannot all participate (Yalom, 1985: 284-285).

Duration and Frequency of group

In general, the duration of each session is 1 hour to 1.5 hours (Whitaker, 1985: 125; Marram, 1978: 129). If it is more than 1.5 hours the leader becomes exhausted and that affects the effectiveness of the group. The frequency of the group should be at least 1 session / week. Yalom (1985) advises optimal session frequency of 2 sessions/ week, because it helps group continuity and the members cope with the problems each week. The members do not get too exhausted. The whole sessions depends on the goals of the group and the nature of the group, which Trotzer suggested should be least 8 sessions (Trotzer cited in Smithikri, C., 1984 :19). Marram suggested that the group should set each session, time and day in which the members can chose free time (Marram, 1978: 129). In this research, 8 sessions are used for 1-1 ½ hours, and a frequency of 2 sessions / week.

Place

Choosing a room with privacy is important. The therapeutic group in the hospital can use the living room because it is comfortable and the clients can adjust to

the goals and dynamics of the group. In the room there should be a white-board, table, clock, chair, and good air ventilation (Marram, 1978: 128).

Characteristics of the Group

Yalom (1985: 30) suggested about characteristics of group are:

1. Homogeneous group: the patients have the same disease, pathology and the same problem. These patients understand and share experiences and can easily develop close relationships.

2. Heterogeneous group: the members have different characteristics e.g. age, disease, gender, education level and occupation. This group can benefit from increased interaction, exchange of experiences and ideas and concepts from interactions.

Leadership Functions

Marram (1978: 124-127) described four basic leadership functions appropriate for nurse group leaders. These functions pertains to their role regardness of what type of group they lead and regardness of the client composition of their group. They are general and global but give the reader a good indication of what the role of the nurse group can be:

1. The group leader facilitates the benefits of group membership. Certain natural benefits have been ascribed to all groups. Groups are believed to meet people needs for security, for belonging, and for companionship. They are thought to

provide members and opportunity for realization of individual capacities, as well as opportunities to develop a type of community consciousness.

2. The group leader maintains a viable group atmosphere. As was of group membership. Closely related to this function is the ability to maintain a viable group atmosphere in which each person is free to be present, free to talk about what concerns them, and free to experiment with news behavior without severe threat and the leader attempts to ensure a viable atmosphere minus under stress and anxiety.

3. The group leader is to oversee group growth. The leaders have a direct responsibility to the achievement of this goal and to the group's progress in meeting it. They have the responsibility to ascertain the growth or movement of the group toward its goals.

4.The group leader regulates individual member' s growth within the group setting. Individual members frequency proceed toward meeting group objectives at different rates; in addition the leader may formulate specific and more particularized objectives for some members' experience in the group. For this reason he will be concerned with regulating individual member' s growth in the group as well as with enhancing total group movement toward group goals.

Leader Interventions

Group leader intervention emphasized activities or action for helping the members in group. All intervention include (Marram, 1978: 127-140):

1. Outlining and interpreting group objectives.
2. Increasing interaction between members.
3. Encouraging the sharing of common problems.
4. Employing strategies with individuals.

5. Reducing undue anxiety.

6. Summarizing the group' s progress toward its goals.

In the therapeutic group, the goals for the members is to have self understanding, understand the problem, confront the problem to meet the goals of group and techniques in therapeutic group include:

1. Making relationships can be done in many ways e.g. smiling, greeting, introducing one-self, and providing a comfortable environment (Stuart & Sundeen, 1993: 552).

2. Sharing observations refers to observe manner, behavior from the members and interpret verbal responses or non-verbal responses. These reactions help to understand group behavior (Stuart & Sundeen, 1991: 119).

3. General leads or indirect leading. Asking the questions about what things that they want? or stimulation the patients express their problems continuously e.g. Nurse: "Today what does the story that you want to tell me?" Patient: "I would to talk about my family." Nurse: "And then?" (Stuart & Sundeen, 1993: 552).

4. Stimulation. In general, the leader prefer to use this technique in the first session, when the members do not speak. The leader have to stimulate them to speak somethings that they were interested. (Goldberg, et al., 1983: 419).

5. Support. Giving comfort, approval, or acceptance such as Mary "My busted arm has played hack with me. Greeting anything for it has been a federal case. And I'm not one who shows pain easily." Nurse:"This must be pretty infuriating"

Mary: " Well, it really bugs me." In general, the leader support members to cope with their problems.(Stuart & Sundeen, 1991: 120).

6. Giving information. Clarifying or giving information to patients such as "Before start today, I would explain the schedule of group as 1...,2..." (Stuart & Sundeen, 1993: 553).

7. Silence. The use of no verbal or spoken words. When the group is silent, the leader should use silence techniques. This technique affects the members who cannot tolerant. Therefore they have to speak for releasing tension (Stuart & Sundeen, 1993: 554).

8. Listening. The leader concentrate on the clients communication without interruption. (Stuart & Sundeen, 1991: 121).

9. Acceptance. An attitude or a relationship that recognizes an individual 's worth without implying approval of behaviors or personal affection. For example, Mary: " Nurse, I was angry at you for not canceling the session." Nurse: " It 's all right for you to get angry at me, Marty."(Stuart & Sundeen, 1993: 553).

10. Clarifying. The leader helps patients to understand their emotions and feelings clearly. She asks some questions to patients and stimulate them to think about something that they did not think about before. This technique help patients to think accurately. For example, " Please tell me the details about your work" (Stuart & Sundeen, 1991: 118).

11. Reflection. Repeating to clients what they said; mirroring their statement. This technique help patients to understand their emotions and attitudes such as "You feel sorry when you mention your son" (Stuart & Sundeen, 1991: 118).

12 Exploration. A shift from considering one aspect of a situation to considering another such as, Patient: My son decided to leave the business." Nurse: " Tell me how that came about." (Stuart & Sundeen, 1991: 118).

13. Interpretation. Finding or explaining the meaning or significance of the information such as, Patient: "All thing talking is really a pain in the neck." Nurse:" You seem annoyed at all the talking.(Stuart & Sundeen, 1991: 119).

14. Offering self: It means offering yourself to help patients who have anxiety or who needs some help such as, Patient: " I have a headache and feel uncomfortable" Nurse: "Wait a minute, I will bring paracet for you" (Stuart & Sundeen, 1991: 120).

15. Understanding. Indicating verbally or nonverbally that the feelings being communicated by the client are comprehended such as, Patient: "Nurse, I feel frightened about discharge." Nurse: "I can understand your feeling frightened. Leaving the hospital is not always easy." (Stuart & Sundeen, 1991: 120).

16. Reassurance. Offering the client confidence about a favorable outcome through suggestion, persuasive argument, or comparing similar situations. Such as, Patient: "I was afraid to move at first." Nurse: "We are always here to listen to your fear and try and help you work them out. (Stuart & Sundeen, 1993: 556).

17. Confrontation refers to the way for the leader to express her feelings with the patients. This technique uses a direct way about speaking, giving ideas, feelings and behaviors for patient to perceive. The patient can agreement, debate, criticize openly and directly. This technique is chosen the last way, when the leader can not use an other way. The leader do not use negative statements and smile faces

or touching, these manners will help the patients to understand the goals and attitudes of the leader (Stuart & Sundeen, 1991: 120).

18. Summary refers to conclude varies themes or varies ideas in concise form and plus opinions (Wolberg, 1983 : 798; Stuart & Sundeen, 1991: 120).

Group Evaluation

Processing a group is an art. The skill of the processor in both recording the information, organizing it, and presenting it to the group leader affects not only the learning ability of the group leader but also the quality of therapy offered to the clients. Farrell (1989: 20-23) offered the pattern to criticize therapeutic group, including:

1. Client Interaction refers to communication directed from patient to staff or from patient to patient. How many patients participated? What was the content of interactions? Who took on special roles; e.g. did one patient take on the role of therapist, monopolizer, gatekeeper, and scapegoat?

2. Body language refers to what was the seating arrangement? Who sat next to whom? What was the posture, movement? Where there attempts to leave group, to sleep, to turn back on group? What were the facial expressions

3. Staff interventions refers to which aspects of traditional group leadership did the therapists carry out? Did they clarify, make controlling statements, stimulate, problem solve, empathize, use self disclosure, elicit feeling tone, make process comments, facilitate a safe environment? Did they make connections between the patients' problems?, assist patients to learn new ways of relating, reward patient

participation, deal with control issues?, giving information, focusing and summarizing.

4. Structure. This categories refers to rules of group(for example, time of start and finish), acceptable behavior in group, and group format (opening, introductions, rules, and purpose).

5. Feeling tone. This section captures emotions expressed by various group members such as anger, suspicious, hostility, fear, and sadness. Feeling tone is often more accurate than the verbal content in terms of identifying issues.

6. Themes. Identification of content thread. Dominant themes may emerge and can be identified, explored, and problem solved. Frequently recurring themes are: dependency (I am not responsible. I need someone to take care of me).

3. Therapeutic Group and Nursing Interventions for Relieving Anxiety and Depression

3.1 Nursing interventions for relieving anxiety and depression

The research on nursing interventions to relieve anxiety and depression in cancer patients in Thailand is as follows:

Meditation: Pengsuwaun, S. (1985: V) studied the effect of transcendent meditation style on anxiety and depression 73 cervical cancer patients undergoing radiation therapy. The study found the scores of anxiety and depression in the experimental group significantly decreased ($P<0.01$).

Relaxation Training: Sombatgaew, N.(1993: V) studied the effect of relaxation technique on anxiety in 30 neck and head cancer patients. The results

showed the scores of anxiety in the experiment group significantly decreased (P <0.01).

Formal Teaching: Sumlek (1984: 85-86) studied the effects of formal teaching on fear, anxiety and depression in 40 cancer patients. The results showed the scores of fear, anxiety and depression of the experimental group significantly decreased (P<0.01).

Music therapy: Sornboon, A. (2000: 55-56) studied the effects of music therapy on anxiety in 40 cancer patients who received chemotherapy. The result showed the scores of anxiety in the experimental group significantly decreased (P<0.05).

From literature reviewed, there are various methods for relieving anxiety and depression in cancer patient. In addition, there is one method that can decreased anxiety and depression in patient effectively (Marram, 1978: 10; Blake, et al., 1999: 1581-6). This method of therapeutic group decreases anxiety and depression in groups by support, encouragement, warmth, genuineness and helping with increased social skills. The members are respected from the group and this increases self esteem (Lescz, 1990: 370; Poey, 1985: 330-354). The members are free to ventilate feelings or problems, share experiences which helps them to feel universality (Marram, 1978: 154).

3.2 Therapeutic group for relieving anxiety and depression.

There are many research studies the effects of therapeutic group on anxiety in cancer patients and Acquired Immunology Deficiency patients. The results

found significantly decreased in anxiety (Payne, et al., 1997: 65-71; Weillisch, et al., 1999: 1644–5).

Payne, et al. (1997: 65-71) studied the effects of psychosocial intervention group in 40 soft tissue sarcoma patients. The experimental group received support group 8 sessions, 90 minutes weekly session. The theme of group include to give the knowledge about disease, stress management, relaxation training and coping skills. The results showed the patients significantly decreased in anxiety ($t=3.44$, $P<0.01$).

Wellisch, et al. (1999: 1644–5) studied the effects of the intervention group on anxiety in 33 women at high risk to breast cancer. A sample was purposive sampling and divided into 6 groups, 6 sessions, 2.5 hours weekly session. The model of group consisted education and psychosocial components. The results showed an overall significantly decreased in anxiety ($t=-2.17$, $P<0.05$).

There were the researches that reported the effects of therapeutic group on depression significantly decreased (Kelly, et al., 1993: 1679-76; Payne, et al.1997: 65-71 and Wellisch, et al., 1999: 1644–5).

Payne, et al. (1997: 65-71) studied the effects of psychosocial intervention group in 40 soft tissue sarcoma patients. The experimental group received support group 8 sessions, 90 minutes weekly session. The components of group was given the knowledge about disease, stress management, relaxation training and coping skills. The results study showed the patients significantly decreased in depression ($t=5.43$, $P<0.05$).

Wellisch, et al. (1999: 1644–5) studied the effects of the intervention group on depression in 33 women at high risk to breast cancer. A sample were purposive sampling and divided into 6 groups, 6 sessions, 2.5 hours weekly session. The model of group consisted education and psychosocial components. The results showed an overall significantly decreased in depression ($t= -2.24$, $P<0.05$).

Kelly, et al. (1993: 1979-86) studied the effects of group therapy in 68 Acquired Immune Deficiency patients. A sample was randomly assigned to one of three conditions: eight sessions cognitive behavioral group, eight sessions social support groups, or a comparison condition. Cognitive behavioral group composed strategies for reducing depression e.g. skill training, progressive muscle exercise, imaginal and cue control relaxation. Social support group composed to encourage, support the member for expression their feeling about HIV infection, to identify shared problem, concerns fear and hope. The results showed therapy group significantly decreased in depression ($F=4.15$, $P<0.01$).

In psychiatric patients found the effects of psychotherapy group group significantly decreased in depression (Fine, et al., 1991: 78-85).

Fine, et al. (1991: 78-85) studied the effects of psychotherapy group in 66 depressed adolescents. The treatment conditions were two form of short-term group therapy, therapeutic support group and social skill training group. Therapeutic support group included to shared common concern, discuss new way of dealing with different situation and provide mutual support. Social skill training group included a social skill training, recognized feeling in one self and other, assertiveness conversation skill, giving and receiving positive and negative feedback. A sample divided 10 groups, 5 therapeutic support group, 5 social skill training group, a weekly

group, 12 sessions. The results of the study was a significant difference between the therapeutic support group and social skill training group, at post treatment was found for K-SADS ($F=6.73$, $P<0.01$). The group approach significance for CDI score ($F=3.38$, $P<0.10$). On both depression measure, the adolescents in TSG improve more than in the SSG.

In Thailand have a few researches studied the effects of therapeutic group on anxiety in patients and found significantly decreased on anxiety as follow:

Rathanamasthip, N. (1989: 66-69) studied the effect of group counseling based on Client–Centered Theory on anxiety in 8 female cancer patients before radiation therapy. A sample received group counseling 3 sessions, daily group, total 18 hours. The group included to shared common concerns, discuss the ways for solving the problems, health education and mutual support. The results showed significantly decreased in anxiety ($t=8.87$, $P<0.01$).

In addition, the effects of self-help group in cancer patients and the results showed significantly decreased in anxiety

Kongphuntu, S. (1992: 64-65) studied the effects of group process applied the self-help group toward the anxiety level of cervical cancer radiation therapy patients. A sample was 80, divided in the experimental group and control group in equal size. The experimental group received self-help group 7 sessions, weekly group, 45 minutes / session. The group included to giving knowledge about diseases, self-care, express feeling, share experiences, solving problem, mutual support. The results showed significantly decreased anxiety ($t=-19.91$, $P<0.05$).

In addition, there is some research on the effects of the therapeutic group in elderly people and the results showed significantly decreased depression

Satapumirin, R. & Tangworapongchai, J. (1998: 53-58) studied the effects of support group in 24 elderly at Joseph' s home in Khon Kaen. The group included ventilating problems, health education and support. The results showed significant decreases in depression ($X=10.10$, $SD=4.30$, $t= -3.42$, $P<0.05$).

From the research, the effects of therapeutic groups on anxiety and depression in patients have various names. Marram (1978: 22-23) said that a "Therapeutic Group" in a psychiatric group is called Group Psychotherapy. In the physical illness of a person who is in a crisis situation with a psychosocial problem, but not severe enough for mental illness, it is called a "therapeutic group" This group emphasizes patients' adaptation in society, improved relationships, decreased anxiety, and increased self-esteem. In the community it is called group counseling.

In this research, the sample group are gynecologic cancer patients who have psychosocial problems of anxiety and depression; thus the researcher used the term "therapeutic group".

The literature review showed many researches studied on anxiety and depression in gynecologic cancer patients. The results showed the most common psychosocial problems were anxiety and depression. All of these patients may have psychosocial illness or psychiatric problem, and it affects the efficiency of treatment of cancer patients, and they have long term hospitalization. There are many ways to relieve anxiety and depression including meditation, relaxation training, music therapy and therapeutic group. The therapeutic group is one modality that decreases anxiety

and depression effectively. Many overseas studies researched the effects of the therapeutic group on anxiety and depression in patients; the results found significantly decreased anxiety and depression. In Thailand, a few studies examined the effects of therapeutic group on anxiety and depression. The results showed significantly decreases in anxiety and depression, however they used different names such as group psychotherapy, therapy group, support group, counseling group. The name depends on the members of the group, the characteristics of the patients, the place and the theory that they practiced. These groups effectively decreased anxiety and depression.

The conceptual model of the research

When patient perceive their diagnosis of cancer, they perceive cancer as a dangerous disease with difficult treatment (Srimorakot, P., 1998: 1). This situation causes stress from the illness, the perception of the disease, and suffering from the treatment (radiation therapy). These situations cause gynecologic cancer patients to appraise the stimulus as a threat to themselves. They have a state anxiety. This research uses the Spielberger conceptual framework (1972: 483-489), which said that "anxiety" was an emotional condition that occurs from appraisal and perception. The situation occurs at some period of time and facing some situations that causes stress, and the person has anxiety. In addition to anxiety, depression is also a common problem in gynecologic cancer patients. In Zung' s conceptual framework, depression refers a change of emotion e.g. grief, downheart, agitation, confusion, difficulty in making decisions, lack of concentration and change of personality. Physical signs include anorexia, constipation, insomnia and fatigue. Both anxiety and depression are

psychosocial problems that most commonly occur in gynecologic cancer patients (Hosaka & Aokai, 1996: 355;& Steginga & Dunn, 1997: 371-372). It affects their cognitive thinking process, psychological behavior and physical stress reaction. These symptoms will vary depending on the perception and cognitive thinking of each person.

Therapeutic group is the modality to help people who suffer or who have psychosocial problems. Therapeutic group emphasizes patients to express their feelings and ventilate problems. The leader or co-leader helps the members of the group by mutual help, support and encouragement, in a warm atmosphere, for the members to promote self-understanding, increase self-worth, increase self-esteem, decrease frustration, anxiety and depression through appropriate adaptation. The conceptual framework of therapeutic group is based on a combination theory between client-centered theory and cognitive behavioral theory. The members of a therapeutic group are encouraged and supported by the leader through acceptance, empathic understanding and genuineness. This helps the members to express problems freely and relief from tension; the member realizes that they are not the only people to face such a problem, but other members also face similar situations, which is the core of client centered theory. The member receives positive reinforcement from the leader and co-leader; this action helps the members to increase self-worth and self-esteem, and relieve depression. In addition, the leader helps the member to release anxiety by using relaxation techniques based on cognitive behavioral theory. Relaxation techniques, a technique of cognitive behavioral theory, can reduce tension, fear, anxiety and depression effectively (Meichenbaum, 1991: 290). Thus, the researcher's use of a combination theory in a therapeutic group undergoing radiation therapy is

suitable for this research, because all of these patients have psychosocial problems (anxiety and depression). The researcher can adjust to fit with the members and the objectives of the therapeutic group. Marram said that multidimensional approaches have benefits to patients and the therapist is free to use and adjust the methods, and objectives, related to each member (Marram, 1978: 112).

Psychiatric and mental health nurses have many roles such as a caring role for comfort, and general counseling for patients. In addition, therapeutic group is one important role, because it can help many patients relieve stress, and decrease anxiety and depression. The conclusion of the conceptual model of this research is as follows:

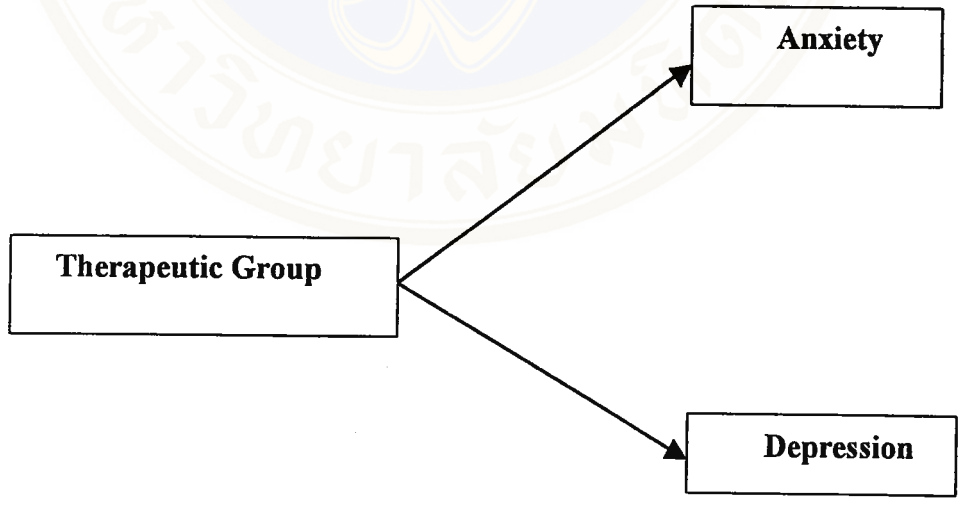

Figure 3: Conceptual model of this research

CHAPTER III

MATERIALS AND METHODS

Design of the study

This study is a quasi-experimental research, two-group pretest and posttest design. The purpose of this study was to examine the effects of therapeutic group on anxiety and depression in gynecologic cancer patients undergoing radiation therapy.

Population and sample

The population were gynecologic cancer patients who received radiation therapy at the Out-patient Department, Radiation Unit, Srinagarind Hospital, Faculty of Medicine, Khon Kaen University.

A sample of 40 persons was purposively selected according to the following

Inclusion criterias:

1. Were not at the end stage of cancer disease.
2. Undergoing radiation therapy during the first week.
3. Age range between 30-70 years.
4. The score of anxiety and depression before the study was 41 points or over

Exclusion criteria

Attend the therapeutic group less than 6 sessions.

The sample was randomly assigned to the control group or the experimental group in equal size.

Settings

This research was done at the Radiation Unit, Srinagarind Hospital, Faculty of Medicine, Khon Kaen University. This unit provides daily service during 08.30 am.-6.00 pm. Each patient receives radiation therapy every day continuously until complete course of treatment. Each week the patients have to check with the doctor during radiation therapy. The patient waits to see the doctor between 09.00-12.00 am., then they receive radiation therapy in the afternoon. In cases of severe side effects from radiation therapy, they cannot receive it continuously; the doctor has to off radiation therapy temporarily. When side effects from radiation therapy are relieved, the patient receives radiation therapy until the course of radiation therapy is completed.

Research Instrument

The research instruments were the therapeutic group plan, State Anxiety Inventory (STAI from X-1), and Zung Self-Rating Depression Scale.

1. Demographic Data Form

1. A demographic data form was used to collect descriptive information. It is divided into 2 parts:

Part I: includes age, marital status, family income, type of medical expense, place for during radiation therapy.

Part II: includes diagnosis, staging, volume of radiation per day, the total volume of radiation therapy and type of treatment.

2. Therapeutic group plan: It is a modality for helping the patients, which is a combination of techniques used in client–centered theory and cognitive behavioral theory. Techniques used in this study were attendance, acceptance, reflection of the feeling, clarifying and silence. The leader's attitudes toward the patients were respect, unconditionning positive regard, empathic understanding and genuineness, The techniques of cognitive behavioral theory used in this study were positive reinforcement and relaxation training

The process of the therapeutic group is composed of 3 phases; including initial phase, working phase, and terminal phase.

Initial Phase

This is the phase of choosing the members, based on the inclusion criteria of the sample group. The researcher gives information about the objectives of the therapeutic group, the process of the group, and explains about the demographic data, State Anxiety Inventory (X-I), and Zung Self-Rating Depression Scale (the sample group completes both questionnaires in step of the inclusion criteria). The leader introduces herself to the members, the co-leader introduces herself and the members introduce themselves to the group. The leader creates relationships, gives information about the therapeutic group plan and the members and expresses their feeling.

Working Phase

This is the time for the members to ventilate their problems and to cope with the problems by emphasizing psychosocial problems.

Terminal Phase

This is the time for preparation of the members to close the group. The leader has to prepare the members to be ready for separation.

Structure of the Therapeutic Group

Physical structure of the therapeutic group

Place: Private room at residential house, Srinagarind Hospital, Khon Kaen University.

Duration / number of sessions: 1-1 ½ hours per session; a total of 8 sessions.

Frequency: 2 sessions /week (Tuesday & Thursday).

Equipment for voice recording: tape recorder and cassette tape .

Leader and Co-leader

The researcher was the leader of the therapeutic group. The leader has experience in the psychotherapy group at Ramathibodi Hospital and Somdej Chao Pra Ya Hospital and practiced therapeutic group with cancer patients at the radiation unit, Srinagarind Hospital for 4 weeks and practiced therapeutic group in gynecologic cancer patients at Ramathibodi Hospital for 1 week before data collection.

Functions of the leader include opening the group meeting, giving information about the characteristics of the group, the pattern of the group, processes of group, coping with problems, through support, encouragement the members, and close the group.

The co-leader has experience as the co-leader of the therapy group at Srinagarind Hospital for 2 years at Khon Kaen University. Co-leader's functions are tape recorded, stimulate the members to participate in the group through support and encouragement of the members.

Group members

The members were 20 gynecologic cancer patients undergoing radiation therapy.

Therapeutic Group Plan Validation

The therapeutic group plan was determined the quality by the researcher led the therapeutic group plan to determine the content validity by 3 experts (psychiatrist, psychologist and psychiatric and mental health nurse instructor at Ramathibodi Nursing School). The researcher improved the plan according suggestions and had the experts recheck again. All the experts agreed in this checking, then the researcher led therapeutic group plan to use with cancer patients undergoing radiation therapy.

3. State Anxiety Inventory or X-I (Spielberger, 1970). This instrument was translated into Thai by Kochpucdee, N. & Worakitpocatorn, S. & Nitsaisuk, M. It was used to measure state anxiety, which it is the feeling that is related with lack of calmness, and safety or threatening situations. It is a rating scale consisting of 20 items, ten are anxiety-present items, including item no 3, 4, 6, 7, 9,12, 13, 14, 17 and 18. Each item is given a weighted score of 1 to 4 that ranges from not at all to very much so. A rating of 4 (very much so) means the presence of a high level of anxiety. The remaining 10 items are anxiety-absent items, including item no 1, 2, 5, 8, 10, 11, 15, 16, 19 and 20. A high

rating of 4 (very much so) means the absence of anxiety and the scoring weights are reversed as follows:

Rating scale	anxiety-absent	anxiety-present
Very much so	1	4
Somewhat	2	3
Moderate so	3	2
Not at all	4	1

Total scores of 20 items are 20-80, low scores mean low anxiety and high scores mean high anxiety.

Validity and Reliability of State Anxiety Inventory

Spielberger, et al. (1970) determined the State Anxiety Inventory (X-I) by using construct validity (Known group technique). The sample group were 197 undergraduate students of Florida University. The group is divided into 4 groups. The groups included stress from watching a movie, testing, no stress at a normal time and the last group was relaxation. The results found the mean score of the sample groups were statistically significant difference in each group and had a score from 4 situations 50.03, 43.01, 36.99 and 32.70, respectively in the male students. The female students had a score 60.94, 43.69, 37.24, respectively. These scores showed this instrument can be divided into groups of people who have different anxiety.

Reliability of X-I, Spielberger, et al. (1970) determined this instrument by using internal consistency from the study of the same group. The Cronbach coeffiency of four groups of students in the male students were 0.93, 0.92, 0.89 and 0.89, respectively, and

the Cronbach coefficiency in the female students were 0.93, 0.93, 0.91 and 0.83, respectively.

In Thailand, State Anxiety Inventory was translated into Thai Language by Kochpucdee, N. & Worakitpocatorn, S. & Nitsaisuk, M. and the experts examined face validity. The reliability of State Anxiety Inventory (X-I) in Thai version was determined the reliability (test retest method) by Sompraserth, C. (1981) which the subjects were the first year of science students, Faculty of Science, Mahidol University during year 1980-1981. These students have been the system randomization did not repeat with the sample in the research. After 24 days, Sompraserth, C. was determined reliability by using Pearson Product Moment Correlation Coefficient (r) = 0.27 (from the STAT show X-I have r= 0.16-0.54). The reliability was low because the natural of State Anxiety Inventory depend on different situation, therefore physical reaction in each situation was vary on intensity of stimulus. Spielberger, et al. (1983: 13) suggested that measures of internal consistency such as the alpha coefficient provide a more meaningful index of the reliability of S-Anxiety scales than test-retest correlations.

In this research the researcher determined the quality of the State Anxiety Inventory with 30 gynecologic cancer patients undergoing radiation therapy and reliability by using Cronbach coefficiency was 0.87.

4. Zung Self-Rating Depression Scale (Zung, 1965: 65-66) was translated into Thai by Smitagestrin, S. (1985). The characteristics of inventory for self choosing the answer, it is the rating scale consisting of 20 items, ten are worded symptomatically positive, including item no 1, 3, 4, 7, 8, 9, 10, 13, 15 and 19, each item is given a weighted score

of 1 to 4 which a rating of 4 (Most of the time) means the present of high level of depression and the remaining are worded symptomatically negative, including item no 2, 5, 6, 11, 12, 14, 16, 17, 18 and 20. Each item is given a weighted score of 1 to 4 which a rating of 4 (Most of the time) means the absence of depression, the scoring weights are reversed. Conclusion the scoring weighs are:

Rating scale	**symptomatically negative**	**symptomatically positive**
Most of the time	1	4
Good part of the time	2	3
Some of the time	3	2
A little of the time	4	1

Total scores from 20 items are 20-80, low scores mean low depression and high scores mean high depression

Validity and Reliability of Zung Self-Rating Depression Scale

The validity of this instrument, Zung & Derham (1965 cited in smitragatrin, S., 1985: 24) determined this instrument by using construct validity (known group techniques). The result showed the scores of depressive disorder patients were different from the control group significantly.

The reliability of this instrument, Zung determined by using correlation with MMPI, all scale used Pearson correlation coefficiency and the correlation was 0.70 (Zung, et al., 1965: 515 cited in Smitragatrin, S., 1985: 24).

In Thailand, the Zung Self–Rating Depression Scale was translated into Thai by Smitragatrin, S. (1985) then the content validity was determined by 2 experts.

The reliability of the instrument of Smitragatrin, S. (1985) was determined by using it with 300 leprosy patients and the Cronbach coeffficiency was 0.83.

In this research, the researcher determined the instrument by using it with 30 gynecologic cancer patients undergoing radiation therapy; the Cronbach coefficiency was 0.87.

Protection of Human Rights

The human rights of the subjects were respected (Appendix A and B). Eligible subjects were individually approached to participate in this study. The study objectives, the data collection processes, expected research outcomes, subjects rights, the type of questionnaires, and the rights to refuse to participate in this study were explained. The subjects who agreed to participate were assured that the data would be kept confidential and reported as group data. Verbal explanations were given when they were questions about the study.

Data Collection

1. The researcher surveyed names of gynecologic cancer patients (cervical cancer, endometrial cancer, cancer of the uterus, ovarian cancer and vaginal cancer) undergoing radiation therapy in the Radiation Unit, Out-patient case at Srinagarind Hospital, Faculty of Medicine, Khon Kaen University.

2. Choosing the sample group followed the inclusion criteria (p 70) by checking from patient charts. The researcher introduced herself to the patients and explained the objectives of the research, asked for participation in taking the State Anxiety Inventory

(X-I) and Zung Self-Rating Depression Scale. The researcher gave both instruments to each patient or group of patients after radiation therapy, explained the way to answer the instrument in a private place or room at the Radiation Unit; the time for completing instrument was about 20-30 minutes. The researcher collected the instruments and checked the completeness of the answers; if not complete, they were returned to the patient for answering and collection. In cases who could not read question, but could understand the Thai language, the researcher read the questionnaire for the patient 2 times and the patient chose the answer. If the patient got a score of 41 or more they were included in the sample group; if they did not get a score to 41 or less they were excluded.

3. Simple random sampling to choose which study group first; the control group was first. Therefore, the researcher included 20 persons first in the control group, and last, 20 persons in the experimental group; the member of experimental group 20 persons were divided into 3 group, group1 had 8 members, group 2 had 7, and group 3 had 5 members. The study was begun in the control group first and then in the experimental group, to prevent contamination of data. The procedure in each group was as follows:

Control Group

1. Information was given about the pattern of the study, time, duration, and place and cases were asked to participate in the research. When the samples were willing to participate, the researcher asked the patients to sign their names in human rights for research population form.

2. The control group received regular nursing care (regular nursing care is giving leaflets about self-care during radiation therapy, health education to persons or to groups

about cancer disease, self-care during radiation and questions for patients who have doubts by the doctor, nurse and persons at the Radiation Unit). Radiation therapy was finished anxiety and depression (post-test) were evaluated after receiving regular nursing care for 4 weeks on the last day of receiving regular nursing care. The method of answering the questionnaire, the time, checking the answer completely were done the same as pre-test. The place for taking both instruments was the private room at the Radiation Unit.

Experimental Group

1. Information was given about the pattern of the study, time, duration, and place. The researcher asked the sample to participate in the research. If the sample was willing to participate, asked to sign their names in human rights for research population form.

2. The researcher was the leader and processed the therapeutic group, and had the helper who was the co-leader. Each session was composed of 3 phases: the initial phase, working phase and terminal phase. The duration of each session was 60-90 minutes; twice weekly sessions (Tuesday and Thursday), a total of 8 sessions; the duration of each group was for 4 weeks; the researcher appointed the time for taking the therapeutic group as 4.30-6.00 p.m. Therapeutic group were taken in group 1 until completely then group 2 and group 3, respectively. The co-leader helped to tape-record the process of the groups for all sessions in order to use it for evaluating the process of the group. In addition, the co-leader helped the leader to stimulate the members for participation in the group, support and encourage the members. The procedures of therapeutic group were:

Session 1

Objective

1. To introduce the leader, co-leader and the members.
2. To give information: objective, norm of group and members' roles.
3. To give information: the pattern of the group, session, duration, frequency, and place
4. To give information: the benefits of the therapeutic group.
5. To create a close relationship with the members, and co-leader and create a relaxed atmosphere.
6. To survey important problems and needs of the members.
7. To evaluate the session about their feelings, feeling about others e.g. members, leader and co-leader and suggestions for the next session.

Leader's activities

1. The leader greeted, introduced the leader, co-leader and the members.
2. The leader gave information about the objective, norms of the group and members' roles.
3. The leader gave information about the pattern of the group, sessions, frequency, duration and place for the group.
4. The leader asked the members to tell about their expectations of the group, then the leader concluded their expectations.
5. The leader encouraged the members to participate, and have good relationships and talked about the general information of each member:

- First name, surname, nickname.
- Brief history, age, birthplace, education level, marital status, occupation, present illness.
- Hobby; by the leader conclusion and link in the same part.

1. The leader stimulated the members to tell about important problems in the present and summarized members' problems.

7. 15 minutes for group evaluation:

7.1 The leader stimulated the members to tell about their feelings about participating in the first session, feeling about other members, the leader and co-leader. The leader has to accept each patient, feeling both negative and positive aspects (unconditioning positive regard) and accept the suggestions for the leader to improve next time. If the suggestions can not provide improvement, the leader should accept them and not argue.

7.2 The leader gave encouragement, reinforcement to all the members.

8. The leader appointed the next session.

Session 2

Objectives

1. To review objectives, norms of group and members' roles.
2. To relieve members' tension.
3. To review previous session.
4. To give information about the steps of the group.

5. To conclude the group and evaluate the group through give information about date, time for the next session.

Leader's activities

1. The leader greeted and stimulated the members to review the objectives and norms of the group through the members' roles (use 5-10 minutes).
2. The leader warmed up using deep breathing exercise and used both hands associate and extended ahead with long exhalation and used repetition 5 times and then left extended 5 times and right extended and extended over head 5 times (use 5-10 minutes).
3. The leader reviewed the past group session.
4. The leader gave information about the steps in this group process, which include step 1: Expression of feelings or presentation of the problems,

   Step 2: Asking the questions,

   Step 3: Suggesting the way to solve the problems, then choosing members to present problems. In each session, 1-2 persons /session presented the problem if there are too many persons, they had to vote for which problem they wished to discuss.
5. 40 –60 minutes for

   5.1 The members presented the problems (use 10- 15 minutes).

   5.2 The members asked questions after presenting the problems (10-15 minutes).

   5.3 The members suggested ways to solve the problems (use 10-15 minutes).

In case the members had questions about disease, treatment and self care, the leader added knowledge about disease, treatment and self-care, according to their problems (15-20 minutes).

6. The leader used 15 minutes for:

6.1.Conclusion of this session.

6.2 Group evaluation: atmosphere of group, self-feeling, feeling about other members and leader and co-leader.

6.3 Giving reinforcement.

7. The leader gave information about the process of the group in the next session and appointed the next session.

Session 3-6

Objective

1. To review objectives, norms of group and members' roles.
2. To relieve anxiety and relax and create the atmosphere of the group.
3. To ventilate problems or present unhappy problems.
4. To ask any questions about things that they do not understand.
5. To relax, share experiences and ideas.
6. To make suggestions in the group about the way to solve problems.
7. To evaluate the group as follows: Group atmosphere.

- Their feelings about themselves individually, others and the leader and co-leader and suggestions about the next session.

8. To appoint the next session.

Leader's activities

1. The leader greeted the members, reviewed objectives of the group, norms of the group and members' roles (5-10 minutes).
2. The leader warmed up using relaxation technique, as follows:

   Session 3: deep breathing exercise slowly 10 times and muscle relaxation (see detail in Appendix F p.133).

   Session 4: deep breathing exercise slowly 10 times and muscle relaxation (see detail in Appendix F p.133)

   Session 5: using relaxation technique the same as session 2.

   Session 6: deep breathing exercise slowly 10 times and visualization.(see detail in Appendix F p.140).
3. The leader stimulated the members to present problems; if there are too many members who want to express their feelings, the members will vote.
4. The leader stimulated the members to ask any questions about their own problems.
5. The leader stimulated the members to suggest ways for solving problems, and received support and encouragement from the members, leader and co-leader.
6. The leader encouraged the members to participate and express the ideas freely by the leader having an empathic understanding, unconditioning positive regard, warmth, and genuine manner.
7. The leader concluded and evaluated the group.
8. The leader appointed the next session.

Session 7

Objectives

1. To review the objectives, norms of the group and members' roles.
2. To relieve anxiety and relax, and to create the atmosphere of the group.
3. To ventilate problems or present unhappy problems.
4. To ask any questions about things that they do not understand about their own problems.
5. To make suggestion about the way to solve the problems.
6. To relax, share experiences and ideas.
7. To evaluate the group as follows: group atmosphere, individual self-concept, others and the leader and co-leader, suggestions about the next session.
8. To prepare members for termination of the group and to appoint the next session.

Leader's activities

1. The leader greeted the members, reviewed the objectives of the group, norms of the group and members' roles (5-10 minutes).
2. The leader warmed up by using deep breathing exercise slowly 10 times and muscle relaxation (5-10 min).(See the step in Appendix F p.130).
3. The leader stimulated the members to present the problems and if too many members want to express their feelings will vote.
4. The leader stimulated the members to ask any questions about their own problems.

5. The leader stimulated the members to suggest ways for solving the problems, and members received support and encouragement from the members, leader and co-leader.
6. The leader encouraged the members to participate and express their ideas freely by the leader having an empathic understanding, unconditioning positive regard, warmth, and genuine manner.
7. The leader concluded and evaluated the group.
8. Before closing the 7th session, the leader reassured the members that they can ask for help or consult nurses available when they feel anxious or unhappy. then appointed the next session.

Session 8

Objectives

1. To relax and create the group's atmosphere
2. To evaluate what positive progress in each member.
3. To evaluate the group about: group' s atmosphere, express feelings to terminate freely, to other members, leader and co-leader, the benefits that they receive from the group, suggestions to improve the group and to close group.

Leader's activities

1. The leader warmed up by using relaxation technique (deep breathing exercise combined with visualization); used for 10-15 minutes. (See the step in Appendix F. p.137).

2. The leader stimulated the members to observe and discuss how each member had changed since the first group to terminate the group, and tell about the good characteristics of each member so that the members of the group observed and gave mutual encouragement (use 30-40 minutes)

3. The last phase used 30-40 minutes:

3.1 The leader stimulated the members to evaluate the group about

- Group' s atmosphere.
- Stimulus of the members to express feelings to terminate the group freely, feeling about other members, the leader and co-leader.
- The benefits that they received from the group.
- Suggestions for improving the group.

3.2 The leader terminated the group by saying "thank you" to all members and closed group with all the members to hold hands in the middle of group, to exchange mutual support, and encouragement and say good bye.

4. Evaluation the therapeutic group had taken place after group session 8 by the co-leader distributing the State Anxiety Inventory and Zung Self-Rating Depression Scale to the experimental group (post-test) immediately after therapeutic group session 8 (the method for distributing both instruments, the same as the pretest).

Summary of data collection was presented in figure 4.

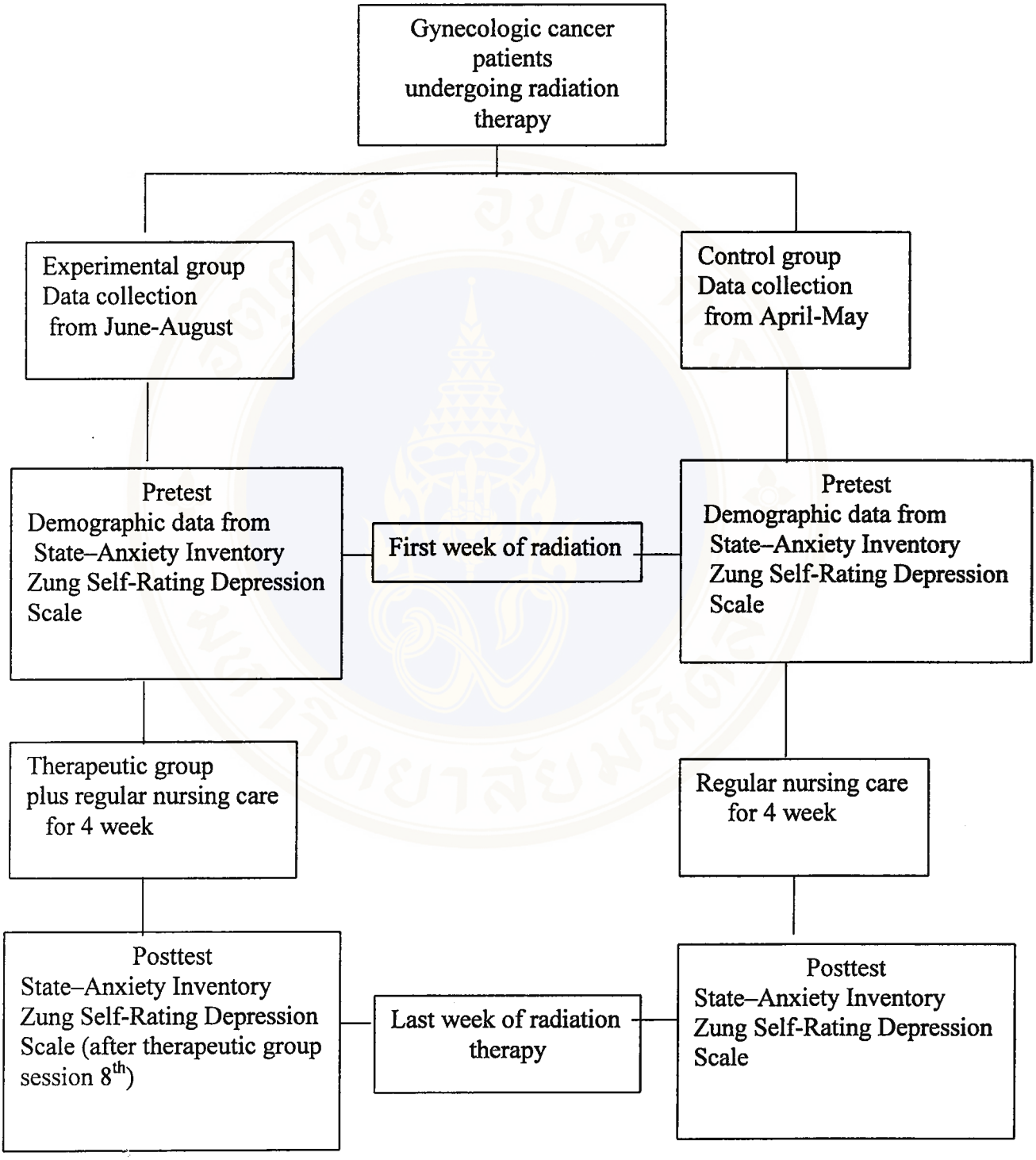

Figure 4. Data collection procedures

Data Analysis

The data was analyzed by SPSS according to the followings:

1. The demographic data was analyzed by frequency and percent.
2. The ANCOVA was used to compare the difference in anxiety between the control and experimental group.
3. The ANCOVA was used to compare the difference in depression between the control and experimental group.

CHAPTER IV

RESULTS

The results describe the effects of therapeutic group on anxiety and depression in gynecologic cancer patients undergoing radiation therapy. The results are presented according to the research objectives as follows:

1. Description of demographic data.
2. To compare the difference in anxiety between the control group and the experimental group after controlling pretest score of anxiety.
3. To compare the difference in depression between the control group and the experimental group after controlling pretest score of depression.

Demographic data

Demographic data of the sample group is divided into the experimental group 20 persons, and 20 persons in the control group. This data is divided as diagnosis, staging of disease, age, occupation, marital status, family income, volume of radiation /day, total volume of radiation, type of treatment, type of medical expense and place for during radiation therapy.

Table 1. Frequency (f) and percentage (%) of the gynecologic cancer patients classified by patients' characteristics

Patients Characteristics	Experimental group (N=20)		Control group(N=20)	
	f	%	f	%
Diagnosis				
Cervical cancer	19	95.0	18	90.0
Endometrial cancer	-	-	1	5.0
Ovarian cancer	-	-	1	5.0
Vaginal cancer	1	5.0	-	-
Staging of Disease				
Stage 1	2	10.0	4	20.0
Stage 2	11	55.0	7	35.0
Stage 3	7	35.0	9	45.0

Patients' Characteristics	Experimental group (N=20)		Control group (N=20)	
	f	%	f	%
Age (years)				
30-40	1	5.0	3	15.0
41-50	7	35.0	4	20.0
51-60	9	45.0	11	55.0
61-70	3	15.0	2	10.0
Occupation				
Government officer	-	-	1	5.0
Merchandize	-	-	1	5.0
Housewife	4	20	7	35.0
Employee	2	10.0	2	10.0
Agriculturist	14	70.0	9	45.0
Marital Status				
Divorce	1	5.0	1	5.0
Widow	2	10.0	2	10.0
Married	17	85.0	17	85.0
Family Incomes (Baht / Month)				
< 5,000	19	95.0	17	85.0
5,001 – 10,000	1	5.0	2	10.0
15,001 – 20,000	-	-	1	5.0

Patients Characteristics	Experimental group (N=20)		Control group (N=20)	
	f	%	f	%
Volume of radiation/Day				
151- 200 cGy	20	100.0	20	100.0
Total volume of radiation				
4,501- 5,000 cGy	18	90.0	20	100.0
5,501- 6,000 cGy	2	10	-	-
Type of treatment				
Radiation only	20	100.0	14	70.0
Radiation combined with Surgery	-	-	5	25.0
Radiation combined with Chemotherapy	-	-	1	5.0
Type of medical expense				
Government payment total	1	5.0	3	15.0
Self payment	3	15.0	1	25.0
Social welfare	5	25	6	30.0
Health insurance	11	55.0	10	50.0
Place for during radiation therapy				
Home	-	-	6	30
Rent house	2	10.0	1	5.0
Relatives home	18	90.0	13	65.0

From Table 1. The result revealed above ninety percents of gynecologic cancer patients in both groups were cervical cancer (experimental group 95%, control group 90%). The majority of the study subjects were staging 2 (experimental group 55%, control group 35%), with an age range were 51-60 years (experimental group 45%, control group 35%). Seventy percent of the experimental group were agriculturists, and forty-five percent of the control group, with a family income < 5,000 Baht / Month (experimental group 95%, control group 85%). Eighty-five percent of both groups were married. The majority of the study subjects were treated by radiation therapy (experimental group 100%, control group 70 %). Fifty-five percent of the experimental group were reimbursed their medical expenses from their health insurance, and fifty percent of the control group.

Objective 1. To compare the difference in anxiety between the control group and the experimental group after controlling pretest score of anxiety.

The anxiety scores of the gynecologic cancer patients in the control group and the experimental group, before and after the study. The pretest mean anxiety scores of the control was 48.65, and the experimental group was 50.15, whereas the posttest mean anxiety scores of the control group was 46.15, and the experimental group was 40.35 (Table 2).

The pretest score of anxiety of the gynecologic cancer patients in the experimental group was statistically significant relation to the posttest score of anxiety ($F=5.00, P<0.05$) (Table 3). Anxiety of the gynecologic cancer patients in the

experimental group was statistically significant lower than the control group after controlling the pretest scores of anxiety (F=11.72, P<0.05) (Table 3).

Table 2. Mean, Standard Deviation (SD), and Range (Min-Max) of anxiety scores of the gynecologic cancer patients in the control group and the experimental group before and after participated in therapeutic group.

Group	Time	Min – Max	Mean	SD
Control	Before	41- 66	48.65	6.01
	After	35-62	46.15	7.23
Experimental	Before	32-63	50.15	6.27
	After	30-48	40.35	4.53

Table 3. Comparison of the difference in anxiety between the control group and the experimental group by using ANCOVA (N=20).

Sorce of variance	df	SSy	MSy	F	p
Covariate	1	155.98	155.98	5.00	<.05
Group	1	365.73	365.73	11.72	<.05
Residual	37	1154.32	31.20		
total	39	1676.03	552.91		

$R^2 = .289$, $p<.05$

Objective 2. To compare the difference in depression between the control group and the experimental group after controlling pretest score of depression.

The depression scores of the gynecologic cancer patients in the control group and the experimental group, before and after the study. The pretest mean depression scores of the control group was 45.40 (Table 4), and the experimental group was 48.30 (Table 4), whereas the posttest mean depression scores of the control group was 41.90 (Table 4), and the experimental group was 36.75 (Table 4).

The pretest score of depression of the gynecologic cancer patients in the experimental group was statistically significant relation to the posttest score of depression ($F=12.48$, $P<0.001$) (Table 4). Depression of the gynecologic cancer patients in the experimental group was statistically significant lower than the control group after controlling the pretest scores of depression ($F=25.86$, $P<0.001$) (Table 5).

Table 4. Mean, Standard Deviation (SD), and Range (Min-Max) of depression scores of the gynecologic cancer patients in the control group and the experimental group before and after participated in therapeutic group.

Group	Time	Min – Max	Mean	SD
Control	Before	39-54	45.40	4.98
	After	33 - 49	41.90	4.14
Experimental	Before	42-58	48.30	4.61
	After	25-45	36.75	4.63

Table 5. Comparison of the difference in depression between the control group and the experimental group by using ANCOVA (N=20).

Sorce of variance	df	SSy	MSy	F	p
Covariate	1	184.97	184.97	12.48	<.001
Group	1	383.48	383.48	25.86	<.001
Residual	37	548.58	14.83		
Total	39	1117.03	583.28		

$R^2 = .451, p<.001$

CHAPTER V

DISCUSSION

The discussion is presented according to the research hypotheses, as follows:

1. Anxiety of the gynecologic cancer patients undergoing radiation therapy in the experimental group is lower than the control group after controlling pretest score of anxiety.
2. Depression of the gynecologic cancer patients undergoing radiation therapy in the experimental group is lower than the control group after controlling pretest score of depression.

1. Anxiety of the gynecologic cancer patients undergoing radiation therapy in the experimental group is lower than the control group after controlling pretest score of anxiety.

The result revealed after controlling the pretest score of anxiety, anxiety of the gynecologic cancer patients of the experimental group was statistically significant lower than the control group ($\bar{X}$=40.35, SD.=4.53, F=11.82, P<0.05) (Table 3). This result supported hypothesis 1 and the best explanation for this finding is that the anxiety of the members who received therapeutic group plus regular nursing care was lower than the members who received regular nursing care in the control group. There have been studies that support this study. Kongphuntu, S. (1992: V) studied the effects of a self-help group in cervical cancer undergoing radiation therapy. The result showed significantly decreased in anxiety ($\bar{X}$=27.50, SD=3.44, t =-19.19, P<0.001).

The study of Kongphuntu was similarity to this study in a sample group, however, there were distinct differences in the instrument and components of the group. This group consisted of giving information about disease, self-care, expressing common concerns and receiving support and encouragement. The distinct difference in components of the group is the lack of relaxation techniques. However, the finding and benefits from both studies were similarities, including the finding that therapeutic group significantly decreased anxiety, the members felt relaxed, received information about disease and self care, and had increased hopefulness and self-esteem.

The present study combined relaxation techniques, including deep breathing exercise, muscle relaxation and visualization. The relaxation technique is one technique of cognitive behavioral therapy; Meichenbaum said that relaxation training can decrease fear, tension and anxiety (Meichenbaum, 1991: 229). Relaxation technique is in terms of demobilization of the sympathetic nervous system and activation of the parasympathetic nervous system. When the parasympathetic nervous system is mobilized, the individual's level of general arousal is reduced (Benson, 1975: 125). According to the study of Wellisch, et al. (1999: 1644-5), they found the therapeutic group model effective in reducing symptoms of reactive anxiety in women at high risk for breast cancer ($t=-2.17, P<0.05$). Indeed, the study of Wellisch, et al. had some similarities to this study, including the instrument (State Anxiety Inventory), and components of the group (including giving information about disease, self care during radiation therapy, expressing common concerns, sharing experience, support, encouragement and relaxation training). There were, however, difference in the sample group and the total sessions (6 sessions). The study of Payne, et al. (1997: 65-

71) that found after participation in a supportive group, including expressing feeling, giving information about disease, and self-care, stress management, relaxation technique and coping skill, there was significantly decreased anxiety ($t=3.44$, $P<0.01$). In addition, they found the therapeutic group should emphasize giving information and emotional support, because it effects are increased in the emotional and social adaptation of patients, decreased psychosocial problems, and received satisfaction from getting peer support and emotional encouragement. There were some similarities between the study of Payne, et al. and this study, including the components of the group and the total number of sessions (8 sessions). There were, however, distinct differences in a sample group and the instrument. Indeed, the total number of sessions in the study of Wellisch, et al. was different from the study of Payne, et al. and this study. Hales, Yudssky and Talbaott (1994: 1146) said the total number of sessions in special group for patients who had physical illness were 6-12 sessions. Thus the total number of sessions in these studies were in the optimal range.

This study used combination approaches between client centered theory and cognitive behavioral therapy. The researcher used combination approaches because previous studies that used a multidimensional approach could decrease anxiety significantly (Payne, et al, 1997: 65-71; Wellisch, et al, 1999: 1644-1645). According to Marram (1978: 118), the multidimensional approach has a special meaning for nurse group leaders, given their current preparation in schools of nursing; the need to adapt a theory to their own level of skill and philosophy of nursing, as well as the requirements placed on them in different work settings with different types of groups.

Our successful results may reflect the universal need of these patients to share emotional experiences and feelings with others undergoing the same disease process; relaxation techniques reduce general arousal and demobilization of the sympathetic nervous system, thus anxiety is also reduced.

2. Depression of the gynecologic cancer patients undergoing radiation therapy in the experimental group is lower than the control group after controlling pretest score of depression.

After controlling the pretest, depression of the gynecologic cancer patients of the experimental group was statistically significant lower than the control group ($\bar{x}$=36.45, SD.= 4.63, F=25.86, P<0.001) (Table5), thus supporting research hypothesis 2. The best explanation for this finding is that the depression of the members who received the therapeutic group plus regular nursing care was lower than the members who received only regular nursing care. There are some researches in accord with this study (Kelly, et al., 1993: 1679-761; Payne, et al., 1997: 65-71; Wellisch, et al., 1999: 1644-1645; Satapumirin & Tungworapongchai, 1988: 53-58). The results found these therapeutic groups significantly decreased depression. Indeed, there were some similarities between these studies and the present study e.g. the study of Wellisch, et al. (1999: 1644-1645), which studied the effects of group intervention in women who were at risk of breast cancer. The results found significantly decreased depression (t=-2.24, P<0.05), the same part in this study was the components of the group, including the educational component and the psychosocial component; but the different parts were the sample group and the instrument. The study of Payne, et al (1997: 65-71) studied soft tissue sarcoma; the results found significantly decreased

depression (t=5.43, P<0.05). In addition, they found that the therapeutic group assisted the members to increase social skills, their needs to manage and reduce stress, and face chronic illness. There were some similarities between the study of Payne, et al. and this study, including the components of the group and the total sessions. However, the differences were the sample group and the instrument.

The study of Kelly, et al. (1993: 1679-761) studied the effects of two model of cognitive behavioral therapy and support group therapy in 80 HIV infected patients. The results found significantly decreased depression (CBT, F=-4.15, P<0.05, SSG, F=2.71, P<=0.007) and the two forms of therapy also reduced hostility, and somatization. In cognitive behavioral therapy, there were some similarities between the study of Kelly, et al. and this study, including the components of the group and the total sessions (8 sessions). However, there were distinct differences in the sample group and the instruments. In support group therapy, there was a similarity to this study; total sessions (8 sessions); the differences were in the components of the group, the sample group and the instrument.

In addition, there was the study of Satapumirin, R. & Tungworapongchai, J. (1998:53-58). They studied the effects of the supportive group in depressed elderly. The results found significantly decreased depression (pretest, $\bar{x}$=14.80, SD.=3.11, posttest, $\bar{x}$=10.10,SD=4.30 t=-3.42, P<0.003). They found the supportive group provided experiences of encouragement, cohesion, opportunities for self-expression, and increased self-esteem. There was a similarity between the groups, including total sessions (8 sessions). The distinct differences was the components of the group

including giving information about disease, self-care, expressing common concerns and receiving support and encouragement. Lack of relaxation training in the group; differences were the sample group and the instrument. However, the finding and benefits of both studies were similarities, including the finding that therapeutic group significantly decreased depression, the members received support and encouragement, and increased self-esteem.

The effects of therapeutic groups on anxiety and depression were not much different. At post-group, the change of anxiety was 9.8, and 11.50 for depression. (anxiety, pretest $\bar{x}$=50.15, posttest, $\bar{x}$=40.35; depression=48.30, posttest=36.75). This result may be explained as follows: because depression is similar to anxiety in many ways, the two are linked and it can often come after a period of anxiety, be caused by anxiety, or go hand in hand with it (Priest, 1983: 16).

However, all of the research studies on the effects of therapeutic groups mentioned, were not similarities to this study in all parts. There were some similarities, therefore, further study should investigate the effect of the therapeutic group on gynecologic cancer patients or other diseases that use the same instrument, and the same program of therapeutic group for confirmation this research finding.

From group evaluation, the members enjoyed participation with the group. The majority of the members said they waited to participate with the group and they received benefits from the group including knowledge about disease and self-care and methods for releasing tension (relaxation training). Both verbal and non-verbal languages were presented in the group showed they relieved anxiety and depression, including smiling, laughing, continuous communication with other members, and

showed they had hopefulness e.g."I will stay with my daughter after radiation therapy and I plan to help my daughter look after my niece". "I have to follow up continuously in order to recover from disease". "Although I am sick my husband still loves me". The majority of the members said they relaxed, had hopefulness and felt free to express their unpleasant feeling; and through this process they were able to perceive the problems of others, with empathy and sincerity. In addition, they provided encouragement and advice to each other from their own positive experiences, thus increasing their feeling of self-esteem. According to Stuart and Laraia (2001: 361) the nurse should be centered around increasing self-esteem and encouraging expression of emotions. According to Poey, et al. (1985: 310-354) and Lescz (1990: 379-399) the therapeutic group has benefits to decrease depression in cancer patients. The atmosphere of group that has warmth, emphatic understanding, and enjoyment can help the members cope with the problems by themselves, feel decreased depression, and increased social skill. In a small group, the members can communicate thoroughly, receive respect, support and encouragement from the members and help the members increase their self-worth. Blake, et al. (1999: 1581) said that the therapeutic group can increase the quality of life and decrease depression. Furthermore, the International of Psychiatric Health (1991) recommends that the pharmacologic treatment of depression be supplemented with the group therapy.

This research has a limitation in the lack of randomization of the sample because of purposive sampling. Thus the result of this study cannot be generalized to population.

CHAPTER VI

CONCLUSION

This study was a quasi-experimental research study. The purpose was to determine the effects of the therapeutic group on anxiety and depression in gynecologic cancer patients undergoing radiation therapy at the Radiation Unit, Srinagarind Hospital, Faculty of Medicine, Khon Kaen University. A sample was purposively selected. A total sample of 40 persons was randomly assigned to the control and experimental groups in equal numbers, 20 persons in each group.

. The research instruments were the State Anxiety Inventory, Zung Self-Rating Depression Scale and therapeutic group plan. Before the study, the researcher examined the reliability by using Cronbach coefficiency. The reliability of State Anxiety Inventory was 0.87, and Zung Self-Rating Depression Scale was 0.87. The therapeutic group plan was developed by the researcher according to the combination of major concepts of client-centered theory and cognitive behavioral therapy. The researcher examined validity by using content validity from three experts. It was improved following the suggestions and it was used to take therapeutic group.

Data Collection

1. The researcher collected data by simple randomization and got the control group first. Therefore, the data were collected from the control group first. They were asked to participate in the study, provide demographic data, and evaluate their anxiety

and depression. The researcher gave information about the procedures of the study. Regular nursing care was given until the completion of 4 weeks. They were re-evaluated for anxiety and depression (post-test).

2. The researcher collected data from the experimental group following inclusion criteria. They were divided into 3 groups, group1 had 8 persons, group 2 had 7 persons, and group 3 had 5 persons. The researcher began to study group 1 until 8 sessions, then group 2 and group 3. They were asked to participate in the study. The sample group signed the consent form and information was given about the pattern of the group: a total of 8 sessions, with each session using 60-90 minutes, with a frequency of 2 sessions / week. Evaluation for anxiety and depression was done in the 8th session of the therapeutic group.

3. Data were collected from the control group and the experimental group for statistical analysis.

Analysis of Data

Data were analyzed by SPSS / PC according to the following:

1. Demographic data were analyzed by frequency and percentage.
2. ANCOVA was used to compare the difference in anxiety between the control group and the experimental group.
3. ANCOVA was used to compare the difference in depression between the control group and the experimental group.

The results revealed that:

1. After controlling the pretest score of anxiety, anxiety of the gynecologic cancer patients of the experimental group was statistically significant lower than the control group ($P<0.05$).
2. After controlling the pretest score of depression, depression of the gynecologic cancer patients of the experimental group was statistically significant lower than the control group ($P<0.001$).

Recommendations

1. Application of research findings

The application of these findings are as follows:

1. Nursing intervention:

1.1 The therapeutic group plan should be conducted with gynecologic cancer patients undergoing radiation therapy to decrease anxiety and depression.

1.2 Because all patients have diseases at genital organs, thus it affects them to be fear, worry and misperception about sex-relation or sex intercourse. Nurse should concern in this problem and provide any session for ventilation these problems and give information about sex-relation and genital care during radiation and after radiation therapy. In case, that nurse can not decrease anxiety about sex problems, nurse should refer patients to doctor for releasing anxiety about sex problems.

2. Nursing education: emphasis should be placed on students' practice of therapeutic group to relieve anxiety and depression in gynecologic cancer patients and increase the understanding of problems of gynecologic cancer patients.

3. Nursing research: use the results of this research as guidelines in studying the effects of therapeutic group on anxiety and depression in other cancer patients and other group of patients.

4. Nursing administration

4.1 Nursing department should provide therapeutic group for physical illness and the leader should be a clinical nurse specialist.

4.2 Nursing department should provide services for nurses by support nurses to develop their knowledge and skills of therapeutic group by stating that an importance techniques such as listening, support, encouragement, clarifying, acceptance, giving information, reassurance, positive reinforcement or simple relaxation e.g. deep breathing exercise and muscle relaxation. In particular, these institutions should provide nurses more time to develop and implement activities aimed at relieving anxiety and depression in gynecologic cancer patients.

2. Application for future research

1. Using other variables e.g. health status, social support that affect anxiety and depression for covariate analysis in the future research.

2. In case patients cannot read the questionnaires, the caregiver or relatives should read the questionnaires instead of the researcher, in order to avoid answering the questionnaires following social expectations and to please the researcher.

3. Study the effects of therapeutic group on different variables e.g. self-concept, self–esteem, quality of life, and adaptation in gynecologic cancer patients.

4. Evaluate long-term, after participation in the therapeutic group for 1 month and, 3 months to study anxiety and depression levels in gynecologic cancer patients.

Limitations of the study

1 Anxiety and depression that the researcher chose for this study may impact other factors e.g. health status, social support and other problems; this depends on the emotional situations and perceptions of each disease.

2 Data collection in patients who cannot read Thai language or had blurred vision in the elderly, in which the researcher read the questions for the sample group may affect the answer to the question, in the way of social expectations or answering for the researcher's satisfaction.

External validity

In this study, the subjects were selected by purposive sampling therefore, the samples obtained were not necessarily representative of entire population of gynecologic cancer patients undergoing radiation therapy and the result of this research cannot be referred to population.

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APPENDIX

APPENDIX A
Human Rights for Research Population

For the control group

I am "Pornnipa Harnlacon" a graduate nursing student, Psychiatric and Mental Health Nursing, Faculty of Medicine, Ramathibodi Hospital, Mahidol University. I am interested in research study on effects of therapeutic group on anxiety and depression in gynecologic cancer patients undergoing radiation therapy, at Srinagarind Hospital, Khon Kaen University. The objective of this research was to determine the effects of therapeutic group on anxiety and depression in gynecologic cancer patients undergoing radiation therapy. If you agree to participate with the research you will be asked to answer the demographic data and your assessment of anxiety and depression by self-report questionnaire on the first day of the study (pretest), then you were received regular nursing care. Regular nursing care includes received information about the disease, and self care during radiation therapy from the doctor, nurse and personnel at radiation unit. When you receive regular nursing care for 4 weeks, you will be asked to answer the assessment of anxiety and depression by self-report questionnaire (posttest). All of the data from this group will be used to compare with the experimental group in order to use the benefits of this research to relieve anxiety and depression in gynecologic cancer patients undergoing radiation therapy the next time. All of the responses and the information will be kept confidential and this information will be used only as group data and used for statistical analysis.

If you would not like to participate in this research study, you can withdraw from the study at anytime. It will not affect you and any treatment. If you would like to participate in this research study please sign your name in this human rights for research population form. Thank you very much.

Miss Pornnipa Harnlacon

I am "....." willing and participate for a sample group in the study. 'Effects of therapeutic group on anxiety and depression in gynecologic cancer patients undergoing radiation therapy' of "Miss Pornnipa Harnlacon". The graduate nursing student, Faculty of Graduate Studies, Mahidol University.

Sign.....
Fullname(.....)
Date,Month,Year.....

APPENDIX B
Human rights for research population

For the experimental group

I am "Pornnipa Harnlacon" a graduate nursing student, Psychiatric and Mental Health Nursing, Nursing Department, Faculty of Medicine, Ramathibodi Hospital, Mahidol University. I am interested in research study on effects of therapeutic group on anxiety and depression in gynecologic cancer patients undergoing radiation therapy at Radiation Unit, Srinagarind Hospital, Khon Kaen University. The objective of this research was to determine effects of therapeutic group on anxiety and depression in gynecologic cancer patients undergoing radiation therapy. If you agree to participate with the research you will be asked to answer the demographic data and your assessment of anxiety and depression by self-reporting questionnaire on the first day of the study. Then the researcher will ask you to participate in the therapeutic group, which will take place in a private room at relatives' house every Tuesday and Thursday from 4.30–6.00 p.m. A total of 8 sessions, 2 sessions / week, for 4 weeks, 60-90 minutes / sessions. After you participated with therapeutic group for 8 sessions, I will ask you to answer the assessment of anxiety and depression by self-report questionnaire (post-test). For the benefits that you will receive from participation in the therapeutic group include good relationship with other members, express feeling about sadness, and anxiety and receive support and encouragement from other members and relieve anxiety and depression. All of responses and the information from group, will be kept confidential. It will be used for improvement of nursing care in gynecologic cancer patients undergoing radiation therapy and used for statistical analysis.

If you would not like to participate in this research study, you can withdraw from the study at any time. It will not affect you and any treatment. If you would like to participate in this research study please sign your name in this human rights for research population form. Thank you very much.

Miss Pornnipa Harnlacon

I am "....." willing and participate for a sample group in the study. 'Effects of therapeutic group on anxiety and depression in gynecologic cancer patients undergoing radiation therapy of' "Miss Pornnipa Harnlacon". The graduate nursing student, faculty of Graduate Studies, Mahidol University.

Sign.....
Fullname (.....)
Date,Month,Year.....

APPENDIX C

Part I: Demographic Recording Form (for patient)

Group ( ) Experimental group ( ) Control group No of questionnaire.....

1. Age (year)
   - ( ) 30 - 40
   - ( ) 41 – 50
   - ( ) 51 – 60
   - ( ) 61 – 70

2. Occupation
   - ( ) Government officer
   - ( ) Merchandize
   - ( ) Housewife
   - ( ) Employee
   - ( ) Agriculturist

3. Family Income (Bath/ month)
   - ( ) < 5,000
   - ( ) 5,000–10,000
   - ( ) 10,001–15,000
   - ( ) 15,001–20,000

4. Marital Status
   - ( ) Single
   - ( ) Married
   - ( ) Divorce
   - ( ) Widowed
   - ( ) Separated

5. Type of medical expense during radiation therapy
   - ( ) Government pay for all
   - ( ) Government pay for a half
   - ( ) Self payment
   - ( ) Social welfare
   - ( ) Health insurance

6. Place for during radiation therapy
   - ( ) Own home /son or daughter' s home
   - ( ) Friends' home
   - ( ) Rent house
   - ( ) Residential house for patient and Relatives

Part II: Demographic Recording Form (for the researcher record from chart)

No. of Questionnaire
Date.....

Group ( ) experimrental group ( ) Control group

1. Diagnosis .....

2. Staging.....

3. Volume of radiation in each day .....cGy

4. Total volume of radiation .....cGy

5. Type of treatment.....

APPENDIX D

State Anxiety Inventory

Directions: A number of statement which people have used to describe themselves are given below. Read each statement and then place a check √ in the appropriate to the right statement to indicate how you feel right now. There are no right or wrong answer. Do not spend a lot of time to think about it and just choose the appropriate one which can describe your present feeling best.

	Not at all	Somewhat	Moderately so	Very much so
1. feel calm				
2. I feel secure				
3 .I am tense				
4. I felt at ease				
5 I feel upset				
6. I am presently worrying				
7.....				
8.....				
9.....				
10.....				
11.....				
12.....				
13.....				
14.....				
15.....				
16.....				
17.....				
18 I feel confuse				
19.I feel steady				
20.I feel pleasant.				

APPENDIX E
Zung Self-Rating Depression Scale

Below are twenty statements about fearing each of us has at one time or another. Read each one and place a check ✓ in the box which best describes how are feeling at this time

	A little of the time	Some of the time	Good part of the time	Most of the time
1. I feel down hearted and blue				
2. Morning is when I feel best.				
3. I have crying spells or feel like it.				
4. I have trouble sleeping at night.				
5. I eat as much as I used to.				
6. I still enjoy sex.				
7. I notice that I am losing weight				
8.				
9.....				
10.....				
11.....				
12.....				
13.....				
14.....				
15.....				
16.....				
17.....				
18.My life is pretty full.				
19.I feel that others would be better of if I were dead.				
20.I still enjoy the thing I used to do.				

APPENDIX F

Therapeutic Group Plan

Session	Objective	Leader's activities
1.	1. For the members 1.1 To introduce the leader, co-leader and the member. 1.2 To give information: objective, norm and member's role. 1.3 To give information: the pattern of group, session, duration, frequency, and place 1.4.To give information: the benefits of the therapeutic group. 2. To create a close relationship with the members, the leader and co-leader in a relaxed atmosphere.	1. About 30 minutes for: 1.1 The leader greet, introduce herself, co-leader and the members. 1.2 The leader give information about objective, norm and member's role. 1.3 The leader give information about pattern of group, session, frequency, duration and place for the group. 1.4. The leader ask the members to tell their expectations of the group, conclude their expectations and emphasize to the members they will achieve according their expectations, with all members mutually take following the group's role. 2 The leader encourage the members to participate, have good relationships and talk about general information of each member: - First name, surname, nickname. - Brief history age, birthplace, education level, marital status, occupation, present illness. - Hobby The leader concluse and link in the same part.

Session	Objective	Leader's activities
1		This phase take 20-30 minutes and this phase is to create relationships; the leader is to be warm, acceptance, empathic understanding and genuineness.
	3. To tell about important problems of each member, and tell what help they want from group.	3. The leader stimulate the members to tell about important problems in the present and conclude the problems.
	4. To evaluate this session about: - their feelings, feeling with others.e.g. member, leader and co-leader. - Suggestions for next session	4. The leader use 15 minutes for group evaluation by 4.1 The leader stimulate the members to express about feelings when they participated in the first session; feeling for other members, the leader and co-leader. The leader has to accept each patient, feeling both negative and positive aspects (unconditioning positive regard) and accept the suggestions that the leader makes to improve for next time. If the suggestions cannot improve, the leader should accept and not argue. Technique: - go-round - listening, acceptance, silence, reflection of feelings. 4.2 The leader give encouragement, reinforcement to all the members. Technique: positive reinforcement. (Cognitive Behavioral Therapy)
	5. To give information e.g. date, time and place for the next session.	5. The leader give information on the date, day, time and place for the next session.

Session	Objective	Leader's activities
2	1. To review objectives, norms of group and member's role. 2. To relieve member's tension. 3. To review the past group session. 4.To give information about the steps of the group.	1. The leader greet and stimulate the members for reviewing objectives and norms of group through the member's role (use 5-10 minutes). 2. The leader warm up by using deep breathing exercise deep breathing exercise and use both hand associate and extend ahead with long exhalation and use repetition manner 5 time and then left extend 5 times and right extend and extend over head 5 time (use 5-10 minutes). (relaxation technique: Cognitive behavior therapy). 3. The leader review the past group session. 4. The leader give information about steps in this group process, which include: Step 1: expression of feelings or presentation of problems. Step 2: asking questions. Step 3: suggestion the way for solving the problems. Then choose the members to present problem. In each session, the member present the problem 1-2 persons/session and if there are many persons, they have to vote on which problem to discuss. 5. Use 40–60 minutes for 4.1 Presenting the problem (use 10-15 minutes). 4.2 Members ask any questions after presenting the problems (use 10-15 minutes). 4.3 Members suggest ways to solve the problems (use 10-15 minutes).

Session	Objective	Leader's role
2	5. To conclude the group and evaluate the group through giving information about date, time for next session.	In case the members have questions about disease, treatment and self care, the leader adds knowledge about disease, treatment and self care, according to their problems (15-20 minutes). 5. Use 15 minutes for 5.1.Conclusion of this session 5.2 Evaluation about - Atmosphere of group. - Self-feeling, feeling about other members and to leader and co-leader. 5.3 Give positive reinforcement (cognitive behavioral therapy) 5.4 Give information what the process of the group in the next session and remind them of the date, time, and place for the next session. Techniques: go-round - listening,acceptance. - reflection of the feeling. - giving information. - summarizing.

Session	Objective	Leader's activities
3	1. To review objectives, norm of group and member's role 2.To relieve anxiety, relax and create atmosphere of the group.	1. The leader greet the members, review objectives of group, norm of group and member's role (use 5-10 minutes). 2. The leader warm up by using relaxation technique (Cognitive behavior therapy) as follows: - deep breathing exercise slowly 10 time and muscle relaxation As a first step, the person who is going through relaxation training should be seated comfortably in a chair or be lying on the floor. An easy, casual manner and good rapport are essential for the counselor 2.1.Start the procedure by suggesting that the client close her or his eyes and take a few deep breaths, exhaling slowly each time. Tell the client, "we are going to engage in a systematic relaxation program. You will find it's something you will enjoy, but we must go at your pace. If you find I' m moving too fast or too slowly, let me know. In general, I'll know how you are doing as I can watch your response and will time what I,m doing to where you are. First, I'd like you tighten your right hand-that's right-hold it tight for about five seconds-one, two, three,four,five. Now let it go, and notice the difference between relaxation and tension. Notice the feeling of ease as you let your hand go. What we'll do is go through your body in much the same fashion, alternatively tightening and letting go of each muscle group. "let's begin". Continue by having the client tighten and loosen the right hand once again. Remember to have the client notice the difference between relaxed and tense body states Awareness of muscle tension is one key goal of relaxation training. After you have done the right hand

Session	Objective	Leader s activities
3	3. To ventilate the problems or present unhappy problems. 4. To asked any questions that they do not understand to own the problem. 5.To relax, share experiences and ideas.	for a second time, continue through the rest of the body in the order suggested in number 4, below. Each time, have the client: 1) tighten the muscle group, 2) hold the tension approximately five seconds, 3) let the tension go, and 4) notice the difference between tension and relaxation. **A suggest order for muscle group as follows:** Right hand, right arm, left hand, left arm, neck and shoulder together, neck alone, face and scalp, neck and shoulder again, chest, lung, back, abdominal–stomach - entire upper body chest back, lung, abdomen, face, neck, both arms, followed by a deep breath held and then exhaled slowly and gently - Abdomen, stomach again, buttocks, thighs feet, entire body - then slowly open your eye 3.Stimulate the members to present the problem and if many members want to express feeling, the member will vote. 4.Stimulate the members to ask any questions from the own of the problems. 5.Stimulate the members to suggest ways for solving the problems, and receive support and encouragement from the members, leader and co-leader. Technique: go-round, attendance, silence, suggestion, listening, clarifying, reflection of the feeling, support and positive reinforcement.

Session	Objective	Leader's role
3	6. To mutual suggest the way for solving the problems.	6. The leader encourage the members to participate and express the ideas freely by the leader have an empathic understanding, unconditioning positive regard, warmth and genuineness manner,. Technique: acceptance, listening, silence, attendance.
	7. To evaluate the group as follows: - Group atmosphere. - Their feelings to each self, to other and to the leader and co-leader. - Suggestions about next session.	7. The leader conclude and evaluate the group.
	8. To appoint the next session.	8. The leader appoint the next session.

session	Objective	Leader's activities
4	1. To Review objectives, norms of group and member's role	1. The leader greet the members, review objective of group, norm of group and member's role (use 5-10 minutes).
	2.To relieve anxiety and relax and create atmosphere of the group.	2. The leader warm up by using relaxation technique (Cognitive behavior therapy) as follows: - deep breathing exercise slowly 10 time and muscle relaxation (see the step in the 3rd session)
	3. To ventilate the problems or present unhappy problems.	3. The leader stimulate the members to present the problem and if many members want to express feeling, the member will vote.
	4. To asked any questions that they do not understand to own the problem.	4. The leader stimulate the members to ask any questions from own of problems.
	5.To mutual suggest the way for solving the problems.	5. The leader stimulate the members to suggest the ways for solving the problems, and receive support and encouragement from the members, leader and co-leader. Technique: go-round, attendance, silence, suggestion, listening, clarifying, reflection of the feeling, support and positive reinforcement.
	6. To relax, share experiences and ideas	6.Encourage the members to participate and express the ideas freely by the leader have an empathic understanding, unconditioning positive regard, warmth and genuineness manner,. Technique: acceptance, listening, silence, attendance.

Session	Objective	Leader's role
4	7. To evaluate the group as follows: - Group atmosphere. - Self conception to each self, other and the leader and co-leader. - Suggestions about next session. 8. To appoint the next session.	7. The leader conclude and evaluate the group. 8. The leader appoint the next session.

session	Objective	Leader's activities
5	1.To Review objective, norm of group and member's role	1. The leader greet the members, review objectives of group, norm of group and member's role (use 5-10 minutes).
	2.To relieve anxiety and relax and create atmosphere of the group.	2. The leader warm up by using relaxation technique (Cognitive behavior therapy) as follows: - deep breathing exercise slowly 10 time and use both hand associate and extend ahead with long exhalation and use repetition manner 5 time and then left extend 5 time and right extend and extend over head 5 time (use 5-10 min).(relaxation technique: Cognitive behavior therapy).
	3. To Ventilate the problems or present unhappy problems.	3. The leader stimulate the members to present the problem and if many members want to express feeling, the member will vote.
	4. To asked any questions that they do not understand to own the problem.	4. The leader stimulate the members to ask any questions from the own of the problems.
	5.To mutual suggest the way for solving the problems.	5. The leader stimulate the members to suggest the ways for solving the problems, and receive support and encouragement from the members, leader and co-leader. Technique: go-round, attendance, silence, suggestion, listening, clarifying, reflection of the feeling, support and positive reinforcement.

Session	Objective	Leader's role
5	6. To relax, share experiences and ideas.	6. The leader encourage the members to participate and express the ideas freely by the leader have an empathic understanding, unconditioning positive regard, warmth and genuineness manner,. Technique: acceptance, listening, silence, attendance.
	7. To evaluate the group as follows: - Group atmosphere. - Self conception to each self, other and the leader and co-leader. - Suggestions about next session.	7. The leader conclude and evaluate the group.
	8. To appoint the next session.	8. The leader appoint the next session.

session	Objective	Leader's activities
6	1.To review objectives, norms of group and member's role 2.To relieve anxiety and relax and create atmosphere of the group.	1. The leader greeting the members, review objective of group, norm of group and member's role (use 5-10 minutes). 2. The leader warm up by using relaxation technique (Cognitive behavior therapy) as follows: - deep breathing exercise slowly 10 time visualization. (relaxation technique: cognitive behavior therapy). 2.1. Starting the procedure by suggesting that the client close her or his eyes and notice the feeling inside the body. Take sometimes and suggest that the client notice the breath going in and out, the feeling of the chair or floor on the butttocks and back, the feeling of the temperature in the room. All this should be done slowly, easily, and comfortably. The effort focuses on bringing the client to here and now awareness of body experience. 2.2. Then suggest at the client freely think about a scene in the past where he or she felt as ease and comfortable and happy. Suggest that the client go to the scene and enjoy the feeling and thoughts that go with that happy time, noticing as many details and facts as possible. The client may wish to notice the feeling in the body at that time, such as movement of the air, temperature, and body movements. Let the client continue with the visualization as long as desired and then become silent, letting him or her determine when to come back. 2.3.Alternatively, let the client know that he or she will have some time to enjoy the scene and experience, but that you' ll come back in a while. After about ten minutes, gently say that it is time to

session	Objective	Leader's activities
6		return to this room. Suggest that the eyes remain closed and that he or she note once again the feelings in the body connected with this room, as in the first part of exercise. Suggest that the eyes may open when the client wish.
	3.To ventilate the problems or present unhappy problems.	3. The leader stimulate the members to present the problem and if many members want to express feeling, the member will vote.
	4. To asked any questions that they do not understand to own the problem.	4. The leader stimulate the members to ask any questions from the own of the problems.
	5.To mutual suggest the way for solving the problems.	5. The leader stimulate the members to suggest the ways for solving the problems, and receive support and encouragement from the members, leader and co-leader. Technique: go-round, attendance, silence, suggestion, listening, clarifying, reflection of the feeling, support and positive reinforcement.
	6.To relax, share experiences and ideas.	6. The leader encourage the members to participate and express the ideas freely by the leader have an empathic understanding, unconditioning positive regard, warmth and genuineness manner,.
	7.To evaluate the group as follows: - Group atmosphere. - Self conception to each self, other and the leader and co-leader. - Suggestions about next session.	Technique: acceptance, listening, silence, attendance. 7. The leader conclude and evaluate the group.
	8. To appoint the next session.	8. The leader appoint the next session

Session	Objective	Leader's role
7	1.To review objectives, norms of group and member's role 2.To relieve anxiety and relax and create atmosphere of the group. 3. To ventilate the problems or present unhappy problems. 4. To asked any questions that they do not understand to own the problem. 5.To mutual suggest the way for solving the problems. - Suggestions about next session. 6.To relax, share experiences and ideas.	1. The leader greet the members, review objective of group, norm of group and member's role (use 5-10 minutes). 2.The leader warm up by using relaxation technique - deep breathing exercise slowly 10 time and muscle relaxation (use 5-10 min). (see the step in the 4 th session) (relaxation technique: Cognitive behavior therapy). 3. The leader stimulate the members to present the problem and if many members want to express feeling, the member will vote. 4. The leader stimulate the members to ask any questions from the own of the problem. 5. The leader stimulate the members to suggest the ways for solving the problems, and receive support and encouragement from the members, leader and co-leader. Technique: go-round, attendance, silence, suggestion, listening, clarifying, reflection of the feeling, support and positive reinforcement. 6. The leader encourage the members to participate and express the ideas freely by the leader have an empathic understanding, unconditioning positive regard, warmth and genuineness manner,. Technique: acceptance, listening, silence, attendance.

Session	Objective	Leader's role
7	7.To evaluate the group as follows: - Group atmosphere. - Self conception to each self, other and the leader and co-leader. - Suggestions about next session. 8. To prepare the members for termination of the group and appoint the next session.	7. The leader conclude and evaluate the group. 8. Before closing group session no 7, the leader reassure the members that they can ask for helping or consult nurses available, when they feel anxious, unhappy. Appoint the next session.

Session	Objective	Leader's role
8	1. To relax and create the group's atmosphere. 2. To evaluate positive progress, mutual encouragement 3. For the members 3.1 To evaluate the group - Group' s atmosphere. - Express feelings to terminate freely, to other member, leader and co-leader. - The benefits that they receive from the group. - Suggestions to improve the group.	1. The leader warm up by using relaxation technique (deep breathing exercise combined with visualization) for 10-15 minutes. (see the step in the 6th session) 2. The leader stimulate the members to observe and discuss how each member has changed since the first group, to terminate the group, and tell about the good characteristics of each member so that the members of the group can observe and give mutual encouragement (use 30-40 minutes) Technique: encouragement and support 3. The last phase uses 30-40 minutes: 3.1 The leader stimulates the members to evaluate the group about: - Group' s atmosphere. - Feelings about terminating the group freely, feeling for other members, leader and co-leader. - The benefits that they receive from the group. - Suggestions for improving the group Techniques: go-round, acceptance, listening, silence, attendance, clarifying, reflection of feelings, encouragement, support and positive reinforcement. 3.2 Terminate the group by saying "thank you" to all of the members. Close group by all of the members holding hands in the middle of the group and exchange support, encouragement and say good bye.

APPENDIX G
Theme of Therapeutic Group

Therapeutic Group has 8 sessions, duration 4 weeks, 2 sessions/week, the experimental group has 20 persons, divide into 3 groups ,group 1 (8 persons), group 2 (7 persons), and group 3 (5 persons). The researcher was the leader of group and there was 1 co-leader. Each group session analyzed the theme of the group by use Farrell concepts; the principles of the group analyzed based-on Farrell included members' interaction, body language, leader's role, structure of group, feeling tone and themes. From this research the researcher would like to present only group 1

Group Analysis	**Session 1**
Members' interaction	- Mostly the leader began to ask questions and stimulate the members to answer the questions. - The members answered the specific person who was asked. - The members talked to other members sometimes and sometimes had sub-group.
Body language	- Circular arrangement. - The members sat down in the optimal space. - Most members were well-mannered.
Leader's role	- The leader greeted and introduced herself, co-leader and members by name, lastname, birthplace and hobby. - The leader gave information: objectives of group, norm of group, member's role and pattern of group. The leader mostly asked questions and stimulated members to answer the questions. - The leader created relationship under warmth, genuineness and acceptance.
Structure of group	- 8 members - The members formed a close relationship, but some members just greeted and spoke. - Start 5.00 p.m.and finished 6.00 p.m.

Group Analysis	Session 1
Feeling tone	- First 30 minutes, most of the members were silent, had stress and were suspicious. - The leader had to stimulate members to answer questions. - Last 30 minutes, the member spoke continuously and were relaxed.
Themes	- Structure and norm of group. - Illness of the members, fear of disease and uncertainty of prognosis. - Side effects of radiation therapy.

Group Analysis	**Session 2**
Member's interaction	- The members spoke to follow the topic as the leader asked. Other members sometimes had continuous communication. - The members sat down at the right side of the leader asked the questions, and talked with other members often.
Body language	- Circular arrangement. - The members who stayed in the same house sat close to each other, but others sat in an optimal space. - Most members were well-mannered.
Leader's role	- The leader greeted and re-introduced herself, co-leader, then the members introduced themselves, and he leader review of objectives and norm of group, member's role and gave information about the pattern of group, and process of group. - The leader stimulated the members to take about their illness or unhappy feelings. - The leader stimulated members to speak and listen problems with acceptance, listening warmth, and genuineness.
Structure of group	- 8 members. - Start 5.00 p.m., and finished 6.00 p.m.
Feeling tone	- First 30 minutes; some of the members were silent and stressed. - The leader had to stimulate speaking and answering of questions, and in the last 30 minutes the members were relaxed and relieved of tension.
Themes	- Review structure of group, norm of group. - Self-care during radiation therapy. - Insomnia, fear of disease.

Group Analysis	Session 3
Member's interaction	- The members began to talk, asked with other members and the leader sometimes. - The members, who use to greet before spoke often.
Body language	- Circular arrangement. - The member who knew each others sat down close to each other, but other members sat in optimal space.
Leader's role	- Warm up - The leader stimulated members to express their problems. - The leader created group atmosphere under warmth, acceptance, genuineness and mutual support. - The leader gave information and group summary.
Structure of group	- 6 members - Start 5.00 p.m. and finished 6.00 p.m.
Feeling tone	- A few members were stressed, in the first 20 minutes and last 40 minutes the members were comfortable and relaxed and were relived of tension.
Themes	- Side effects of radiation therapy e.g. anorexia - Fear to recurrence of cancer. - Self-care during radiation

Group Analysis	Session 4
Member's interaction	- The members asked and talked with other members, the leader often. - The members increased self-expression. - There were sub-groups sometimes.
Body language	- Circular arrangement - The members sat in optimal space. - Most of the members sat in a comfortable manner.
Leader's role	- Warm up - The leader stimulated members to express the problem. - The members stimulated members to ask questions from the own of the problem and mutual support. - The members gave information and group summary.
Structure of group	- 8 members. - Start 5.00 p.m. and finished 6.00 p.m.
Feeling tone	- Through the session the members were relaxed to participate in group, but some members had fear and anxiety from radiation therapy and their diseases.
Themes	- Side effects of radiation: norsea, vomiting. - Fear of disease, anxiety about disease - History of family and history of illness. - Self–esteem in each member

Group Analysis	Session 5
Member's interaction	- All of the members talked with other members and the leader continuously. - The members increased expression. - The members had a close relationship and mutual support.
Body language	- Circular arrangement - The members sat in optimal space. - Most of the members sat down in a comfortable manner.
Leader's role	- Warm up - The leader stimulated the members to express their problems. - The leader stimulated the member to asked questions from the own of the problems and solved the problem. - The leader gave information and group summary.
Structure of group	- 6 members - Start 5.00 p.m., finished 6.20 p.m.
Feeling tone	- Through the session the members were relaxed, but some members had fear and anxiety about their illness and radiation therapy.
Themes	- Side effects of radiation therapy. - Self-care during radiation therapy.

Group Analysis	**Session 6**
Member's interaction	- All of the members talked with other members and the leader and co-leader continuously. - The members presented own problems, mutual advice, support and formed a close relationship.
Body language	- Circular arrangement - The members sat in optimal space. - Most of the members sat in a comfortable manner.
Leader's role	- Warm up - The leader stimulated the members to express their problems. - The leader stimulated the members to asked questions of the own of the problems and solved the problem. - The leader gave information and group summary.
structure of group	- 7 members. - Start 5.00- finished 6.10 p.m.
Feeling tone	- Through the session the members were relaxed to participate in group, and most members had relieve of fear and anxiety about their diseases.
Themes	- Side effects of drug, and radiation therapy. - Self-care during radiation therapy. - Uncertainty of disease and healing of disease.

Group Analysis	Session 7
Member's interaction	- All members talked with other members and leader continuously. - The members had a close relationship and mutual group for solving their problems.
Body language	- Circular arrangement - The members sat in optimal place and made a nod in assent, eye contact with smiles and laughed - All of the members sat in a comfortable manner.
Leader's role	- Warm up - The leader gave information on self-care during radiation therapy. - The leader prepared the members by to have one session for therapeutic group, reassured to the member that they can consult their problems to the doctors, nurses or personnel of the hospital, whenever they had a problem. - Group summary.
Structure of group	- 7 members. - Start 5.00 p.m. and finished 6.00 p.m.
Feeling tone	- All of the member were relaxed, enjoyed and had a feeling of belonging of the group.
Themes	- Anxiety on disease, prognosis. - Self-care during radiation therapy.

Group Analysis	**Session 8**
Member's interaction	- All members talked with other members and leader continuously. - The members had mutual problem solving and good relationship.
Body language	- Circular arrangement. - The members sat in optimal place nod in assent, eye contact, smile and laughed. - All members sat in a comfortable manner.
Leader's role	- Warm up - Game for the members by the leader stimulate the member to talk about the good thing or improvements in each member. - The leader connected main aspect. - The leader supported and encouraged members. - Group summary.
structure of group	- 6 members - Start 5.00 and finished 6.00 p.m. - The group walked to terminal phase.
Feeling tone	- All of the members were relaxed, enjoyed, the warm friendly, and cohesion of group.
Themes	- Discussion an improvement in each member and the good things in each member . - Problems of each member e.g. Anxiety, depression. - Self –care about sexual intercourse. - Expression of feelings to terminal group.

APPENDIX H
List of Expert for Instrument Validity

The content validity of Therapeutic Group Plan was determined by 3 experts who include:

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   Faculty of Medicine, Ramathibodi Hospital, Mahidol University.

2. Assistant Professor Payao Puljareon
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   Ramathibodi Hospital, Faculty of Medicine, Mahidol University.

3. Mrs. Taveeporn Suwatanajaroon
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