ปัจจัยที่มีผลต่อคุณภาพชีวิตของผู้ป่วยหลังผ่าตัดมะเร็งเต้านม จังหวัดร้อยเอ็ด ประเทศไทย

นายเอกสิทธิ์ มามะณี

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาสาธารณสุขศาสตรมหาบัณฑิต
สาขาวิชาการพัฒนาระบบสาธารณสุข
วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย
ปีการศึกษา 2552

FACTORS AFFECTING QUALITY OF LIFE AMONG PATIENTS WITH POST-OPERATIVE BREAST CANCER IN ROI-ET PROVINCE, THAILAND

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A Thesis Submitted in Partial Fulfillment of the Requirements
for the Degree of Master of Public Health Program in Health Systems Development
College of Public Health Sciences
Chulalongkorn University
Academic Year 2009

Thesis Title	FACTORS AFFECTING QUALITY OF LIFE AMONG PATIENTS WITH POST OPERATIVE BREAST CANCER IN ROI ET PROVINCE, THAILAND
By	Mr.Ekkasit Mamanee
Field of Study	Health Systems Development
Thesis Advisor	Robert Sedgwick Chapman, M.D.(Harvard Univ.)

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เอกสิทธิ์ มามะณี : ปัจจัยที่มีผลต่อคุณภาพชีวิตของผู้ป่วยหลังผ่าตัดมะเร็งเต้านม จังหวัดร้อยเอ็ด ประเทศไทย. (FACTORS AFFECTING QUALITY OF LIFE AMONG PATIENTS WITH POST-OPERATIVE BREAST CANCER IN ROI-ET PROVINCE, THAILAND) อ. ที่ปรึกษาวิทยานิพนธ์หลัก : Robert Sedgwick Chapman, M.D. (Harvard Univ.), 56 หน้า.

การวิจัยเรื่องปัจจัยที่มีผลต่อคุณภาพชีวิตของผู้ป่วยหลังผ่าตัดมะเร็งเต้านม จังหวัดร้อยเอ็ด ประเทศไทย การศึกษา นี้เป็นการศึกษาภาคตัดขวาง กลุ่มตัวอย่าง 250 ราย โดยมีวัตถุประสงค์เพื่อศึกษาคุณภาพชีวิต และเปรียบเทียบคุณภาพชีวิตจำแนกตามปัจจัยต่างๆของผู้ป่วยหลังผ่าตัดมะเร็งเต้านม กลุ่มตัวอย่างคือ ผู้ป่วยหลังผ่าตัดมะเร็งเต้านม 2 สัปดาห์ที่มารับบริการที่ หอผู้ป่วยศัลยกรรม ชั้น 2 โรงพยาบาลร้อยเอ็ด โดยการสุ่มแบบเจาะจง จำนวน 250 ราย เครื่องมือที่ใช้ในการวิจัยได้แก่ แบบสอบถาม ซึ่งประกอบด้วยข้อมูลทั่วไป แบบวัดคุณภาพบริการความสะดวก และการสื่อสารประชาสัมพันธ์ และแบบประเมินคุณภาพชีวิตการตรวจสอบความตรงเชิงเนื้อหาจากผู้เชี่ยวชาญ และทดสอบความเชื่อมั่น โดยวิธีอัลฟ่าของครอนบาค (Cronbach' coefficient) มีค่าเท่ากับ 0.729, 0 .766 ตามลำดับ เก็บรวบรวมข้อมูลโดยการสัมภาษณ์กลุ่มตัวอย่าง ระหว่างวันที่ 1 กุมภาพันธ์ 2553 – 25 มีนาคม 2553 วิเคราะห์ข้อมูลโดยใช้สถิติเชิงพรรณนา ได้แก่ ค่าความถี่ ร้อยละ ค่าเฉลี่ย และส่วนเบี่ยงเบนมาตรฐาน และสถิติที่ใช้correlation test, Independent T –Test, ANOVA Test.

กลุ่มตัวอย่างมีคุณภาพชีวิตอยู่ในระดับ ปานกลาง ร้อยละ 51.2 และระดับสูง ร้อยละ 48.4%และระดับต่ำ 0.4% พบว่า คุณภาพของระบบบริการและคุณภาพชีวิติมีความแตกต่างกันอย่างมีนัยสำคัญ ($r=0.569$, $p<0.001$). เช่น อายุและรายได้ มีความสัมพันธ์กับคุณภาพระบบบริการและคุณภาพชีวิต ส่วนตัวแปลอื่นๆ ระดับการศึกษา อาชีพ ความเพียงพอของรายได้ และสิทธิการรักษา มีความแตกต่างกันอย่างมีนัยสำคัญ จากการค้นพบดังกล่าวแสดงให้เห็นว่า ควรมีการส่งเสริมคุณภาพชีวิตของผู้ป่วยหลังผ่าตัดมะเร็ง โดยเฉพาะในกลุ่มผู้ป่วยโรคมะเร็งเต้านม กลุ่มที่มีความรุนแรงของโรคมาก และมีระดับการศึกษาที่ไม่สูง เพื่อให้คุณภาพชีวิติที่ดีขึ้น ปรับปรุงนโยบายด้านบริการสุขภาพ และส่งเสริมคุณภาพชีวิต ให้คำแนะนำเกี่ยวกับแหล่งช่วยเหลือ เรื่องค่าใช้จ่ายในการดูแล รักษาพยาบาล สิทธิการรักษา การหาอาชีพเสริมให้แก่ผู้ป่วย ซึ่งเป็นการส่งเสริมคุณภาพชีวิต

สาขาวิชา การพัฒนาระบบสาธารณสุข ลายมือชื่อนิสิต Mr.Ekkasit Namanee

ปีการศึกษา 2552 ลายมือชื่อ อ.ที่ปรึกษาวิทยานิพนธ์หลัก Robert S. Chapman

#5179167853 : MAJOR HEALHT SYSTEMS DEVELOPMENT
KEYWORDS :A WOMEN/FACTORS/BREAST CANCER /POST OPERATIVE /HEALTH SERVICE/QUALITY OF LIFE/ ROI-Et PROVINCE/ THAILAND/

EKKASIT MAMANEE : FACTORS AFFECTING QUALITY OF LIFE AMONG PATIENTS WITH POST-OPERATIVE BREAST CANCER IN ROI-ET PROVINCE, THAILAND. THESIS ADVISOR: Robert Sedgwick Chapman, M.D.(Harvard Univ.), 56 pp.

This was a cross-sectional study that included 250 post-operative breast cancer patients in Roi-et Province, Thailand. The study was intended to describe the participants' quality of life (QOL) and perceived quality of health services, as assessed by standardized interviewer-administered questionnaires. The study also examined associations of relevant independent variables with service quality and with QOL. Interviews were conducted in the surgical unit within 2 weeks after surgery. Health-related quality of life was assessed by using the WHOQOL-BREF.

Most respondents had a moderate level of Quality of life (51.2%), followed by high (48.4%) and low (0.4%) level of quality of life post operative breast Cancer respectively. Service quality score and quality of life (QOL) score were positively and statistically significantly correlated ($r=0.569$, $p<0.001$). Age was not significantly related to either score. Age and income were significantly associated with both scores, bur directions of associations were not regular. Neither occupation nor presence of health problems in family members were significantly associated with either score. Both scores were significantly lower in participants in the 30-baht scheme than in those in other insurance schemes. Further research is needed to provide explanations for study findings.

This study has limitations. Service quality and QOL were measured within 2 weeks of surgery. These could change with longer time after surgery, as could observed associations of independent variables with service quality and with QOL. Also, type of surgery (e.g., mastectomy vs. lumpectomy), which can be an important determinant of QOL, was not analyzed in this study.

The communicable disease and emerging disease of the breast cancer can affect Thai nationals also. To control some disease, quality of life the stakeholders provides supplement information for the formulation of health policy and making resource allocation decisions. To improve quality of life of the patients with post operative breast cancer, Roi-Et Hospital, Roi-Et Province, both governments of the source county and host county should incorporate the breast cancer health in nation and sectoral policies for sustainable development, poverty reduction, employment, trade, environmental protection, and education.

Field of Study: Health Systems Development Student's Signature Mr.Ekkasit Mamanee

Academic Year: 2009 Advisor's Signature Robert S. Chapman

ACKNOWLEDGEMENTS

I would like to express my sincere gratitude and appreciation to my thesis advisor, Robert S. Chapman, M.D., M.P.H for he kindness, valuable guidance and encouragement throughout the period of my study.

I am also grateful to Ajarn Robert S. Chapman, M.D., M.P.H, for great support, and valuable suggestion in statistical data analysis on my study. My thanks also go to Ajarn Robert S. Chapman, M.D., M.P.H for research methodologies on quality of life questionnaires.

I would like to express my sincere gratitude to my advisor committee Ajarn Robert S. Chapman, M.D., M.P.H and Ajarn Dr.Khemika Yamarat, Ajarn Prida Tasanapradit for their guidance, invaluable advice which has enabled me to develop this thesis.

Grateful acknowledgement is hereby made to Dr.Narong Oungtakul, Hospital director, Roi-Et hospital, for their support. Most importantly, I would like to offer my special thanks to all respondents who agreed to participate in study and made the data collection complete and worthwhile.

I wish to thank all the faculty members of the college of Public Health Sciences, Chulalongkorn University for providing me knowledge and support to help my study, and college staff for their invaluable assistance in various ways. My sincere thanks also go to all my friends and colleagues for their unconditional friendships, moral support, and advice in many fasions.

Finally, I wish to express my deepest unconditional gratitude to my beloved parents, who brought me up and made me everything I am, support and patience.

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LIST OF ABBREVIATIONS

QOL	Quality of life
SF	Sort Form
WHO	World Health Organization
WHOQOL	World Health Organization's Quality of life
WHOQOL-BREF	World Health Organization's Quality of life (Short form)

CHAPTER I
INTRODUCTION

1.1 Background and Rationale

Cancer is an important health problem. Report from American Cancer Society (2004-2005), highly rising of breast cancer patients was found and its death rate is just less than coronary heart disease. In 2005, Incidence of breast cancer is 13.4% among the female general population. That means 1 out of 7 will be diagnosed with breast cancer. In Thailand found that cancer is the most common cause of death in 1999 – 2004, Death rate from cancer compared to other disease increase every year, rising from 11.0% to 12.9%. And in 2004, people be diagnosed breast cancer is 32.22 percentage (Ministry of Public Health, 2004) and data from Breast cancer National institute (2004) found that new diagnosis of breast cancer is 10.7%. Incidence of breast cancer is on the second rank below CA cervix, and it is on the fourth rank of all cause of death less than CA lung, CA liver and CA cervix. Incidence of breast cancer in woman more than men 100 times, (Choalada Punthusana, 1999). From all of above, the researcher may choose to study CA breast in woman to find out the best practice and appropriate care for them.

From pervious data, even the death from breast cancer is not much like heart disease or other cancer diseases, because regard to early recognition from high technology of screening test. Although cure rate is high, but if patient visited to hospital at late stage (the most patients weren't detect in early stage), they may have suffered from many modalities of treatment such as surgical treatment, radiation therapy, chemo there and hormonal therapy. However, the surgery is best regarded in treatment CA breast of women (Burk, Mone, and Mohn-Brown, 2003)

From review literatures found that, Quality of Life After Breast Cancer Surgery With or Without Reconstruction (Stavrou, et al, 2009). Quality of life is a term that is extensively used by sociologists, philosophers, economists, politicians, and healthcare providers. There is a wide and multidimensional definition for QOL, which relies heavily on patients' sex, age, ethnicity, and religious beliefs. It encompasses personal tastes, hobbies, experiences, perceptions, attitudes, and beliefs,

all of which can be divided into 4 primary categories, physical and occupational, psychosocial, social, and somatic. Health-related quality of life in breast cancer patients: A bibliographic review of the literature (Ali montazeri, 2008) to measure quality of life in breast cancer patients. Were found to be the most common and well developed instruments to measure quality of life in breast cancer patients. Surgery-different surgical procedures led to relatively similar results in terms of quality of life assessments, although mastectomy patients compared to conserving surgery patients usually reported a lower body image and sexual functioning. Systemic therapies-almost all studies indicated that breast cancer patients receiving chemotherapy might experience several side-effects and symptoms that negatively affect their quality of life. Adjuvant hormonal therapies also were found to have similar negative impact on quality of life. Quality of life as predictor of survival-similar to known medical factors, quality of life data in metastatic breast cancer patients was found to be prognostic and predictive of survival time. Psychological distress-anxiety and depression were found to be common among breast cancer patients even years after the disease diagnosis and treatment. Psychological factors also were found to predict subsequent quality of life or even overall survival in breast cancer patients. Supportive care-clinical treatments to control emesis, or interventions such as counseling, providing social support and exercise could improve quality of life. Symptoms-Pain, fatigue, arm morbidity and postmenopausal symptoms were among the most common symptoms reported by breast cancer patients. As recommended, recognition and management of these symptoms is an important issue since such symptoms impair health-related quality of life. Sexual functioning-breast cancer patients especially younger patients suffer from poor sexual functioning that negatively affect quality of life.

Quality of Life and the Effect on Social Status among Slovenian Women after Breast Cancer Treatment, (Gorisek, Krajnc and Krajnc, 2009) This study investigated whether the type of surgical procedure used to treat breast cancer (mastectomy versus breast conserving lumpectomy) had any effect on the quality of life and social status of women. The patients that underwent lumpectomy were more satisfied with their body image and their sexual life than those who underwent mastectomy. Since the adverse financial effects of wage loss can significantly decrease a patient's quality of

life, this study indicates that post mastectomy patients in particular need to be protected more effectively against a decline in their social status. Quality of life in patients with breast cancer before and after diagnosis: an eighteen months follow-up study, (Ali montazeri, et al, 2008). In all, 167 patients diagnosed with breast cancer. The mean age of breast cancer patients was 47.2 (SD = 13.5) years and the vast majority (82.6%) underwent mastectomy. At eighteen months follow-up data for 99 patients were available for analysis. The results showed there were significant differences in patients' functioning and global quality of life at three points in time (P <0.001). Although there were deteriorations in patients' scores for body image and sexual functioning, there were significant improvements for breast symptoms, systematic therapy side effects and patients' future perspective (P < 0.05). Impact of medical and demographic factors on long-term quality of life and body image of breast cancer patients (Härtl, et al., 2003) patients showed minor impairment of QoL (mean 67.8) and body image (mean 24.8), The primary surgical treatment modality had the strongest impact and affected all four scales. Patients treated with breast conservation reported a more favorable body image, compared to those treated with mastectomy (17.2 versus 37.5, *P* <0.01), more satisfaction with surgical treatment (4.0 versus 10.7, *P* = 0.01), rated a better cosmetic result (75.5 versus 57.1, *P* <0.01), but presented more fear of recurrence (63.9 versus 55.3, *P* = 0.04).

Quality of life and depression in breast cancer patients after surgery in King Chulalongkorn Memorial Hospital**,** (Malarat P and Pityaratstian N.**,** 2008) All subjects were breast cancer female patients and the age averaged 48.63 years, Almost of subject was operated during 3 to 6 month that stage 2 and their received chemotherapy so they were side effect after operation swelling in the arms and anorexia. The breast cancer patients were in intermediate level and occupation category and side effect after operation could significantly predict quality of life in breast cancer 73.48% (S.D = 12.804). The majority of breast cancer no depression and related factor in depression was joint stiffness could significantly predict quality of life in breast cancer Pattern of post operative pain in breast cancer, (Prakaitip Siriwong, 2008) the pattern of post operative pain in breast cancer within 72 hours after the operation. Retrospectively, 81 breast cancer patient’s charts were reviewed. The first hour after the patients came back from the operation the most of patients

have high pain score, modified radical mastectomy (MRM) and wide excision patients has mean pain score = 5.4 and 3.5 respectively (SD = 3.9 and 1.8) the patient classified by groups of pain score, it found that 18% of the patients (n=14) had highest pain score = 7 – 10, 50% of patients (n=44) had medium pain score = 4 – 6, and 28% of the patients (n=23) had minor pain score = 1 -3. It found that the patients operated by MRM had higher pain score than those operated by wide excision.

Adequate surgical treatment of breast cancer, can prolong patients lifespan, but operation can suffer to patients. Because of health education for operation limited in using arm beside the office operations especially losing side image (Umaporn Paisansuthidatch, 1992) because breast the identity praises of a woman, help encourage the figure and the image of a woman. Concern with performing mother, the duty to produce milk for a child. The breast is worthy and pride in everybody woman, (Okada, 2001). To operate particularly breast goes out, because operation menace self care decrease (Carpenter and Brockocpp, 1994) affecting the quality of life of patient, by the overall image in minimum level. From dimension all side measurement, acknowledgement quality of image portion in moderate level. While, acknowledgement other side heading in high-level, (Vanida Ratananon, 2002). Because post operative pain, mental problem, paranoids, anxiety, are the result of operation the breast, the first stage of basic in patient (Shimozuma et al., 1999). (Sirion Sintu, 1992) said "with regard to the patient a lose of breast side, will have an affect on image change in women, make the feeling of being woman and a mother are down" from the education of Harl and the faculty, found that breast cancer in woman of preservation requirement, like to keep the breast more than at yield a doctor operation the breast goes out arrival at 2 times or there is the ratio 37.5 equals to17.2 (Hartl et al., 2003) correspond the study preceding found that 94% of breast in woman. Post operation of breast sides, there is the contentment post operation breast goes out in the average, because a women have lost image feeling, (Kraus, 1999) which, post operation of breast, make a women have the acknowledgement about the image of oneself goes in negative. Both of the beauty sense, performing, latency, the feeling is worth and the pride in oneself very much, (Cousson et al., 2005).

The study found, the image losing related to tension behaviors in breast cancer women post operation of breast side (Putama Coptajit, 2010) because the breast women has got meaning and the importance of for them, the breast is the symbol of the femininity, be forces power pushes sexual, attractive the interest of the opposite sex, the response and encourage important temper of engaging in sexual intercourse, (Wonghogkul et al., 2000) particularly women between 22-50 years, the first operation 33 percentages, will find a problem between the image and sexual relations, 17 percentages will be good quality lowland life down, (Fobair et al., 2006) women of breast cancer feel perceptive at equilibrium way temper depletion severely at time, post operation first stage of breast might find is charging temper, because of women's weakness in anesthetic smelling and the symptoms and wound, way of charging temper be distinct. When, a women aforementioned improve from symptoms during 1 month breast of operation, women will feel of good quality lowland life down, (Shimozuma et al., 1999) mainly take to time 2 year, for fine way temper state and the mind, good quality of life (Cosson et al., 2005) while, the some people can not admit the changing was passed by mechanical confronting with the tension, happened from image changing, and might find steals dishonestly.

From the reason forming abovementioned can find that, image changing of women operate on the breast cancer, the affecting of quality life among patients' with post operation of breast cancer and behavior. From the statistics of people come to take service in the Roi-Et Hospital in 2003 – 2008. At surgical dormitory, the patients diagnosed as breast cancer 2003 amounts 104 person, in 2004 amounts 115 person, in 2005 amounts 120 persons, in 2006 139 person, in 2007 amounts 141 persons and in 2008 amounts145 person. (The data from statistics comes to take serve in Roi-Et hospital, 2003 – 2008). From a report found that, a patient problem of breast cancer tend to increase, from knowledge revision and the relation of research, the researchers know image changing in women post operation. But still can't find which database in nurse practice, finding image of women post operations of breast cancer, the researchers find the advantage medical personnel, especially nurses who is close to patients can be guideline of the researchers to study, for health promotion women post operation breast cancer. For health promotion and image in patient's breast cancer of

post operation, can find the image and living in the social has good quality and life continually.

1.2 Research questions

1. What is the level of quality of life in post-operative breast cancer patients?
2. What factors are related with quality of life in post-operative breast cancer patients?
3. What is the perceived quality of health services in post-operative breast cancer patients?
4. What factors are related with perceived quality of health services in post-operative breast cancer patients?

1.3 Objectives

1. To characterize quality of life in post-operative breast cancer patients.
2. To seek the factors related to quality of life in post-operative breast cancer patients.
3. To characterize perceived quality of health services in post-operative breast cancer patients.
4. To seek the factors related to perceived quality of health services in post-operative breast cancer patients.

1.4 Conceptual Framework

The study factors affecting quality of life among patients' with post operation of breast cancer in Roi-Et Province. The figure below presents the independent and dependent variables studied in relation to quality of life and health service quality in post-operative breast cancer patients.

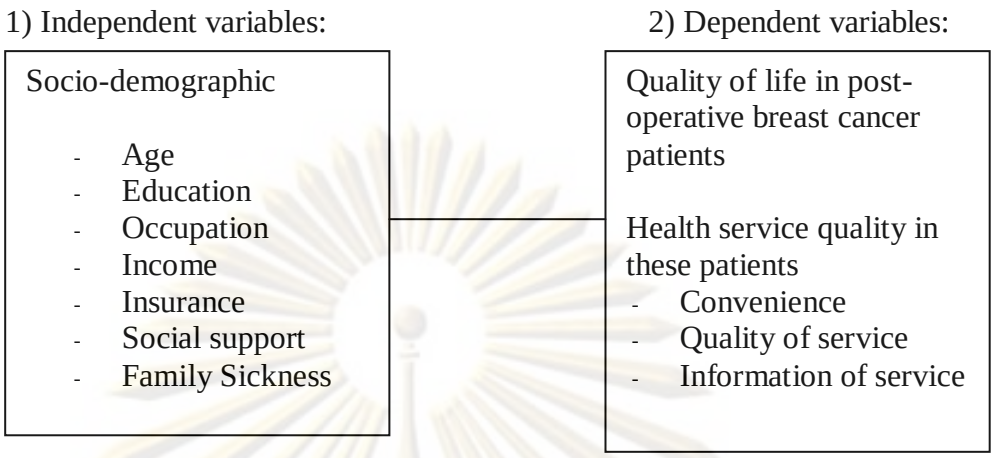

Figure 1: Conceptual framework

1.5 Operational Definitions

The research study, Factors affecting quality of life among patients' with post-operative breast cancer in Roi-Et Province. Area in patient surgery ward, Roi-ET hospital. By choosing woman with post-operative CA breast among age more than 15 years old, and study an affected factors from personal of data such as; age, education, occupation, income Insurance, heredity, social supportive system, child amount, contraception, marrying period, and period of sickness.

Independent variables; Health system: convenience, quality of service, information of service.

- Population limits; all post-operative breast cancer patients age ≥ 15 years, in patient surgery dormitory Roi-ET hospital, from 2 February through 25 March 2010.

1.5.1 Independent:

- Leading factors: Age, Education, Occupation, Income, Insurance, Social support
- Supportive factors: Quality of health service, Information and convenience of service.

1.5.2 Dependent:

Quality of life in patients CA breast. Perceived quality of health services.

Term definition

- Age: age of patients as years from birth to the day answer the questionnaires.
- Occupation: work to earn their lives for example, farmer, a gardener, housekeeper, doctor, engineer etc.
- Income: money that is earned from doing work or received from investments
- Insurance: that covering of medical care and holistic care.
- Convenience: health system services that fast, good, and accurate.
- Quality of service: standard serve that cause topmost advantage to customer. For example, Patient's post operation breast cancer and no complication; shoulder of joint dislocation or stick.
- Knowledge about CA breast: the understanding about CA breast such as, signs and symptoms and protection.
- Information service: route to receiving news and information about breast cancer. Example, by listening, reading, having tells, persuade or conservation.
- Social supportive system: have an advice by neighbor or relatives to have an examination of breast cancer.
- Patient's CA breast: CA breast to be from unusual progress of breast cells and the body will can not control the progress, make an abnormal cell, increase continually , rapidly , and spread go out still other organ. Breast cancer spread 3 phrases.
    1. Spread directly to adjacent organ example, breast cancers at largest spread arrives to the skin or deep arrive to chest muscle.
    2. Spread to the lymph node. which, spread cancer cell goes inside to before lymph node, cell majority of the breast cancer will spread go to the lymph node at axillaries, in the operation have to remove install lymph node at axillaries, to diagnosis for treatment by chemotherapy or radiotherapy.
    3. Spread to blood circulation, will bring to spreading at all organ example, a liver, long, and bone.

4. Quality of life: Health and status patients that responses to their status in every dimensions such as health, mental, socioeconomic and spirits.
5. The image: the effected that are suffer to a woman, both of the body, mind, temper, social, and spiritual. Especially their body built by post operation of breast.
6. Post operative patient: a person that have to be care, after the \ operation at breast area

CHAPTER II
REVIEW OF LITERATURE

The studies Factors affecting quality of life among patients with post-operative breast cancer in Roi-Et Province. Review literature and research.

Literature Review and related documents

2.1 Concepts of Quality of life

2.2 Concept health education of breast cancer

2.3 The supportive research

2.1 Concepts of Quality of life

2.1.1 Definition of health

The Constitution of the World Health Organization (WHO) defines health as "A state of complete physical, mental, and social well-being not merely the absence of disease**".** It follows that the measurement of health and the effects of health care must include not only an indication of changes in the frequency and severity of diseases but also an estimation of well being and this can be assessed by measuring the improvement in the quality of life related to health care (World Health Organization, 1997).

2.1.2 Concepts of Quality of life

Quality of Life

QOL is a term that is extensively used by sociologists, philosophers, economists, politicians, and healthcare providers. The term originates from Aristotle's Nicomachean Ethics, dating back to 330 BC, in which he recognizes the relation between QOL, happiness, and the subjective values of the individual (Aristotle, 335–323 BC). There is a wide and multidimensional definition for QOL, which relies heavily on patients' sex, age, ethnicity, and religious beliefs. It encompasses personal tastes, hobbies, experiences, perceptions, attitudes, and beliefs, all of which can be divided into 4 primary categories, physical and occupational, psychosocial, social, and somatic.

Upon examination, there are several relevant variables in the application of the QOL measurement in healthcare (Health Related Quality of Life [HRQOL]). HRQOL measured by QALY (Quality Adjusted Life Years) refers to an individual's physical, functional, and emotional well-being, as well as fulfillment and satisfaction in aspects of life related to health. It is a "value assigned to the duration of life and modified by impairments," considering the individual's own sense of well-being and not the healthcare provider's one.

The WHOQOL instruments were developed cross-culturally.

An expert group meets convened by the economic and social commission for asia and pacific (United Nations, 1995) developed a model for a survey of the QOL including six components as follows:

1. Health: health is a key aspect of the QOL not only in its own right but in its implications for all other QOL components. People need a minimum standard of health in order to be able the work, support themselves and their families, contribute to society and take advantage of the recreational and culture opportunities in their environment. Disease illness and disability greatly effect labor productivity, resource saving, and population growth.

2. Education: like health, education is not only a key component of the QOL, but has pervasive implications for all other as well. In this regard, education must be viewed in its entire dimension: the acquisition of formal education, as represented by literacy, numeracy and the other skill, as well as non-formal education, relating to the wider world, such as socialization and culturalization process, which are both essential contributor to the QOL.

3. Working life: in addition to its income-generating function, working life has important implications for the overall QOL by way of its provision of opportunities for self-fulfillments through personal development as well as social mobility. The quality of work and the working environment undoubtedly have a fundamental impact on people' s lives, since a substantial part of most adults time is spent at work.

4. Physical environment: the physical environment is defined here as comprising the built environment infrastructure created to support human activity as well as the natural environment. Safe drinking water and adequate sanitary facilities

have a tremendous impact in diminishing the risk of endemic disease and improving general health condition.

5. Family life: the condition of family life have and immediate impact on the QOL of every individual and are also critical determinants of the QOL. At the same time, the family, as the basic social and economic institution, is greatly affected by the social problem associated with economic change. Both family function and restructure are for adapting to the changing socio-economic environment. As part that process, the role of family member are also undergoing a transition.

6. Poverty: poverty is defined as the inability to meet individual basic needs. It must thus be seen within the context of human needs. However, human needs vary from one county to another as well as among social group within counties. Furthermore, they include a perceptual element which also varies among social groups and individuals overtime.

Currently being tested to assess responsiveness to change. The WHOQOL-BREF, an abbreviated 26 item version of the WHOQOL-100, was developed using data from the field-trial version of the WHOQOL- 100. The WHOQOL instruments can be used in particular cultural settings, but at the same time results are comparable across cultures. The WHOQOL is now available in over 20 different languages and its development in further languages is progressing.

Body Image

Another concept of major interest in breast cancer patients is body image. Body image has received many interpretations since it was first described in the 1920s, but the most familiar one is the definition by Price, 48 who describes body image as "the totality of how one feels and thinks about one's own body and appearance." She incorporates for the first time the 3 elements of body image: (1) *body reality*—"the body as it really exists"; (2) *body ideal*—"subjective picture of each person on how the body should look and perform"; (3) *body presentation*—"how the body is presented to the outside environment." In our society's restrictive definition of *physical beauty* 49 where beautiful people are considered more intelligent, outgoing, happier, and better company, 50 breast surgeries can greatly

affect the body image and thus the QOL of a woman. (Quality of Life After Breast Cancer Surgery With Or Without Reconstruction; pag163 – 164, 2009)

2.1.3 Measuring QOL (WHOQOL-BREF)

The Structure of the WHOQOL-100 the structure of the WHOQOL-100 reflects the issues that a group of scientific experts as well as lay people in each of the field centre felt were important to quality of life. The six broad domains of quality of life, and the twenty-four facets covered within each domain are shown below. Four items are included for each facet, as well as four general items covering subjective overall QOL and health, producing a total of 100 items in the assessment. All items are rated on a five point scale (1-5). (Measuring quality of life the world health organization quality of life instrument, 1997)

Table 2.1.3: Measuring QOL (WHOQOL-BREF)

Domain	Facets incorporated within domains
1. Physical health	- Energy and fatigue Pain and discomfort Sleep and rest
2. Psychological	- Bodily image and appearance Negative feelings Positive feelings Self-esteem Thinking, learning, memory and concentration
3. Level of Independence	- Mobility Activities of daily living Dependence on medicinal substances and medical aids Work Capacity
4. Social relationships	- Personal relationships Social support Sexual activity
5. Environment	- Financial resources Freedom, physical safety and Security - Health and social care: accessibility and Quality. - Home environment - Opportunities for acquiring new information and skills. - Participation in and opportunities for recreation/leisure. - Physical environment (pollution/noise/traffic/climate) Transport
6. Spirituality/Religion/Personal beliefs	- Religion /Spirituality/Personal beliefs.

2.2 Concept health education of breast cancer

Cancers develop as a result of cells dividing uncontrollably which is caused by a complex mix of factors related to environment, lifestyle, and genetics. Eventually, altered genes and uncontrolled growth may produce a tumor that can be benign or malignant. Malignant tumors can invade, damage, and destroy nearby tissues and spread to other parts of the body. A benign tumor won't spread to other parts of the body, but local tissue may be damaged and the growth may need to be removed.

Breast cells contain a variety of genes that normally work cooperatively with a woman's natural hormones, diet, family history, age, gender, menopause, first birth, depression, and environment to keep her breasts healthy. (Armstrong et al., 2000) Certain genes routinely maintain breast cells from dividing and growing out of control and forming tumors. Breast cancer usually occurs at single cells that change from normal cells to malignant over a period of time. Presently, no one can predict exactly when cancer will occur or how it will progress when breast cancer is diagnosed, even if detected at the earliest stage. (Armstrong et al., 2000) In Thailand, breast cancer is one of the top five cancers and is increasing very fast. Siriraj Hospital is one hospital in Thailand that has gathered data from patients for more than 10 years. Unfortunately breast cancer databases have redundancies, complexes, and constrains. Siriraj Hospital wanted to analyze risk factor, and investigate treatment methods. The National Comprehensive Cancer Network (NCCN) (Sasco,2003) in the USA is dedicated to improving the quality and usefulness of care provided to patients with cancer. NCCN develops resources that present precious information to the many stakeholders in the health care delivery system. NCCN promotes the important of continuous quality improvement and recognizes the significance of creating clinical practice guidelines appropriate for use by patients, clinicians, and other health care decision-makers. The NCCN provides an efficient method for deciding on the treatment of breast cancer. This method is a very effective way to classify the stages and uses neoadjuvant to recommend treatment of breast cancer patients. However Siriraj Hospital has its own system, which differs in detail from the NCCN algorithm. Therefore this work developed, a web application using the Siriraj algorithm to classify breast cancer stage and find a suitable method to treat breast cancer patients. The database has been created to eliminate complex and redundant patient

information and make it easy to add and update data. This system helps physicians to classify the state of breast cancer which allows a doctor to treat patients in the right way. An algorithm for doing Cox regression, to forecast probability of survival has also been included so that when historical data has been entered into the database, analysis of risk factors for the Thai context can be investigated.

RELATED RESEARCH

Nowadays breast cancer is one of the top five cancers in the world. There are many risk factors that corresponding with this disease such as age of menarche, family history, genes, hormone, previous biopsy, age of menopause, etc but in Thailand there is a very little of research about how to find risk factors for Thai people, Stotter et al., 2000, found the way to improve data collection on breast cancer incidence and survival by using Cox model. They suggest that age was important to predict survival. Vincent Vinh-Hung, et al Resource [Online] Available from: "http://breast-cancer-research.com" studied the number of lymph nodes as a risk factor and using cox model and they found that the number of lymph nods is a risk factor for breast cancer. In the decision part, this system uses decision support system concept to make a recommendation to the physician. Curtis (1994) studied a genetic frame work for complex medical expert system interface by use PC-Kappa as a system development environment. Bridgett et al. (1999) in Associative Memory Neural Network to increase accuracy of diagnosis and treatment of breast cancer but it is only a concept not implemented. Genetic algorithm Golobardes et.al. (2001) used case based reasoning and genetic algorithms to diagnose breast cancer by using mammography image but human expert is better than this system. (Meesad and Yen 2003) Used incremental leaning fuzzy neural network algorithm to classify breast cancer in mammography images. This system can classify breast cancer better than a human expert. (Pual, et al 2003) used web application and database to build the reusable clinical database for predictive modeling and for coming wave of translational laboratory research and now this system cover prostate cancer.

RISK FACTORS

Breast cancer is the most common malignancy affecting women in North America and Europe. Every woman is at risk of breast cancer. Close to 200,000 cases of breast cancer were diagnosed in the United States in 2001. Breast cancer is the

second leading cause of cancer death in American women behind lung cancer. The lifetime risk of any particular woman getting breast cancer is about 1 in 8 although the lifetime risk of dying from breast cancer is much lower at 1 in 28. Risk factors for breast cancer can be divided into those that you cannot change and those that can be changed. Some factors that increase the risk of breast cancer that cannot be altered include being a woman, getting older, having a previous history of breast cancer, having had radiation therapy to the chest region, education, age at menarche, parity nulliparae, menopausal status, age at menopause, body mass index, total calorie intake, not only being Caucasian, starting periods young, having menopause late, never having children or having them when over 30, reproductive life, hormonal factors, and having a genetic mutation that increases your risk, also people from metropolis comparison with developing country. The researcher found that people from metropolis have more risk than developing country because of not only family history of breast cancer, nulliparity, first pregnancy at late age, early age at menarche and menopause, obesity in post-menopausal women, previous breast disease and a genetic disposition. Also depression is another risk factor of breast cancer. (Nyklicek et al., 2003) Genetic mutations for breast cancer have become a hot topic of research lately. Between 3% to 10% of breast cancers may be related to changes in either the gene BRCA1 or the gene BRCA2. Women can inherit these mutations from their parents and it may be worth testing for either mutation if a woman has a particularly strong family history of breast cancer. If a woman is found to carry either mutation, she has a 50% chance of getting breast cancer before she is 70. Family members may elect to get tested to see if they carry the mutation as well. If a woman does have the mutation, she can get more rigorous screening or even undergo preventive mastectomies to decrease her chances of contracting cancer.

Early onset of mean and late menopause: Onset of the menstrual cycle prior to the age of 12 and menopause after 250 cases increased risk of developing breast cancer

Diet high in saturated fat: The types of fat are important. Monounsaturated fats such as canola oil and olive oil do not appear to increase the risk of developing breast cancer like polyunsaturated fats: corn oil and meat.

Family history of breast cancer: patients a positive family history of breast cancer is at increased risk for developing the disease. However, 85% 0f women with breast cancer have a negative family history.

Family history only includes immediate relatives, mother, sisters and daughter: if a family member was post-menopausal (fifty or older) when she was diagnosed with breast cancer, the lifetime risk is only increase 5%. If the family member was premenopausal and had bilateral breast cancer, the lifetime risk is 50%.

Genetic testing of the BRCA 1 and BRCA 2: genes is increasingly being integrated into clinical care for appropriately counseled adults who meet established criteria for this testing. The American society of clinical oncologists (ASCO) and the nation comprehensive cancer network (NCCN) and among the professional healthcare organizations who have published criteria for genetic counseling/testing and cancer risk management. Increased and earlier surveillance, chemoprevention (tamoxifen, oral contraceptives) and surgical interventions (mastectomy, oophorectomy removal of the ovaries and fallopian tubes) are among the current early detection and risk-reducing strategies discussed with women undergoing BRCA testing. In contrast to breast cancer, there is no reliable early detection for ovarian cancer, which is often fatal due to late stage at diagnosis. Therefore, oophorectomy is generally recommended between age 35 – 40 or upon completion of childbearing for women at high risk for ovarian cancer. Despite initial concerns about insurance coverage discrimination, many insurers, including major indemnity plans (BC/BS, Aetna, Kaser, etc.) recognize the healthcare benefits of this BRCA testing and cover test and genetic consolations fees when deemed medically necessary. To date, more than 10,000 women and men have had BRCA testing. Similar to other medical tests, BRCA test results are often used to substantiate the need for the early detection and risk-reducing options available for the individuals at the high-risk for breast and ovarian cancer.

Late or no pregnancies: Pregnancies prior to the age of twenty-six are somewhat protective. Nuns have a higher incidence of breast cancer

Moderate alcohol intake: Greater than two alcoholic beverages per day.

Estrogen replacement therapy: Most studies indicate that taking estrogen longer than ten years may lead to a slight increase in the risk developing breast cancer. However, these studies indicate that the positive benefits to taking estrogen ad for reducing the risk for osteoporosis, heart disease and no more recently Alzheimer's and colon cancer, far outweigh the slight increase in risk that may be associated with estrogen replacement therapy.

History of prior breast cancer: Patients with a prior history of breast cancer are at increased risk of developing breast cancer in the other breast. This risk is 1% per year or a lifetime risk of 10%. The reason for close clinical follow-up after the diagnosis of breast cancer is not only to detect recurrence of the disease. But also to detect breast cancer in the opposite breast.

Female: The mere fact that being female increases the risk of developing breast cancer. However, for every 100 women with breast cancer, 1 male will develop the disease.

Therapeutic irradiation to chest wall i.e., for Hodgkin disease (cancer of lymph nodes): Patients who have had therapeutic irradiation to the chest are at increased risk for developing breast cancer approximately 10 years later and consideration should be given to earlier screening in this population.

Moderate obesity: The relationship of breast cancer to obesity is more complex but associated with an increased risk.

Sign and Symptoms

The early stage of breast cancer may not have any symptoms. This is why it is important to follow screening recommendations. As a tumor grows in size, it can produce a variety of symptoms including:

- Lump or thickening in the breast or underarm
- Change in size or shape of the breast
- Nipple discharge of nipple turning inward
- Redness or scaling of the skin or nipple
- Ridges or the breast skin

BREAST CANCER TYPES

Ductal Carcinoma in-site (DCIS)**:** Generally divideed into comedo (Blackhead, the cut surface of the tumor demonstrates extrusion of dead and necrotic tumor cells similar to a blackhead) and non-comedo types. DCIS is early breast cancer confined to the inside of the ductalsystem. The distinction between comedo and non-comedo types is important as co medocarcinoma in-situ generally behaves more aggressively and may show areas of micro invasion (small areas of invasion through the ductal wall into surrounding tissue).

The surgical management is the same as for other types of breast cancer except axillaries node sampling is not done, as only 1% of these lesions will have axillaries metastasis. We recommended, however, that irradiation be given if treated with conservative breast surgery to reduce the recurrent rate from 21% without irradiation, to 5% - 10% with irradiation. This is a controversial area of the treatment of breast cancer.

Infiltrating Ductal: The mostcommon type breast cancer representing 78% of all malignancies. These lesion can be stellate (star like appearance on mammography) in appearance or well circumscribed.

SCREENING TEST FOR BREAST CANCER

Screening for breast cancer uses mammograms, clinical breast exams, and breast self-exams. Woman between the ages of 20 and 39 should have a clinical breast exam every 3 years; and after the age of 40 every woman should have a clinical breast exam done each year. Specific patterns of breast cancer consist of 4 stages and 2 specific patterns:

Stage 0: Very early breast cancer. Cancer has not spread within or outside the breast so called DSIS, LCIS, or breast cancer in situ or noninvasive cancer.

Stage I: Cancer is no larger than about 1 inch in size and has not spread outside the breast. (Also described as early breast cancer)

Stage II:

• The cancer is no larger than 1 inch, but has spread to the lymph nodes under the arm.

• The cancer is between 1 and 2 inches. It may or may not have spread to the lymph nodes under the arm.

• The cancer is larger than 2 inches, but has not spread to the lymph nodes under the arm.

Stage III Stage III is divided into stages IIIA and stages IIIB:

Stage IIIA doctor may find either of the following:

• The cancer is smaller than 2 inches and has spread to the lymph nodes under the arm. The cancer also is spreading further to other lymph nodes.

• The cancer is larger than 2 inches and has spread to the lymph nodes under the arm.

Stage IIIB doctor may find either of the following:

• The cancer has spread to tissues near the breast (skin, chest wall, including the ribs and the muscles in the chest).

• The cancer has spread to lymph nodes inside the chest wall along the breast bone.

Stage IV The cancer has spread to other parts of the body, most often the bones, lungs, liver, or brain. Or, the tumor has spread locally to the skin and lymph nodes inside the neck, near the collarbone.

TREATMENT FOR BREAST CANCER

Surgery

The purpose of this method is to eliminate as much of the cancer as possible. Some women will be candidates for surgery that called breast conservation therapy (BCT). BCT constantly needs to be combined with radiation therapy to make it an option for treating breast cancer. In early stage cancers (stage I and stage II), BCT is as effective as removal of the entire breast via mastectomy. Most patients with DCIS that have a lumpectomy are treated with radiation therapy to prevent the local recurrence of DCIS Wenten M, Gilliland FD, Baumgartner K, Samet JM, "Associations of weight, weight change, and body mass with breast cancer risk in Hispanic and non-Hispanic white women" Ann Epidemiol 2002;12(6):435-4.

Chemotherapy

Many breast cancer patients are offered chemotherapy, in order to decrease a patient's risk of recurrence after surgery. Chemotherapy using anti-cancer drugs which

treat the entire body. Sometimes patients have a recurrence of cancer, or present in stage IV with disease outside the breast. These patients need chemotherapy, and a multiplicity of different agents may be tried until a response is obtained. Sometimes doctor give chemotherapy before surgery. This is called neoadjuvant chemotherapy. This is usually reserved for very advanced cancers that need to be shrunk before the doctor can be operated on it Wenten M, Gilliland FD, Baumgartner K, Samet JM, "Associations of weight, weight change, and body mass with breast cancer risk in Hispanic and non-Hispanic white women" Ann Epidemiol 2002;12(6):435-4.

Radiotherapy

Radiation therapy is commonly used which uses high energy rays (similar to x-rays) to destroy cancer cells. The treatment takes just a few minutes, and it is painless. Radiation therapy is used in patients who receive breast conservation therapy (BCT). It is also recommended for patients after a mastectomy on a patient who had a large tumor, lymph node involvement, or close/positive margins Wenten M, Gilliland FD, Baumgartner K, Samet JM, "Associations of weight, weight change, and body mass with breast cancer risk in Hispanic and non-Hispanic white women" Ann Epidemiology 2002;12(6):435-4.

Hormonal Therapy

Patients who display tumors expressed estrogen receptors are recommended for therapy with a estrogen blocking drug called Tamoxifen. This drug has been shown to significantly reduce risk of recurrence Wenten M, Gilliland FD, Baumgartner K, Samet JM, "Associations of weight, weight change, and body mass with breast cancer risk in Hispanic and non-Hispanic white women" Ann Epidemiol 2002;12(6):435-4.

Nottingham Prognostic Index(NPI)

The NPI status was 1st published about 1992 as an attempt at using some fairly objective parameters to determine the odds that a newly diagnosed case of invasive ductal adenocarcinoma would benefit from adjuvant chemotherapy. By means of, the status of the axillaries lymph nodes must be determined at least as to whether any nodes are positive for metastatic cancer (ALN+) or negative (ALN-). If there are any positive nodes, more details are needed. Decisions may have to be made prior to having the whole tumor out and size-measurable. By

whatever measure, the following are the criteria for assignment of size points Resource[Online]Availablefrom:http://poptop.hypermart.net/brcanpi.html

NPI = (0.2×size of tumor(cm)) + grade point + lymph node point

Grade point score

Negative node = 1 point

Positive nodes, low axillaries only = 2 point

Positive nodes, internal mammary only = 2 point

Positive nodes, axillaries

plus internal mammary = 3 point

Positive nodes,

apical axillaries node positivity = 3 point

Lymph node score

Stage A denoted no involvement of regional node = 1 point

Stage B denoted involvement of ≤ 3 axillaries node or involvement of internal mammary node = 2 point

Stage C denote > 3 axillaries node or both internal mammary and axillaries node involvement = 3 point

NPI < 3.4 = doubtful

3.4 ≤ NPI >5.4 = may benefit with chemotherapy

NPI ≥ 5.4 = Must have Chemotherapy

2.3 Review of related study

Demetris, 2009 Quality of Life: QOL is a term that is extensively used by sociologists, philosophers, economists, politicians, and healthcare providers. The term originates from Aristotle's Nicomachean Ethics, dating back to 330 BC, inwhich he recognizes the relation between QOL, happiness, and the subjective values of the individual (Aristotle, 335–323 BC). There is a wide and multidimensional definition for QOL,which relies heavily on patients' sex, age, ethnicity, and religious beliefs. It encompasses personal tastes, hobbies, experiences, perceptions, attitudes, and beliefs, all of which can be divided into 4 primary categories, physical and occupational, psychosocial,social, and somatic.

Ali, 2008 Instruments-Several valid instruments were used to measure quality of life in breast cancer patients. The European Organization for Research and Treatment of Cancer Core Cancer Quality of Life Questionnaire (EORTC QLQ-C30) and its breast cancer specific complementary measure (EORTC QLQ-BR23) and the Functional Assessment Chronic Illness Therapy General questionnaire (FACIT-G) and its breast cancer module (FACIT-B) were found to be the most common and well developed instruments to measure quality of life in breast cancer patients. *Surgery*-different surgical procedures led to relatively similar results in terms of quality of life assessments, although mastectomy patients compared to conserving surgery patients usually reported a lower body image and sexual functioning. *Systemic therapies*-almost all studies indicated that breast cancer patients receiving chemotherapy might experience several side-effects and symptoms that negatively affect their quality of life. Adjuvant hormonal therapies also were found to have similar negative impact on quality of life, although in general they were associated with improved survival. *Quality of life as predictor of survival*-similar to known medical factors, quality of life data in metastasis breast cancer patients was found to be prognostic and predictive of survival time. *Psychological distress*-anxiety and depression were found to be common among breast cancer patient's even years after the disease diagnosis and treatment. Psychological factors also were found to predict subsequent quality of life or even overall survival in breast cancer patients. *Supportive care*-clinical treatments to control emesis, or interventions such as counseling, providing social support and exercise could improve quality of life. *Symptoms*-Pain, fatigue, arm morbidity and postmenopausal symptoms were among the most common symptoms reported by breast cancer patients. As recommended, recognition and management of these symptoms is an important issue since such symptoms impair health-related quality of life. *Sexual functioning*-breast cancer patients especially younger patients suffer from poor sexual functioning that negatively affect quality of life.

B GORIŠEK1, P KRAJNC1 AND I KRAJNC, 2009; this study investigated whether the type of surgical procedure used to treat breast cancer (mastectomy versus breast conserving (lumpectomy) had any effect on the quality of life and social status of women. The prospective analysis included 382 women newly diagnosed with none

Metastasis breast cancer that had undergone a surgical intervention for breast carcinoma at our institution: 198 the post-mastectomy women reported significantly more financial problems, a lowered social status and more physical symptoms compared with the breast-conserving post-lumpectomy patients. The patients that underwent lumpectomy were more satisfied with their body image and their sexual life. Since the adverse financial effects of wage loss can significantly decrease a patient's quality of life, this study indicates that post mastectomy patients in particular need to be protected more effectively against a decline in their social status. Patients had undergone mastectomy with axillaries lymphadenectomy and 184 patients had undergone breast-conserving lumpectomy with local axillaries lymphadenectomy

Ali et al., 2008; In all, 167 patients diagnosed with breast cancer. The mean age of breast cancer patients was 47.2 (SD = 13.5) years and the vast majority (82.6%) underwent mastectomy. At eighteen months follow-up data for 99 patients were available for analysis. The results showed there were significant differences in patients' functioning and global quality of life at three points in time ($P < 0.001$). Although there were deteriorations in patients' scores for body image and sexual functioning, there were significant improvements for breast symptoms, systematic therapy side effects and patients' future perspective ($P < 0.05$).

Malarat (2008) subjects were breast cancer female patients, average age 48.63 years, Almost of subject was operated during 3 to 6 month that stage 2 and their received chemotherapy so some had side effect after operation swelling in the arms and anorexia. Subjects were in intermediate level and occupation category and side effect after operation could significantly predict quality of life in breast cancer. The majority of breast cancer no depression and related factor in depression was joint stiffness could significantly predict quality of life in breast cancer.

CHAPTER III
METHODOLOGY

3.1 Research Design

This study was a cross-sectional study of quality of life and quality of medical services among patients with post-operative breast cancer in Roi-Et Province**,** Thailand. Study goals were to characterize these characteristics, to assess their association with each other, and to assess associations of socio-demographic factors with them,

3.2 Study Area

Study area: This research studies post operative which at women ≥15 years of age in surgical ward. Roi-ET Hospital, Roi-Et, Province, Thailand.

3.3 Study Populations

Population inhabitants women ≥15 years of age in surgical ward. Roi-ET Hospital, Roi-Et, Province.

3.4 Sample Size

The samples cases are categorized by breast cancer with post operation age of 15 years a go in surgical ward, Roi-ET hospital.

Source: Kish & Leslie, Survey Sampling (Statcalc module of EpiInfo, Population Survey module of Statcalc).

Sample size = 250 cases from a total population of 764 female breast cancer patients at the surgical ward.

Expected proportion with good quality of life (P) = 70% (From Quality of life and depression in breast cancer patients after surgery in King Chulalongkorn Memorial Hospital**,** (Malarat P, Pityaratstian 2008)

Sample size = $n/(1+(n/764)$

$N = Z \times Z(P(1-P))/(D^2)$

where Z=1.96, P=0.7, D=acceptable error = 0.05

= 227 + 10% = 250 post-operative breast cancer female patients were included in this study. Patients were interviewed within 2 weeks of their breast cancer surgery.

3.5 Health service quality score and quality of life score

Health service quality was measured with 9 questions that have previously been used in several provinces of Thailand, (Thai-BREF Questionnaire). Each question employed a 3-level Likert scale (1=lowest to 3=highest). These 9 responses were summed to give a service quality score, with minimum and maximum possible values of 9 and 27, respectively.

Quality of life was measured with 26 questions (Thai version of the WHOQOL Questionnaire). Each question employed a 5-level Likert scale (1=lowest to 5=highest). These 26 responses were summed to give an overall quality of life score (QOL score), with minimum and maximum possible values of 26 and 130, respectively. Higher service quality score indiced better perceived service quality, and higher QOL score indicated better QOL.

Descriptive statistics included frequency distributions, means, and standard deviations. Inferential statistics were used to explore the relationship between service quality score and QOL score, and relationships of independent variables with these 2 scores (see conceptual framework). Service quality score and QOL score were the dependent variables; they were treated as continuous data. Independent variables were grouped into 2 or more categories. Inferential statistical tests included Pearson correlation, independent-samples t-tests (for independent variables with 2 categories), and one-way analysis of variance (ANOVA, for independent variables with >2 categories). All analysis was done using SPSS software.

3.6 Measurement Tool

Measurement Tool the questionnaire composes the study Factors affecting quality of life among patients' with post operation of breast cancer.

The questionnaire composes: 2 parts

Part 1: Questionnaires; post operation of breast cancer which at least age of 15 years, in surgical ward, Roi-ET hospital

Part 2 Tools composes; content 3 part such as part 1 General Information, Part 2 Questionnaire, the quality services, convenience and Health information, and Part 3 Questionnaires, Health – related quality of life post operative breast Cancer (WHOQOL-Bref).

The questionnaire was pre-tested with 30 post-operative breast cancer patients in the surgical ward, who were not included in the full-scale study. Reliability was assessed with Cronbach's alpha coefficient. These were in an acceptable range for service quality (alpha=0.77, 9 items) and QOL (alpha=0.75, 26 items).

population. The reliability of the questionnaire was calculated by using Cronbach's alpha coefficient.

The period of data collection was October-November 2009.

3.7 Ethical consideration

Before conducting the research, approval was obtained. from the Ethical Committee of Chulalongkorn University (through the College of Public Health Sciences. For the past several decades this country has attempted to attack its massive and quality of life patient's breast cancer, health care problems by answering a simple question: Factors variation quality of life in women Relate to breast Cancer? Or Behaviors health service in a women Relate to breast cancer? The clear assumption of this question is that avoiding Breast cancer problems are a behavioral ability, skill, or capacity and health care in patient's post operative breast cancer because she lacks these behavioral capacities. Despite the logical poor health care, quality of life and low income an individual idiom of abilities, power, and capacities, many patient breast cancer experts persist in seeing this failure as a disease condition predisposed by psychological, genetic, social, or cultural factors.

The implication of these findings for public health policy for breast cancer would be the development of policies at all levels of government to reduce the per capita early detection or screening test by self-care through more adequate public and health promotion, to self-care in patient post operative breast cancer, exercise, health foods and early detection in people.

1) Should advocate and work for the empowerment of community members and conditions necessary for health are accessible to all.

2) Should seek the information needed to implement effective policies and programs that protect and promote health.

3.8 Expected Benefit and Applications

This study will give the baseline data on the accessibility to health services and health – related quality of life using WHOQOL – BREF among patients with operative breast cancer in Roi-Et Province, Thailand.

This study is expected to assess the relationships between accessibility to health services, health education and health – related quality of life among patients with operative breast cancer in Roi-Et Province, Thailand.

In combination with other research, findings of this study should help in developing policy and guidelines regarding improving health services and QOL for post-operative breast cancer patients in Thailand.

CHAPTER IV
RESULTS

Quantitative Result

Quantitative result includes socio-demographic characteristics of respondents, gender, education, occupation, insurance, living conditions, nature of accessibility to health care services and health-related quality of life. Finally, associations were analyzed between independent variables and health-related quality of life among patients with post-operative breast cancer, Thailand.

4.1 Socio-demographic characteristics of respondents

According to the result from the data collection, it was found that most the respondent were 40 - 49 years (67.6%) the most, next 60-79 years (17.2%) and the last 20-39 years (14.0%), the education majority primary education (57.6%) occupation; famer (52.4%) the enough of the income: enough (51.6%), Insurance: gold cards Gold card 30 bath (90.0%) A person in family the sickness, health service: No problem (93.2%)

Table 4.1: The number and percentage of respondent by socio-demographic characteristics (n=250)

Characteristic	Number (250 cases)	Percent
Age (Years)		
- 15 -19 years	1	0.4
- 20 – 39 years	35	14.0
- 40 – 59 years	169	67.6
- 60 – 79 years	43	17.2
- More than 80 years	2	0.8

$\overline{X}$ = 49, SD.11.34

Table 4.1: (Continual) The number and percentage of respondent by socio-demographic characteristics (n=250)

Characteristic	Number (250 cases)	Percent
Education achievement		
- No Education	9	3.6
- Primary education	144	57.6
- Secondary education	75	30.0
- Diploma	3	1.2
- bachelor's degree	19	7.6
Occupation		
- Farmer	131	52.4
- Trade	75	30
- Government servant	17	6.8
- Housekeeper	25	10
- Other	2	0.8
Income sufficiency		
- Enough and surplus	20	8.0
- Just enough	129	51.6
- Not enough	101	40.4
Insurance type		
- Gold card 30 bath	225	90
- Gold card pay	0	0
- Being government servant	22	8.8
- Social security	2	0.8
When you are sick, do you receive education and social support from family, relatives , neighbor , volunteer or community leader		
- Yes	250	100
- No	0	0
When a family member is ill, how is the health service?		
- No problem	233	93.2
- Problem	17	6.8

4.2 The quality services, convenience and Health information

It was found that most of respondents were the hospital there is the convenient, and safe in taking services, level moderate (92.4%), next you receive advice practice, observe unusual symptoms and health care when stay a house, level high (57.6%), and the last you have to help about hygiene care and eating, level moderate (56.8%).

Table 4.2: Number and percentage of respondents by the quality services, convenience and Health information

The quality services, convenience and Health information	Good N, %	Middle N, %	Poor N, %
1.The hospital there is the convenient, and safe in taking services	18 7.2%	231 92.4	1 0.4
2.You have the contentment in service	137 54.8	113 45.2	0 0.00
3.You have to help about hygiene care and eating	106 42.4	142 56.8	2 0.8
4.In the hospital, you received information regarding your medications and treatment plan.	91 36.4	155 62.0	4 1.6
5.You receive an orientations about agreement and the visit is stay in the hospital	104 41.6	135 54.0	11 4.4
6.You received information about questions, problems, or uncertainties regarding your treatment plan.	102 40.8	141 56.4	7 2.8
7.You receive necessary data from nurse about preparation and health care, before and after operation	116 46.4	124 49.6	10 4.0
8. You receive the data about condition prevention has complications from post operative, such as , the exercise protects the shoulder joint sticks, infected wound post operative	108 43.2	134 53.6	8 3.2
9.You receive advice practice, observe unusual symptoms and health care when stay a house	144 57.6	102 40.8	4 1.6

4.3 Quality of life

Questionnaires, Health – related quality of life post operative breast Cancer (WHOQOL-BREF)

Table 4.3: Number and percentage of respondents by level of health quality of life measured by WHOQOL-BREF (n=250)

Quality of life post operative for breast Cancer	Best (5) N, %	Good (4) N, %	Neither (3) N, %	Bad (2) N, %	Poor (1) N, %
1.How satisfied are you with you health?	1	33	215	1	0
	0.4%	13.2	86.0	0.4	0.0
2.To what extent do you feel that physical pain prevents you from doing what you need to do?	1	191	52	4	2
	0.4	76.4	20.8	1.6	0.8
3.Do you have enough energy for everyday life?	86	0	159	5	0
	34.4	0.0	63.6	2.0	0.0
4.How satisfied are you with your sleep?	3	109	138	0	0
	1.2	43.6	55.2	0.0	0.0
5.How much do you enjoy life?	5	144	95	5	1
	2.0	57.6	38.0	2.0	0.4
6.How well are you able to concentrate?	4	105	137	3	1
	1.6	42.0	54.8	1.2	0.4
7.Are you able to accept your bodily appearance?	3	134	108	5	0
	1.2	53.6	43.2	2.0	0.0
8.How satisfied are you with yourself?	7	134	104	4	1
	2.8	53.6	41.6	1.6	0.4
9.How often do you have negative feelings such as blue mood, despair, anxiety, depression?	1	42	67	96	44
	0.4	16.8	26.8	38.4	17.6
10.How satisfied are you with your ability to perform your daily living activity?	5	63	176	3	0
	2.0	25.2	71.6	1.2	0.0
11.How much do you need any medical treatment to function in your daily life?	8	137	101	3	1
	3.2	54.8	40.4	1.2	0.4
12 How satisfied are you with your capacity for work?	3	120	123	4	0
	1.2	48	49.2	1.6	0.0
13.How satisfied are you with your personal relationships?	8	90	151	1	0
	3.2	36	60.4	0.4	0.0
14.How satisfied are you with the support you get from your friends?	5	125	117	3	0
	2.0	50.0	46.8	1.2	0.0
15.How safe do you feel in your daily life?	5	31	111	2	1
	2.0	52.4	44.4	0.8	0.4
16.How satisfied are you with the conditions of your living place?	15	113	121	1	0
	6.0	45.2	48.4	0.4	0.0

Table 4.3: (Continual) Number and percentage of respondents by level of health quality of life measured by WHOQOL-BREF (n=250)

Quality of life post operative for breast Cancer	Best (5) N, %	Good (4) N, %	Neither (3) N, %	Bad (2) N, %	Poor (1) N, %
17.Have you enough money to meet your needs?	1	130	109	10	0
	0.4	52.0	43.6	4.0	0.0
18.How satisfied are you with your health?	4	25	221	0	0
	1.6	10.0	88.4	0.0	0.0
19.How available to you is the information that you need in your day-to-day life?	2	167	81	0	0
	0.8	66.8	32.4	0.0	0.0
20.To what extent do you have the opportunity for leisure activities?	4	88	155	3	0
	1.6	35.2	62.0	1.2	0.0
21.How healthy is your physical environment?	6	95	149	0	0
	2.4	38.0	59.6	0.0	0.0
22.How well are you able to get around?	3	104	137	6	0
	1.2	41.6	54.8	2.4	0.0
23.To what extent do you feel your life to be meaningful?	9	84	153	4	0
	3.6	33.6	61.2	1.6	0.0
24.How satisfied are you with your transport?	5	102	141	2	0
	2.0	40.8	56.4	0.8	0.0
25.How satisfied are you with your sex life?	2	105	130	11	2
	0.8	42.0	52.0	4.4	0.8
26.How would you rate your quality of life?	2	117	131	0	0
	0.8	46.8	52.4	0.0	0.0

4.4 Quality of life Level

For the 26 questions of WHOQOL-BREF, the possible scores ranged between 26 and 130 points. The QOL was then determined by dividing the scores into three groups as follow (World Health Organization, 1996b)

Table 4.4: Quality of life Level

Quality of life Level	Number	Percentage
Good (96 – 130)	121	48.4
Middle (61 – 95)	128	51.2
Poor (26 - 60)	1	0.4

The most of the respondents had a middle level of Quality of life (51.2%), followed by goods (48.4%) and poor (0.4%) level of quality of life post operative breast Cancer respectively.

Scores for service quality and quality of life were calculated. The total number of points in the 9 service quality-related questions was the service quality score. The total number of points in the 26 quality of life questions was the quality of life score.

Table 4.5: Descriptive statistic by SQ Score and QOL Score

	N	Minimum	Maximum	Mean	Std. Deviation
SQScore	250	16	27	21.52	2.593
QOLScore	250	75	119	87.32	5.455

Relationship between SQSCORE – relate Quality of life score and respondents characteristics analyzed by Correlations test (n = 250)

According to the result from the data collection, Relationship between the service quality score and the quality of life score, analyzed by Correlations was 0.569 and Correlation was statistically significant ($p < 0.001$).

Table 4.6: Relationship between age and service quality score, and age and quality of life score, analyzed by correlation analysis (n= 250)

Age	Service quality score	Quality of life score
Pearson correlation	0.033	-0.072
p-value	0.602	0.258

According to the result from the data collection, there was no significant relationship between age and service quality score of quality of life score ($p \geq 0.258$, table 4.6).

Table 4.7: Relationship between educational level and service quality score, and educational level and quality of life score, analyzed by one-way ANOVA (n= 250)

Variable	Educational Level	N	Mean score	SD	P-value
Service quality score	1. Primary	153	21.79	2.62	0.005
	2. Secondary	75	20.73	2.55	
	3. Other	22	22.27	1.93	
Quality of life score	1. Primary	153	87.93	6.07	0.007
	2. Secondary	75	85.69	4.00	
	3. Other	22	88.59	3.98	

In 1-way analysis of variance (ANOVA), educational level was significantly associated with both scores ($p \leq 0.007$), but directions of associations were not regular. These scores were highest by a small amount in the highest education category (table 4.7).

Table 4.8: Relationship between income and service quality score, and income and quality of life score, analyzed by one-way ANOVA (n= 250)

Variable	Income level	N	Mean score	SD	P-value
Service quality score	1. Surplus	20	23.50	2.01	<0.001
	2. Enough	129	19.98	2.19	
	3. Not enough	101	23.09	1.87	
Quality of life score	1. Surplus	20	92.15	8.23	<0.001
	2. Enough	129	84.10	3.88	
	3. Not enough	101	90.48	3.73	

Scores were significantly associated with reported income ($p<0.001$), but directions of associations were not regular. For unclear reasons, scores were lowest at the middle income level (table 4.8)

Table 4.9: Relationship between occupation and service quality score, and occupation and quality of life score, analyzed by one-way ANOVA (n= 250)

Variable	Occupation	N	Mean score	SD	P-value
Service quality score	1. Farmer	131	21.63	2.63	0.579
	2. Trade	75	21.25	2.43	
	3. Other	44	21.64	2.78	
Quality of life score	1. Farmer	131	87.04	5.70	0.385
	2. Trade	75	87.21	5.25	
	3. Other	44	88.34	5.04	

Neither score was significantly associated with occupation ($p \geq 0.385$, table 4.9).

Table 4.10: Relationship between insurance status and service quality score, and insurance status and quality of life score, analyzed by independent-samples t-test (n= 250)

Variable	Insurance status	N	Mean score	SD	P-value
Service quality score	1. 30-baht	225	21.37	2.56	0.007
	2. Other	25	22.84	2.53	
Quality of life score	1. 30-baht	225	87.09	5.45	0.049
	2. Other	25	89.36	5.19	

Service quality score and quality of life score were significantly lower in participants in the 30-baht scheme than in those with other insurance plans ($p \leq 0.049$, table 4.10).

The question, "Did you sickness, family, relative, volunteer, community leader, health education and health support?" could not be analyzed, because all 250 participants answered "yes" to this question.

Table 4.11: Relationship between problem in family and service quality score, and problem in family and quality of life score, analyzed by Independent-samples T – test (n= 250)

Variable	Level	N	Mean Score	SD	P-value
Service quality score	1.NoProblem	233	21.39	2.56	0.457
	2.Problem	17	23.24	2.49	
Quality of life score	1.NoProblem	233	87.18	5.48	0.440
	2.Problem	17	89.29	4.90	

There were no significant relationships between scores and presence of health-related problems in family members ($p \geq 0.440$, table 4.11).

CHAPTER V
DISCUSSION AND RECOMMENDATIONS

5.1 Discussion

The research on nature of accessibility to health care service and health related quality of life. Descriptive to the study "factors affecting quality of life among patients' with post operation of breast cancer in Roi-Et, Province. Thailand" was a quantitative cross-sectional study. Health-related quality of life was assessed by using the WHOQOL-BREF. For the discussion, some comparisons were made with the studies which used SF 36 and SF 12. A study in turkey reported that the concurrent validity of the health-related quality of life scale were test by comparing related domain of WHOQOL-BREF and SF 36, and was found satisfactory factors(Dundar et al.,2002).

Most of the respondents had a middle level of Quality of life (51.2%), followed by good (48.4%) and poor (0.4%) level of quality of life post operative breast Cancer respectively. The mean score of total quality of life by socio-demographic characteristics. According to the result from the data collection, by Independent T – test, ANOVA test, was used to analyzed the relationship between education level, type of occupation, income, and insurance health related quality of life. Statistically significant difference was found between education level, type of occupation, income, insurance and health related quality of life. Generally, directions of associations were not regular.

Relationship between SQSCORE – relate Quality of life score and respondent's characteristics analyzed by Correlations was 0.569 and Correlation is significant ($p<0.001$). Relationship between education – relate SQSCORE and Quality of life score respondents characteristics analyzed by ANOVA test. SQScore and QOLScore is significant at $p= 0.005$, and $p=0.007$. Relationship between Incomes – relate SQSCORE and Quality of life score respondents characteristics analyzed by ANOVA test. SQScore and QOLScore is significant at $p< 0.001$. Relationship between Occupation – relate SQSCORE and Quality of life score respondents characteristics analyzed by ANOVA test. SQScore is not significant $P=0.579$, and

QOL score was also not significant (p=0.385). Relationships between Insurance - relate SQSCORE and Quality of life score, by Independent T – test. Independent T – test is significant P-value at 0.007 and P-value at 0.049. Participants in the 30-baht plan had lower service quality and QOL scores than other participants. Independent T – test was used to analyze the relationships between problems in family – relate SQSCORE and Quality of life score, by Independent T – test. Independent T – test is not significant P-value at 0.457 and P-value at 0.440.

Result of research follows the objective.

1. General quality of the sample meets that, patients breast cancer between age 40–59 years, the most. The study this time correspond the incident of breast cancer, the people in west country, by united state Canada and the country in Europe and east country: The Republic of China, Japanese and Thailand. For the people of Thailand meets that, age the less 30 years, the majority more than 45 years and the most age more than and majority more than 55 years (Ministry of Public Health)

2. The quality of life patients with post operative breast cancer. Most of the respondents had a middle level of Quality of life (51.2%), followed by good (48.4%) and poor (0.4%) level of quality of life post operative breast Cancer respectively. The research related to study (Malarat P, Pityaratstian N., 2008). Nearly all participants were operated during 3 to 6 month that stage 2 and their received chemotherapy so they were side effect after operation swelling in the arms and anorexia. The breast cancer patients were in intermediate level and occupation category and side effect after operation could significantly predict quality of life in breast cancer. The majority of breast cancer no depression and related factor in depression was joint stiffness could significantly predict quality of life in breast cancer.

5.2 Limitations

This study has limitations. All participants were interviewed a short time after surgery. Findings regarding service quality score and QOL score may not be generalizable to longer times after surgery. Similarly, degrees of association between these scores and independent variables could change as time since surgery becomes

longer. Further research is needed to characterize the time course of the studied scores, and their associations with independent variables.

Not all potentially relevant independent variables were assessed in this study. For example, as discussed above, previous research has shown associations of type of treatment with QOL. QOL tends to be better in patients with lumpectomy than with mastectomy. The effect of treatment on service quality score and QOL score were not analyzed in this study. Again, further research on this and other characteristics is needed.

5.3 Recommendation

To improve research the patients with post operative breast cancer, Roi-Et Hospital, Roi-Et Province, Thailand. The following recommendation are presented:

Quality of life level: almost all of the respondents 51.2% had moderate level of quality of life. But Breast cancer is chronic disease heal don't be lost , there is period of sickness time long ago , high cost in treatments, the researcher recommendation:

1. Because Breast cancer is chronic disease and the anxiety of the patient, should establish the clinic, for health care breast cancer in Roi-Et Hospital and Home health care, to patients of health serve of good quality.

2. The organizations should incorporate the breast cancer health in national and sectoral policies for sustainable development, poverty reduction, employment, trade, environmental protection, and education.

3. Waiting time from registration until the respondents meet health care service provider is a barrier to access health care services and it should lowered, and then will reduce direct cost and indirect cost for treatment of breast cancer.

4. Although the respondents in this study came from the same county of origin, the social contexts of diverse minorities can play a key role in assessing health-related quality of life. There is a need to do this kind of study in different cultures.

5. Although WHOQOL-BREF instrument was proved suitable to apply on most of the target population to measure their quality of life status, to apply the WHOQOL-BREF in Breast cancer populations, there may also be a need to modify

the wording of the item on sexual activity to be more suitable for respondents who are single.

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APPENDICES

APPENDIX A

Thai-Language Questionnaire

แบบสอบถาม
เรื่อง ปัจจัยที่มีผลต่อคุณภาพชีวิตของผู้ป่วยหลังผ่าตัดมะเร็งเต้านม
หอผู้ป่วยศัลยกรรม ชั้น 2 โรงพยาบาลร้อยเอ็ด

.....

แบบสอบถามประกอบด้วย

ส่วนที่ 1 แบบบันทึกข้อมูลชุดนี้ เป็นแบบสอบถาม ผู้มารับบริการ เพศหญิง อายุ 15 ปีขึ้นไป ที่มารับบริการหอผู้ป่วยศัลยกรรม ชั้น 2 โรงพยาบาลร้อยเอ็ด

ส่วนที่ 2 เครื่องมือชุดนี้ประกอบด้วยเนื้อหา 4 ส่วน คือ ส่วนที่ 1 ข้อมูลส่วนบุคคล ส่วนที่ 2 แบบวัดคุณภาพบริการ ความสะดวก และ การสื่อสารประชาสัมพันธ์ ส่วนที่ 3 ความรู้และความเข้าใจโรคมะเร็งเต้านม และส่วนที่ 4 แบบประเมินคุณภาพชีวิตผู้ป่วยหลังผ่าตัดมะเร็งนม

ส่วนที่ 1 แบบสัมภาษณ์ข้อมูลส่วนบุคคล

คำชี้แจง เมื่อท่านอ่านแบบสัมภาษณ์ข้อมูลส่วนบุคคลแล้วโปรดทำเครื่องหมาย ✔ ในช่อง ☐ หน้าของข้อความ หรือ เติมคำลงในช่องว่างที่ตรงกับความเป็นจริง

1. ข้อมูล ทั่วไป

1.1 อายุ..... ปี

2. ระดับการศึกษา

☐ ไม่ได้รับการศึกษา ☐ ประถมศึกษา ☐ มัธยมศึกษา
☐ อนุปริญญา ☐ ปริญญาตรี ☐ ปริญญาตรี

3. อาชีพ

☐ ทำการเกษตร ☐ ค้าขาย ☐ รับราชการ
☐ แม่บ้าน ☐ อื่น ระบุ .....

4. ความเพียงพอของรายได้

☐ เพียงพอและเหลือเก็บ ☐ เพียงพอแต่ไม่เหลือเก็บ ☐ ไม่เพียงพอ

5. เมื่อท่านเจ็บป่วยเข้ารับการรักษาในโรงพยาบาล ท่านใช้สิทธิในการเข้ารับการรักษาครั้งนี้

☐ บัตรทอง 30 บาท ☐ บัตรทองเสียค่าทำเนียม ☐ เบิกข้าราชการ
☐ ประกันสังคม

6. เมื่อท่านเจ็บป่วย บุคคลในครอบครัว ญาติพี่น้อง เพื่อนบ้าน อาสาสมัคร และผู้นำชุมชน ได้ให้คำแนะนำ และการช่วยเหลือสนับสนุนใช่หรือไม่

☐ ใช่ ☐ ไม่ใช่

7. บุคคลในครอบครัวของท่าน มีปัญหาที่ต้องได้รับการดูแล

☐ ไม่มีปัญหา ☐ มีปัญหา

ส่วนที่ 2 แบบวัด คุณภาพบริการ ความสะดวก และ การสื่อสารประชาสัมพันธ์

ข้อ	คุณภาพบริการ ความสะดวกและการประชาสัมพันธ์	มาก	ปานกลาง	น้อย
1	โรงพยาบาลมีความสะดวก ปลอดภัยในการรับบริการ			
2	ท่านมีความพึงพอใจในการมารับบริการครั้งนี้			
3.	ท่านได้รับการติดตาม เพื่อช่วยเหลือเกี่ยวกับเรื่องการดูแลสุขวิทยาส่วนบุคล และการรับประทานอาหาร			
4.	ท่านได้รับ การอธิบายเกี่ยวกับการรับประทานยา และแผนการรักษาขณะอยู่ในโรงพยาบาล			
5.	ท่านได้รับคำแนะนำ เกี่ยวกับกฎระเบียบและการเยี่ยมขณะอยู่พักอาศัยในโรงพยาบาล			
6.	ท่านได้รับคำแนะนำ อธิบายเกี่ยวกับข้อซักถาม ปัญหาหรือข้อสงสัยในแผนการรักษาของแพทย์			
7.	ท่านได้รับข้อมูลที่จำเป็นจากพยาบาลเกี่ยวกับการเตรียมตัว และการดูแลสุขภาพ ก่อนและหลังการผ่าตัด			
8.	ท่านได้รับข้อมูลเกี่ยวกับการป้องกันภาวะแทรกซ้อนจากการผ่าตัด เช่น การบริหารร่างกายป้องกันข้อไหล่ติด การติดเชื้อจากการผ่าตัด			
9.	ท่านได้รับคำแนะนำการปฏิบัติตัว สังเกตอาการผิดปกติและการดูแลสุขภาพเมื่อกลับไปอยู่บ้าน			

ส่วนที่ 3 แบบประเมินคุณภาพชีวิตของผู้ป่วยหลังผ่าตัดมะเร็งเต้านม

<u>คำชี้แจง</u>

แบบสอบถามชุดนี้ มีวัตถุประสงค์ เพื่อต้องการทราบถึงการเปลี่ยนแปลงระดับคุณภาพชีวิต ซึ่งประกอบด้วยคุณภาพชีวิต 4 ด้านคือ การรับรู้ทางด้านร่างกายของบุคคลซึ่งมีผลต่อชีวิตประจำวัน การรับรู้สภาพทางด้านจิตใจของตนเอง การรับรู้เรื่องความสัมพันธ์ของตนเองกับบุคคลอื่น และการรับรู้เกี่ยวกับสิ่งแวดล้อมที่มีผลต่อการดำเนินชีวิต

ข้อคำถามต่อไปนี้จะถามถึงประสบการณ์อย่างใดอย่างหนึ่งของท่าน ในช่วง 2 สัปดาห์ที่ผ่านมา ให้ท่านสำรวจตัวท่านเอง และประเมินเหตุการณ์ หรือความรู้สึกของท่าน และทำเครื่องหมาย / ลงในช่องคำตอบที่เหมาะสมและเป็นจริงกับตัวท่านมากที่สุด โดยคำตอบ มี 5 ตัวเลือก คือ

- ไม่เลย (1) หมายถึง ท่านไม่มีความรู้สึกเช่นนั้นเลย รู้สึกไม่พอใจมาก หรือรู้สึกแย่มาก
- เล็กน้อย (2) หมายถึง ท่านมีความรู้สึกเช่นนั้นนานๆครั้ง รู้สึกเช่นนั้นเล็กน้อย รู้สึกไม่พอใจ หรือรู้สึกแย่
- ปานกลาง (3) หมายถึง ท่านมีความรู้สึกเช่นนั้นปานกลาง รู้สึกพอใจระดับกลางๆ รู้สึกแย่ระดับกลาง ๆ
- มาก (4) หมายถึง ท่านมีความรู้สึกเช่นนั้นบ่อยๆ รู้สึกพอใจ หรือรู้สึกดี
- มากที่สุด (5) หมายถึง ท่านมีความรู้สึกเช่นนั้นเสมอ รู้สึกเช่นนั้นมากที่สุด หรือรู้สึกว่าสมบูรณ์ รู้สึก พอใจมาก รู้สึกดีมาก

ข้อ	ในช่วง 2 สัปดาห์ที่ผ่านมา	มากที่สุด	มาก	ปานกลาง	เล็กน้อย	ไม่เลย
1	ท่านพอใจกับสุขภาพของท่านในตอนนี้เพียงใด					
2	การเจ็บปวดตามร่างกาย เช่น ปวดหัว ปวดท้อง ปวดตามตัว ทำให้ท่านไม่สามารถทำในสิ่งที่ต้องการมากน้อยเพียงใด					
3	ท่านมีกำลังเพียงพอที่จะทำสิ่งต่างๆ ในแต่ละวันหรือไม่ (ทั้งการงานหรือการดำเนินชีวิตประจำวัน)					
4	ท่านพอใจกับการนอนหลับของท่านมากน้อยเพียงใด					
5	ท่านรู้สึกพอใจในชีวิต (เช่น มีความสุข ความสงบ มีความหวัง) มากน้อยเพียงใด					
6	ท่านมีสมาธิในการทำงานต่างๆดีเพียงใด					
7	ท่านรู้สึกพอใจในตัวท่านเองมากน้อยแค่ไหน					
8	ท่านยอมรับในรูปร่างหน้าตาของตัวเองได้ไหม					
9	ท่านรู้สึกไม่ดีเช่น รู้สึกเหงา เศร้า หดหู่ สิ้นหวัง วิตกกังวลบ่อยแค่ไหน					

ข้อ	ในช่วง 2 สัปดาห์ที่ผ่านมา	มากที่สุด	มาก	ปานกลาง	เล็กน้อย	ไม่เลย
10	ท่านรู้สึกพอใจมากน้อยแค่ไหนที่สามารถทำอะไรๆ ผ่านไปได้ในแต่ละวัน					
11	ท่านจำเป็นต้องไปรับการรักษาพยาบาล ตรวจสุขภาพ รับการรักษาอย่างต่อเนื่อง					
12	ท่านพอใจกับความสามารถในการทำงานของท่านมากแค่ไหนในการประกอบอาชีพ					
13	ท่านพอใจต่อการผูกมิตรหรือเข้ากับคนอื่น แค่ไหน					
14	ท่านพอใจกับการช่วยเหลือ สนับสนุน แค่ไหน					
15	ท่านมีความมั่นคง ปลอดภัย ดูแลตนเองได้ถูกต้อง ในแต่ละวันแค่ไหน					
16	ท่านพอใจกับสภาพความเป็นอยู่ ที่พักอาศัย ที่ตนอยู่ตอนนี้มากน้อยเพียงใด					
17	ท่านมีเงินพอใช้จ่ายตามความจำเป็นมากน้อยเพียงใด					
18	ท่านสามารถเข้าถึงการบริการด้านสาธารณสุข ตามความจำเป็นเพียงใด					
19	ท่านได้รู้เรื่องราวข่าวสารที่จำเป็นในชีวิตแต่ละวันมากน้อยเพียงใด					
20	หากท่านมีความวิตกกังวลเกี่ยวกับการเจ็บป่วย มีโอกาสโอกาสได้พักผ่อน คลายเครียดมากน้อยเพียงใด					
21	การอยู่ในสภาพแวดล้อมที่ดีดี ส่งผลต่อสุขภาพขงท่านมากน้อยแค่ไหน					
22	ท่านมีความสะดวก สบายในการเดินทาง เพื่อใช้บริการที่โรงพยาบาลร้อยเอ็ด (หมายถึง การคมนาคม) มากน้อยแค่ไหน					
23	ท่านรู้สึกว่าชีวิตท่านมีความหมายมากน้อยแค่ไหน					
24	ท่านสามารถทำกิจกรรมประจำวัน ในแต่ละวันได้มากน้อยเพียงใด					
25	เมื่อท่านเจ็บป่วย ท่านมีปัญหาเรื่องท่านพอใจในชีวิตทางเพศมากน้อยแค่ไหน					
26	ท่านมีความพึงพอใจกับคุณภาพชีวิต แค่ไหน					

APPENDIX B

English-Language Questionnaire

Factors affecting quality of life among patients' with post operation of breast cancer in Roi-Et hospital, Roi-Et Province

.....

The questionnaire composes:

Part 1: Questionnaires; post operation of breast cancer which at least age of 15 years or higher, in surgical ward, Roi-ET hospital

Part 2 Tools composes; content 4 part such as part: 1 General Information, Part: 2 Questionnaire, the quality services, convenience and Health information, part: 3 Questionnaires, Health – related quality of life post operative breast Cancer (WHOQOL-Bref)

Part 1: General Information

Instruction: The following questions are about your demographic information. Please mark ✔ in the ☐ please also write down in the blank space where provide.

1. Gender

   1.1 Age……Years

2. Education achievement

   ☐ No Education ☐ Primary education ☐ Secondary education

   ☐ Diploma ☐ bachelor's degree ☐ Higher bachelor's degree

3. Occupation

   ☐ Farmer ☐ Trade ☐ Government servant

   ☐ Housekeeper ☐ Others (Please specify) ……..

4. The enough of the income

   ☐ Enough and be left pick ☐ enough but, with nothing left pick

   ☐ not enough

5. Did your feel any sickness to take the preservation in the hospital, you use the right in reaching takes the insurance?

   ☐ Gold card 30 bath ☐ Gold card pay

   ☐ Bring government servant ☐ Social security

6. Did your sickness, family of member, relatives, neighbor, volunteers, and community leader, health education and social support.

☐ Yes ☐ No

7. Family of member, a problem is health care?

☐ No, problem ☐ Problem

Part 2 Questionnaire, the quality services, convenience and Health information

No	The quality serves, convenience and Health information	Good	Middle	Poor
1	The hospital has the convenience , safe in taking serves			
2	You have the contentment level of health service this time			
3	You have to help about hygiene care and eating			
4	You receive the explanation about eating medicine and the conspiracy heals stay in the hospital			
5	You receive an orientations about agreement and the visit is stay in the hospital			
6	You receive an advice , explain about questions, problem or the doubt in the conspiracy heals of a doctor			
7	You receive necessary data from nurse about preparation and health care, before and after operative			
8	You receive the data about condition prevention has complications from post operative, such as , the exercise protects the shoulder joint sticks, infected wound post operative			
9	You receive advice practice, observe unusual symptoms and health care when stay a house			

Part 3: Questionnaires, Health – related quality of life post operative breast Cancer (WHOQOL-Bref)

Introduction

The following questions ask how you feel about your quality of life, health other areas of your life. I will you read out each question to you, along with the response option. Please choose answer that appears most appropriate. If you are unsure about which response to give to a question, the first response you think of is often the best one.

No	In during the last 2 weeks	Best	good	Neutral	Bad	Worst
1	How satisfied are you with you health?					
2	To what extent do you feel that physical pain prevention you from doing what you need to do?					
3	Do you have enough energy for everyday life?					
4	How satisfied are you with your sleep?					
5	How much do you enjoy life?					
6	How well are you able to concentrate?					
7	Are you able to accept your bodily appearance?					
8	How satisfied are you with yourself?					
No	In during the last 2 weeks	Best	good	Neither	Bad	Worst
9	How often do you have negative feelings such as blue mood, despair, anxiety, depression?					
10	How satisfied are you with your ability to perform your daily living activity?					

No	In during the last 2 weeks	Best	good	Neither	Bad	Worst
11	How much do you need any medical treatment to function in your daily life?					
12	How satisfied are you with your capacity for work?					
13	How satisfied are you with your personal relationship?					
14	How satisfied are you with the support you get from your friends?					
15	How safe do you feel in your daily life?					
16	How satisfied are you with the conditions of your living place?					
17	Have you enough money to meet your needs?					
18	How satisfied are you with your health?					
19	How available to you is the information that you need in your day-to-day life?					
20	To what extent do you have the opportunity for leisure activities?					
21	How healthy is your physical environment?					
22	How well are you able to get around?					
23	To what extent do you feel your life to be meaningful?					
24	How satisfied are you with your transport?					
25	How satisfied are you with your sex life?					
26	How would you rate your quality of life?					

APPENDIX C

Budget

In this research project, budget was categorized as followed…

Instruments and materials

From, an office researches Roi-Et Hospital

1. Documentary, research report cost amount
   20 X 100 bath total 2,000 baths
2. Data analysis cost total 3,000 baths
3. Copy referable cost total 1,000 baths
4. Data collection cost amount 250 X 15 bath total 3,750 baths
5. Follow interview cost and home visit in community
   20 X 100 bath total 2,000 baths
6. Adviser cost total 5,000 baths

Total budget 16,750 baths

APPENDIX D

Time schedule

Research/Project Activities	Time Frame (Month)								
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mach	April
1. Literature review	→	→							
2. Tool development for data collecting	→	→	→	→	→				
3. Budget assessment and research budget fund raising	→	→	→	→	→	→			
4. Field preparation and data collection			→	→	→	→	→	→	
5. Data analysis and interpretation				→	→	→	→	→	→
6. Report writing						→	→	→	→

VITAE

Name	: Mr.Ekkasit Mamanee
Date of birth	: 16 April 1979
Educational Achievement	: Bachelor's degree, nurse
Work Experience	: Surgical operation Roi-ET Hospital
Position	: Nurse