

ความผูกพันเชิงลึกซึ้งและความรู้ ทักษะ และ การปฏิบัติเกี่ยวกับพฤติกรรมทางเพศในผู้ป่วย  
มะเร็งปากมดลูกที่โรงพยาบาลจุฬาลงกรณ์

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วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาวิทยาศาสตรมหาบัณฑิต

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INTIMACY AND KNOWLEDGE, ATTITUDE, AND PRACTICE ABOUT SEXUAL  
BEHAVIOR AMONG CERVICAL CANCER PATIENTS AT KING CHULALONGKORN  
MEMORIAL HOSPITAL

Miss Muandao Kongwanarat

A Thesis Submitted in Partial Fulfillment of the Requirements  
for the Degree of Master of Science Program in Mental Health

Department of Psychiatry

Faculty of Medicine

Chulalongkorn University

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# # 5374679030 : MAJOR MENTAL HEALTH

KEYWORDS : CERVICAL CANCER/ INTIMACY/ KAP/ SEXUAL BEHAVIOR

MUANDAO KONGWANARAT: INTIMACY AND KNOWLEDGE, ATTITUDE, AND PRACTICE ABOUT SEXUAL BEHAVIOR AMONG CERVICAL CANCER PATIENTS AT KING CHULALONGKORN MEMORIAL HOSPITAL. ADVISOR: PROF. NUNTIKA THAVICHACHART, M.D.,96 pp.

The objective of this study was to study intimacy, and knowledge, attitude, and practice about sexual behavior among cervical cancer patients in Thailand. This was a cross-sectional descriptive study. One hundred cervical cancer patients who were receiving treatment or were within 3 months post treatment were asked to complete intimacy and KAP questionnaires.

Among the sample 24% scored low, 56% scored medium, and 20% scored high on intimacy. For knowledge, 32% scored low, 46% scored medium and 22% scored high. In terms of attitude, 29% scored low, 49% scored medium, and 22% scored high. For practice, 29% scored low, 55% scored medium, and 16% scored high. Factors correlated with high intimacy were high knowledge, attitude, and practice scores, young age (<55 years old), high education and high income ( $\geq 30,000$  baht) ( $p < 0.05$ ). Factor correlated with low intimacy was ongoing treatment ( $p < 0.05$ ). Factor correlated with high knowledge was having completed treatment ( $p < 0.05$ ). Factor correlated with low practice score was low education. Predictor for intimacy included low education level with predictive value of 14.9,  $p < 0.01$ . Predictor for practice included low education level with predictive value of 7.5,  $p < 0.01$ .

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เกี่ยวกับพฤติกรรมทางเพศในผู้ป่วยมะเร็งปากมดลูกที่โรงพยาบาลจุฬาลงกรณ์

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งานวิจัยเชิงพรรณนา ณ จุดเวลาใดเวลาหนึ่ง มีวัตถุประสงค์เพื่อศึกษาความผูกพันเชิง  
ลึกซึ้ง และ ความรู้ ทักษะ และ การปฏิบัติ เกี่ยวกับพฤติกรรมทางเพศของผู้ป่วยมะเร็งปากมดลูก  
ที่โรงพยาบาลจุฬาลงกรณ์ โดยเก็บข้อมูลโดยการให้ผู้ป่วยมะเร็งปากมดลูก 100 คน ที่กำลังได้รับ  
การรักษา หรือการรักษาเสร็จสิ้นไปแล้วไม่เกิน 3 เดือน ตอบแบบสอบถาม

ผลงานวิจัยพบว่าในแบบทดสอบความผูกพันเชิงลึกซึ้ง กลุ่มตัวอย่าง 24% ได้คะแนนต่ำ  
56% ได้คะแนนปานกลาง และ 20% ได้คะแนนสูง สำหรับแบบทดสอบความรู้ 32% ได้คะแนนต่ำ  
46% ได้คะแนนปานกลาง 22% ได้คะแนนสูง สำหรับแบบทดสอบทัศนคติ 29% ได้คะแนนต่ำ  
49% ได้คะแนนปานกลาง 22% ได้คะแนนสูง สำหรับแบบทดสอบการปฏิบัติ 29% ได้คะแนนต่ำ  
55% ได้คะแนนปานกลาง 16% ได้คะแนนสูง ปัจจัยที่มีความสัมพันธ์กับความผูกพันเชิงลึกซึ้งที่สูง  
คือ คะแนนความรู้ ทักษะ และ การปฏิบัติที่สูง อายุ < 55 ปี การศึกษาและรายได้สูง ปัจจัยที่  
มีความสัมพันธ์กับความผูกพันเชิงลึกซึ้งที่ต่ำคือ การบำบัดรักษาที่ยังดำเนินอยู่ ( $p < 0.05$ ) ปัจจัยที่  
มีความสัมพันธ์กับคะแนนความรู้ในระดับสูงคือการรักษาที่เสร็จสิ้นแล้ว ( $p < 0.05$ ) ปัจจัยที่มี  
ความสัมพันธ์กับคะแนนปฏิบัติต่ำคือระดับการศึกษาต่ำ ปัจจัยทำนายของความผูกพันเชิงลึกซึ้ง  
คือระดับการศึกษาต่ำ ( $R^2 = 14.9, p < 0.01$ ) ปัจจัยทำนายของคะแนนปฏิบัติคือระดับการศึกษา  
ต่ำ ( $R^2 = 7.5, p < 0.01$ )

ภาควิชา : จิตเวชศาสตร์

สาขาวิชา: สุขภาพจิต

ปีการศึกษา 2554

ลายมือชื่อนิติ.....

ลายมือชื่อ อ.ที่ปรึกษาวิทยานิพนธ์หลัก.....

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## CHAPTER I

### INTRODUCTION

#### **Background and Significance of the problem**

Cervical cancer is a major health issue worldwide with approximately 500,000 new cases diagnosed each year (1). In Thailand, cervical cancer is the second most common type of cancer found in women (2). It accounts for 14.4% of women who are diagnosed with all types of cancer in Thailand (3). According to the American Cancer Society, a dramatic improvement in cancer survival has been observed over the last 25 years. This is partly attributable to better treatment and earlier diagnosis of asymptomatic cancer. It is estimated that about three fourth of a million women will be diagnosed with cancer and about two thirds of these will survive (4). For cervical cancer, its survivors make up almost 35% of all gynecological cancer survivors (5). As survival rates increase, researchers are paying more attention to quality-of-life issues in cancer patients and their caregivers (6).

Cancer and its treatment can significantly affect the quality of life of people with cancer and their family members especially their intimate partners (7, 8). Two of the important aspects of quality of life are sexuality and intimacy (9) and a growing body of evidence suggests that cancer can dramatically alter sexuality and relationships of cancer patients and their partners (10). Such alterations can result in emotional distance between the couples (11), as well as feeling of isolation, anxiety, and depression (12). Conversely, some researchers have found that sexual intimacy has an influence in terms of making the experience of cancer more manageable and assist in the recovery process (10) or that it is important for couple closeness and quality of life in palliative care (10). Given that cervical cancer patients, compared to women with other types of cancer such as endometrial cancer, have a more pronounced psychological

reaction with higher level of depression (14), intimacy and relationships factor may be important when psychosocial intervention is being considered.

Several key attributes of intimacy may be relevant in couples coping with cancer. Serious medical condition can remind the couples of the potential for death or loss. In response to the terrifying feeling, the couples may react either by pulling away from each other or clinging to each other. Both partners, who are the caregiver and the receiver of care and are witnessing the signs of illness and experiencing emotion strains, may try to distance from one another if their relationship became associated with loss (10). In the discussion of chronic illness, Rolland (13) points out that serious psychosocial strain on primary relationships are unavoidable over time. The conceptual framework for couples' function requires the incorporation of the impact and demand of chronic illness on patterns of intimacy and communication. In order to adjust or cope with chronic illness adaptively, couples need to be willing to address the basic issues concerning the illness and accept the fact and reality relating to the illness. This means that they must revise their intimacy to include, rather than avoid, the issue of disability and the possibility of loss (14-16).

At the present, there is a limited body of literature on the psychosocial issue of intimacy in patients coping with cervical cancer. Most of the existing research focuses on the issue of constrain that lack of sexuality pose on intimacy and marital relationship after cancer treatment in couples coping with breast cancer. What is more, despite the prevalence and documented cervical cancer cases, there is no existing literature on intimacy and sexuality in cervical cancer patient in Thailand. There is a need for research to study this particular domain of quality of life. Therefore, the aim of this research is to study intimacy, as well as attitude, knowledge and practice on sexual behavior, in Thai cervical cancer patients. The result obtained from this study may be utilized to help patients and their partners adjust to diagnosis and treatment of cervical cancer and to improve their quality of life.

## **Objectives**

1.To study about intimacy and knowledge, attitude, and practice about sexual behavior among cervical cancer patients who were undergoing treatment at King Chulalongkorn Memorial Hospital.

2. To determine the factors correlated with intimacy, and knowledge, attitude, and practice about sexual behavior.

3. To determine the correlation between intimacy and knowledge, attitude, and practice about sexual behavior.

## **Research questions**

1.What are intimacy and knowledge, attitude, and practice about sexual behavior among cervical cancer patients who are undergoing treatment at King Chulalongkorn Memorial Hospital.

2.What are the factors associated with intimacy and knowledge, attitude and practice about sexual behavior.

3. what is the correlation between intimacy and knowledge, attitude, and practice about sexual behavior.

## **Assumption**

This research was conducted to study intimacy and knowledge, attitude, and practice about sexual behavior only among cervical cancer patients who were undergoing treatment at King Chulalongkorn Memorial Hospital.

## Limitation

This research was done in patients at King Chulalongkorn Memorial Hospital. The sample was not a representative of the whole population in Thailand. The result of this study cannot be generalized to other population other than cervical cancer patients at King Chulalongkorn Memorial Hospital.

## Operational definition

**Cervical cancer** is disorder of cell growth which involves unrestrained, indiscriminate, and chaotic, cell production (15) at the cervix. The diagnosis is confirmed after histology or cytology results by pathologists (17).

**Intimacy** is “the feeling of closeness that results from a transactional, dynamic process between partners’ self-disclosure and responsiveness” (Marshall, 2008: 144). It includes factors relating to closeness, disclosure, activity sharing, sexuality, and affection (18) and is measurable by intimacy questionnaire (19)

**KAP** model measures knowledge, attitude, and practice of a population of interest. Knowledge refers to the understanding of a given topic. Attitude refers to the feeling or preconceived idea about a given topic. Finally, practice refers to the way in which knowledge and attitude is demonstrated through action (20).

**Sexual behavior** is “any act leading to sexual reward. Sexual reward is a state of positive affect activated by physical stimulation of the genitalia or mental representations of such stimulation” (13)

## Benefits

1..A better understanding of how intimacy may be affected by diagnosis and treatment of cancer might be relevant in improving spousal relationships and sustaining intimacy of the patients and their partners.

2. The result of this study may be significant when psychosocial

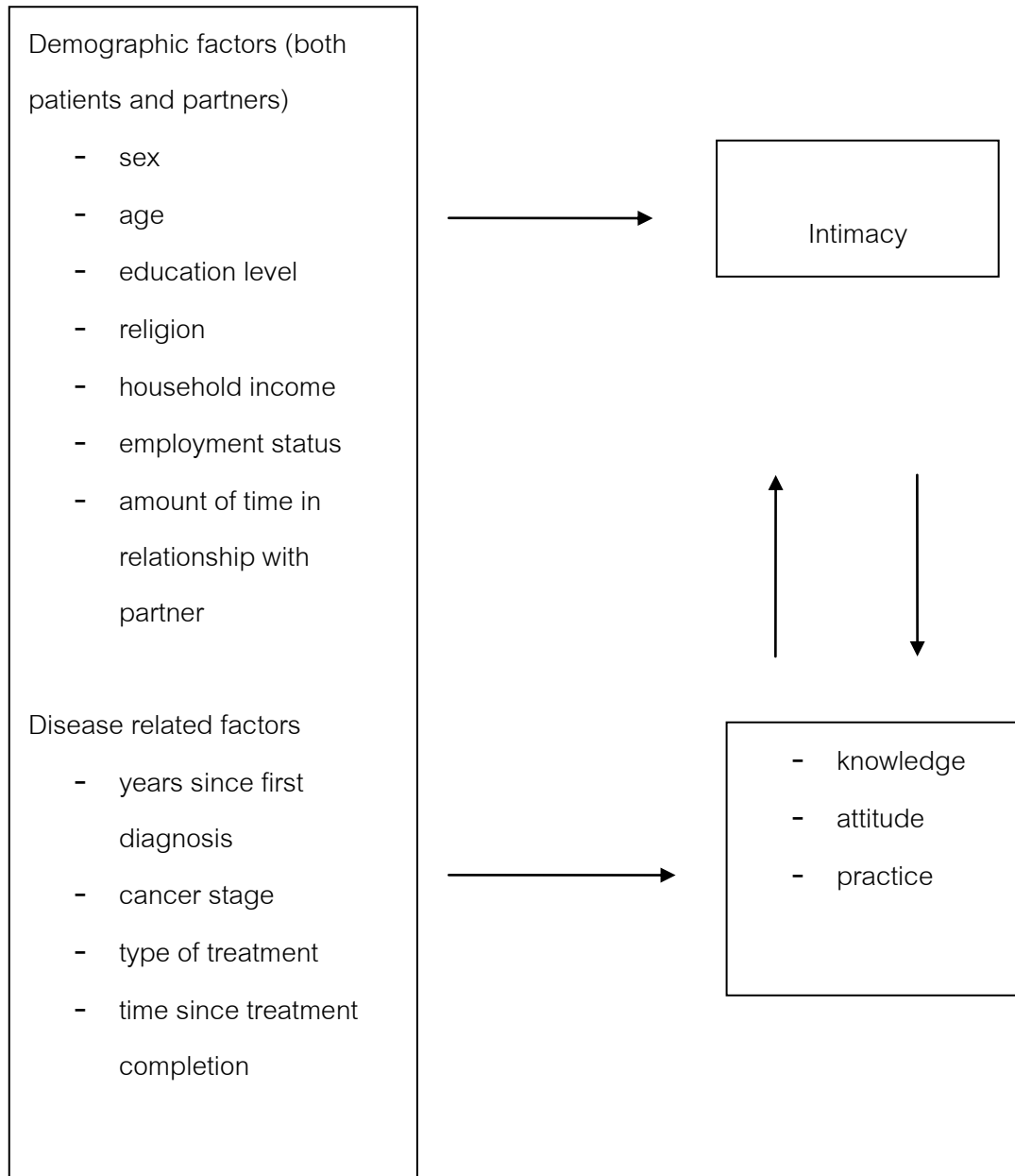
intervention for patients coping with cervical cancer is being considered. It can be considered and integrated into treatment plan by healthcare professionals in order to improve the quality of life of cervical cancer patients and their partners.

3. Establishes new finding and pave way for further research in this area.

### **Research Hypothesis**

none

## Conceptual framework





## CHAPTER II

### LITERATURE REVIEW

#### Concept and Theory

##### **Cervical cancer**

Cancer is a term given to a condition marked by disorders of cell growth which involve unrestrained, indiscriminate, and chaotic cell production. Surrounding tissues are invaded and destroyed by these mutated cell masses. Moreover, these mutated cell masses can potentially metastasize or spread through the blood or lymphatic system to induce new cancers in other parts of the body (2). Anorexia, fever, fatigue, and pain are common symptoms associated with metastatic disease (13).

The cervix is the lower part of the uterus which connects the body of the uterus to the vagina. Cancer of the cervix or cervical cancer begins in the lining of the cervix. This type of cancer forms slowly, starting with some cells changing from normal to pre-cancer and then to cancer. This slow process of changes is called dysplasia. They can be detected by the Pap test and may need to be treated in order to prevent cancer. There are two main types of cervical cancer. About 80% to 90% are squamous cell carcinomas. Microscopically, this type of cancer consists of squamous-like cells that cover the surface of the cervix. Nearly all of the rest are adenocarcinomas. These cancers start at the gland cell that makes mucus. Sometimes, the cancer has features of both types and is called mixed carcinoma (13, 21).

After cancer diagnosis is confirmed by histology or cytology results, its stage is determined. Such classification of cancer will facilitate treatment selection and allow for the estimate of prognosis survival (1). TNM system is the most commonly used nomenclature that classify cancers according to the size of the primary tumors (T), the extent that the disease is involved in the lymph nodes (N), or distant metastases (22).

##### **Stages of cervical cancer (22)**

The following are stages used for cervical cancer.

1. **Carcinoma in Situ (stage 0)** In this stage, abnormal cells are found in the innermost lining of the cervix. These abnormal cells may turn into cancer or spread to nearby tissues.

2. **Stage I** In stage I, cancer is found only in the cervix. Stage I is divided into stage IA and IB depending on the amount of cancer found.

2.1 Stage IA: A very small amount of cancer could be seen through microscope in the cervix tissue.

2.1.1 In stage IA1, the cancer is not more than 3 millimeters deep and not more than 7 millimeters wide.

2.1.2 In stage IA2, the cancer is more than 3 but less than 5 millimeters deep and not more than 7 millimeters wide.

2.2 Stage IB

2.2.1 In stage IB1, the cancer can only be seen with a microscope and is more than 5 millimeters deep and 7 millimeters wide OR the cancer cannot be seen with a microscope and is 4 centimeters or smaller.

2.2.2 In stage IB2, the cancer cannot be seen through a microscope and is more than 4 centimeters.

3. **Stage II:** In this stage, the cancer has spread beyond the cervix but not the wall of the pelvic and the lower third of the vagina

3.1 Stage IIA, cancer has spread beyond the cervix to the upper two third of the vagina but not the tissue around the uterus.

3.1.1 In stage IIA1, the tumor can be seen without a microscope and is 4 centimeters or less

3.1.2 In stage IIA2, the tumor can be seen without a microscope and is bigger than 4 centimeters

3.2 Stage IIB, cancer has spread beyond the cervix to tissues around the uterus.

**4. Stage III:** Cancer has spread to the lower third part of the vagina, and/or the wall of the pelvis, and/or has caused kidney problems.

4.1 Stage IIIA, cancer has spread to the lower third of the vagina but not the wall of the cervix.

4.2 Stage IIIB, cancer has spread to the wall of the cervix and/or the tumor has become large enough to cause blockage to the ureters.

**5. Stage IV:** Cancer has spread to the bladder, rectum, or other parts of the body.

5.1 Stage IVA, cancer has spread to nearby organs such as rectum and bladder

5.2 Stage IVB, cancer has spread to other parts of the body such as liver, lungs, bones, or distant lymph nodes.

#### **Treatments of cancer**

There are four primary forms of cancer treatments: surgery, radiation therapy, medical oncology and immunotherapy. These treatments are used in isolation and in combination with each other. Treatments are used with a purpose to cure, increase survival time, and alleviate symptoms of advanced stage disease (23). As in breast cancer and gynecological cancer, treatment for cervical cancer involves the same therapies as the formers though they focus on the pelvic region, specifically the cervix. The options of these therapies depend on the medical circumstances and the patient's preferences. Surgery for cervical cancer involves the removal of the cervix and in some cases; it may involve the removal of lymph nodes from the groin area. The most extensive treatment is a total pelvic exenteration and it is usually used to treat recurrent or advanced stage cervical cancer. Note that pelvic exenteration is a process which involves the removal of the bladder, urethra, vagina, colon, rectum, uterus, ovaries, and cervix. New vagina is surgically crafted and two openings for the bladder and colon are constructed during the operation (24-26).

### **Theories of Intimacy**

There is a lack of consistency in the operational definition of the term intimacy (27, 28). Some psychological literature conceptualizes intimacy as resulting from self-disclosure, the revelation of personal thoughts, feelings, and experiences to another person (29, 30). Others, on the other hand, argue that verbal and/or non verbal responsiveness which is expressed through behaviors that convey empathy, support, and affection to one's partner (31) is at least as important as intimacy's component of self-disclosure (32). Similarly, Wynne and Wynne (33) consider intimacy as a set or processes through which partners express themselves, verbally and non-verbally, trusting that one's partner will be understanding and will not betray trust. Still others emphasize the temporal (34), motivational (14), and transactional aspects of intimacy (14-16). In an integrative view of these heterogeneous conceptualizations, the interpersonal process model of intimacy (35) proposes that intimacy is "the feeling of closeness that result from a transactional, dynamic process between partners' self-disclosure and responsiveness" (36). That is, when one perceives that one's partner responds to one's personally relevant disclosure with concern and support, one may feel understood, validated, or cared for and thus more intimate with the partner. The definition of intimacy conventionally includes factors relating to closeness, disclosure, activity sharing, sexuality, and affection (e.g. holding hands, kissing, and verbal affection)(37).

### **Cervical Cancer's effect on quality of life and sexual functioning**

The diagnosis and treatment of cancer may result in burden in daily life, disrupting many aspects of the survivor's life such as medical, physical, psychological, social, functional and sexual disruption (37). In fact, women with cervical cancer have decreased quality of life (38).

Sexual and reproductive issues are an integral but somewhat neglected components of quality of life, especially for cervical cancer patients (39). If sexual

functioning is adversely altered, emotional disturbance and marital disharmony may result (40). In cancer patients, the diagnosis, treatment, recurrence, related side effect of cancer and the psychosocial burden of living with cancer can threaten sexuality related issues (40). Several studies were conducted to explore the effect of diagnosis and treatment of cancer on sexuality and intimacy. Treatments of cancer which involve the removal of reproductive organs may induce certain physiological and psychological effects. Pelvic exenteration, for instance, can effect sexual functioning. Removing the uterus, an integral part of sexual respond, may affect sexual pleasure. Vaginal lubrication may be affected by oophorectomy which decreases oestrogen level. These effects may be less pronounced in women who have already reached menopause and were possibly experiencing alterations in sexual responds (41).

The psychosexual functioning of cervical cancer patients are affected differently by the different stages of cervical cancer. For patients in the early stage receiving hysterectomy and radiotherapy, problems may include short-term dyspareunia, problems during intercourse and lack of sexual satisfaction. Other persistent sexual difficulties include lack of sexual interest and lack of lubrication. Patients in the advanced, recurrent, or persistent cervical cancer may experience reduced sexual interest as well as long-term problem with vaginal lubrication, inability to have orgasm, and lower frequency of intercourse (41). One longitudinal study done in women with cervical cancer after radiotherapy found that 85% had low or no sexual interest, 35% had moderately or severely lack of lubrication, 55% had mild to severe dyspareunia, and 30% were not satisfied with their sex life (37).

Different kind of treatments is also associated with specific side effects. For instance, the side-effects of chemotherapy (e.g. fatigue, weigh changes, alopecia) may affect the ability and desire to engage in sexual activities. Radiotherapy may cause persistent sexual dysfunction which includes vaginal atrophy, vaginal stenosis, vaginal shortening, and loss elasticity of the vaginal tissue (7, 37, 40).

Several researchers have identified body image issue as one of the important issues sometimes overlooked in gynecological cancer patients (42). There is a

symbolic importance associated with the cervix and the uterus. These two organs represent womanhood, femininity, and fertility. Women who believe that childbearing is an important expression of femininity may report lower self esteem, poorer body image and lesser subjective sense of femaleness due to the loss of organs that represent reproduction or femininity (10). Poor body image in female cancer survivors may affect mental health and sexual functioning (43). Mastectomy, for instance, could raise anxiety about attractiveness and result in the decrease in sexual feelings in both patients and their partners (44).

In addition sexual functioning may be effected by mood. One study has found that, among patients with cancer, the main psychological cause of decreased libido is clinical depression but it is usually left undiagnosed and untreated (45). In fact, for patients with cervical cancer, research indicates that, compared to women with other types of cancer such as endometrial cancer, women with cervical cancer have a more pronounced psychological reaction with higher level of depression, suggesting the need for psychosocial intervention (46). Other psychological factors that may interfere with sexual functioning include frustration, stigma and embarrassment, anger and irritability, anxiety, loneliness, sadness, despair, grief resulting from cancer related loss, misinformation, guilt, shame, disappointment, and fear (45). The fear of death and rejection as well as a sense of loss of control can affect libido and the ability to enjoy sex (47). Note that feeling such as feeling alone, poorly understood, and guilty are particularly common in women with gynecological cancer (48).

Finally, cancer treatment can interfere with the women's ability to reach age appropriate developmental goals such as obtaining education, getting married and having children, and building up a career (49). The women may have to stop working which consequentially may affect self esteem and lead to the state of financial difficulties for these women and their families.

Partners of women with cancer experience alteration in sexual functioning as well. Hawkins (8, 50, 51) found that, there was a decrease in the frequency of sex or a complete cessation of sexual activities in informal carers who were

the partner of a person with cancer. This change in sexuality and intimacy was noted in partners caring for cancer patients affecting reproductive parts of the body as well as those with cancer affecting the non-reproductive parts of the body.

Studies of sexual functioning after the treatment of cervical cancer indicate that there is a potential for spousal relationship problem. For instance, Jensen et al. (7, 8, 40) found that, radical hysterectomy caused dyspareunia, sexual dissatisfaction, and orgasmic problems in the short-term. In the long run, it caused reduced sexual desire and problems with vaginal lubrication. Reported disruptions among intimate partners of cancer patients include fear of initiating sex with cancer patient, difficulties in maintaining a level of "normality" within the realm of sexual relationship, decrease sex drive, and feeling a sense of being unwanted or unattractive after the cessation of sex (8). Various studies have stressed about the important of communication within the sexual relationship of gynecological cancer patients and their partner (7). Men may hesitate to initiate sexual activities with their partner due to fear of pain. They instead wait for their partner to initiate it (52). But because of the lack of communication, this is often misinterpreted as disinterest or rejection by their partner (53)

Overall, it must be acknowledged that a good sexual relationship following the treatment is likely to exist if the women experienced a healthy sexual relationship prior the illness (54).

## **Relevant research**

### **Intimacy**

In the fight against cancer, cancer survivors in committed relationship who adjust well to diagnosis and treatment of cancer say that they do not do it alone but their partners are the greatest allies (22). In fact, a study done in breast cancer patients found that patients often identify the most important person from whom they seek support as their partners or husbands (55). What appeared to be the most important

were the patients' perceptions that there are availability of comfort, concern, positive regard, affection, and help with problems from their closed ones (55).

Blanchard et al. (56) have identified three types of social support which are emotional, informational, and practical support. Emotional support is the most relevant in the discussion of intimacy. It is the support that is conveyed through communication and is related to patients' perceptions of their partners' acceptance, esteem (22), concern, affection and caring, willingness to listen to worries, and discuss important issues (57). Emotional support encourages the expression of feelings that may reduce distress and promote improvement in interpersonal relationship (58). Similarly, emotional support provided by cancer patients to their partners plays a critical role in their partners' adjustment. For husbands of breast cancer patients, a significant predictor of emotional and physical adjustments was marital support (59). Indeed, following cancer diagnosis and treatment, difficulties in relationships may arise if couples do not share the same need for intimacy and do not communicate feelings (59).

Spouses experience similar amount of emotional distress as the patients. DeGroot et al. (60) found that, in terms of psychosocial impact of cancer, women with cervical cancer and their male partners expressed equal intensity of concern regarding illness and its treatment. They rated sexuality, prognosis, and communication with treatment team as issues that they are most concerned about. Furthermore, even though women with cervical cancer experience more fatigue and illness intrusiveness than their male partners, both reported that relationships, intimacy, and instrumental life domains were disrupted. Finally, both reported the greatest disruption in the area of intimacy, jointly defined as sex life and spousal relationship (61).

Although no study has been conducted in this area, there is a proposition that sexual functioning issue may be a site where problems with intimacy function to worsen the relationship between the couples. For example, the feeling of discomfort in discussing sexual functioning may lead the partner to avoid the topic due to the fear that the patient may interpret it as sexual frustration. In the short term, such avoidance may decrease distress relating to unwanted conversation or those resulting



from arguments. In the long run, however, avoidance can exacerbate relationship conflict and maintain sexual dysfunction.

Furthermore, non-sexual intimacy often decreases in couples whose sexual relations decrease or discontinue (62). Researchers argue that when sexual intercourse discontinues as a result of illness, other form of physical contact and touching likewise diminishes (10) due to the existing perceptions among some couples that these forms of affection will eventually lead to sexual intercourse which is either not possible or deemed inappropriate (49).

Sensitive, open, direct communication about variety of issues is essential for couples to live well with chronic illness (63). Marital strains and intimacy problems can readily arise from misunderstanding and lack of communication between women with gynecological cancer and their partners. This is illustrated by the following case. The wife failed to fully absorb the cancer diagnosis because she did not anticipate that she will be diagnosed with a serious illness. She thus, failed to inform her husband immediately about her diagnosis. Her husband, in turn, interpreted this lack of immediate communication as a sign of exclusion and that she prefer to rely on others instead of him. Schover & Jensen (64) pointed out that communication about sexual life may be important when couples are facing illness that disrupts sexual routine. This is because this kind of communication is likely to worsen when made complicated by illness (10). For couples who are not used to communicating about sexual life, help may be needed in learning to communication emotions, preferences, and limitations. Those who communicate or express feelings of intimacy through sexuality, the illness of the partner could create serious problem (65).

All in all, emotional distance between the couples (66) and dissatisfaction in relationships may arise as a result of the lack of communication and intimacy and this can add burden to the women and their family, making coping with gynecological cancer and the effect of treatment more difficult (67).

It must be noted that the diagnosis of gynecological cancer may also bring positive impact to couple's relationship. A Canadian study reported that women

with ovarian cancer and their partners said that the diagnosis and treatment strengthen their relationships (63, 68). Similarly, some couples coping with cancer reported that, despite the decrease in sexual intercourse, there were other forms of affection such as kissing and cuddling that keep the couple “very close” or even more affectionate than the time prior to the diagnosis of cancer (63, 69).

### **Knowledge**

Studies show that misunderstanding and the lack of knowledge concerning sexual issues exist in women with gynecological cancer (38, 63). Such lack of knowledge causes concern, distress, or fear in some women. One theme that dominates the narrative of these women is the concern and fear about the safety of sexual activity. There is the fear that sexual intercourse may result in damage, recurrence of cancer (63), or the transmission of cancer to their partners (47). Others believe that sexual intercourse would deplete the “energy” that could be used by the body to “cure” cancer (68, 70, 71). In other study, misinformation on part of male partners leads to the fear that the women will be hurt or feel painful during intercourse (72). It was found in various studies that cervical cancer patients who were either receiving treatment or have completed their treatment felt that they needed more information about the consequence of treatment on sexuality (40). In fact, some women express the desire for healthcare professional to discuss with them alternative ways of non-intercourse expression of intimacy (40).

The lack of knowledge also has the potential to disrupt couple’s relationship by becoming the barrier to communication and sexual activities. Study has shown that some women expressed concern about the loss of their sexual desire. They did not understand why their desire changed. This has resulted in poor communication between the couple about changes related to sexual issues. Women felt that it would be easier to discuss such changes in feeling with their partners had the explanation of why sexual desire may decrease been provided by medical staffs (38, 40). The lack of knowledge was also evident in issues of sexual sensation or feelings. One woman in

particular thought that the removal of her ovaries would result in the inability to have sexual feelings when she has sexual intercourse (41, 73-75). Moreover, as women were unsure about the safety of sexual activity, some have completely avoided having sex with their partner and this has in turn produced concern about maintaining relationships and feeling of guilt (38, 39, 63, 76-78).

These studies correspond to the finding that openness and communication about sexual issues between patients and medical staffs was often lacking. Despite the findings that women with gynecological cancer experience difficulties with sexual functioning (79), more recent research indicates that communication about sexual issues are still being ignored in the communication between medical professionals and patients (74). Thaler-Demers (79) mentions that the sexual, interpersonal, and reproductive late effects of treatment are often not addressed adequately or not addressed at all in clinical setting. Healthcare professionals rarely discuss matters or questions relating to sexual matters with gynecological cancer patients. The majority of cancer patients, on the contrary, reported sexual issues to be priority (40), and a sizable number of individuals express willingness to discuss sexual concern with healthcare providers (40). They wished that hospital staffs had provided information concerning sexual issues and emotional support which would have reduced their stress and helped them deal with their difficulties more effectively (7).

### **Attitude**

In terms of attitude toward sexual behavior, research has found that, for many women who were diagnosed and being treated with gynecological cancer, sex was thought to be important and many want to enjoy sexual activities. Women expressed concern, if they were sexually active but did not want to be active and if they were sexually inactive but wanted to be active. Some women were scared to have sex. They felt that they should not resume sexual activities because they were unsure if sexual intercourse would have any effect on their body (40). Nevertheless some women put their fear and concern aside. For them, sexual activity was seen as a duty and if they

could not perform this duty, they argued that their partners should be allowed to seek sexual satisfaction from other sources (80). They felt that sexual activity should continue in order to maintain the relationship with their partners and that it would be unfair for their partner if sexual activity completely stopped (81).

Another study in cancer patients found that the attitude of patients toward intimacy and sexuality can be located in different themes along a reflexive continuum. The less reflexive continuum was the “survival is more important than my sexuality” theme. The smallest number of patient responds was located in this theme. Patients in this theme spoke about managing life without sexual intercourse, how they just get on with life and feeling lucky to be alive and feeling grateful for the treatment they have received. Another theme of the less reflexive patient responses was the “trust in the expert” theme. Again, a small number of patients were located here. Patients of this theme accepted the medicalised, “traditional expert” approach of healthcare professionals who only spoke of fertility, contraception, menopause, and erectile status as the impact that cancer may have on sexuality. They believed that their doctor would have talked about sexuality issues with them if it was an important concern. The next theme was the moderately reflexive “search for options” theme. Patients in this theme searched for the “right” person who they could communicate with about sexual and intimate issues that they were experiencing. This often meant talking to a particular healthcare professional they trusted in a non-medicalised way in order to sensitively deal with the issues. In a highly reflexive theme, “am I normal”, a large number of patients were actively seeking to discuss cancer related physical and emotional changes that were having an impact on their sexuality and intimacy in order to determine if their experiences were normal. Many patients in this theme felt angry and let down by healthcare professionals who could not provide them with the information, support, or strategies they searched for in order to deal with the impact of cancer diagnosis and treatment. At the far end of the continuum was the highly reflexive “negotiated communication” theme. Patients in this theme saw themselves as participants in their own treatment. They made demands on healthcare professionals to

make a partnership with them in the treatment process. For them, relationship, intimacy, and sexuality were the most important thing and they made demands on healthcare professionals to assist them beyond the focus on staying alive but to live with the changes they were experiencing (82).

Partners of cancer patients may experience changes in attitude as well. For example, partners who provide very intimate physical care such as helping with feeding and toileting for the person with cancer may start to see them as a “patient” or “asexual” rather than sexual partner (7, 39-41, 48, 62, 63, 75). Furthermore, some research reported that partner carers subordinated their own sexual needs because they saw this as a “proper” thing to do when in caring role and this included not initiating sex, not pressuring their partners into have sexual intercourse, and not being demanding sexually (48). This discursive construction of “good carer”, thus, problematises the renegotiation of sexuality and intimacy between the couples.

#### **Practice on sexual behavior**

Various researches suggested that sexual behaviors of cancer patients changed after diagnosis (8). Two major themes characterized the change: cessation or decreased frequency of sex or intimacy and renegotiation of sex or intimacy (63). Furthermore, there were reports of difficulties in resuming the level of “normality” in the realm of sexual life for couples who have resumed sexual activities. For instance, other than the decrease in frequency of sexual intercourse, one husband stated that after his wife’s operation for cervical cancer, he now tends to wait for his wife to initiate sexual intercourse rather than initiating it himself (48).

One study reported that 59% of women and 79% of men who were either cancer patients or their partners experienced a complete cessation of sex or remarkable decrease in the frequency of sex. In some couples, there was a cessation of sexual activities after the female partner was diagnosed with cervical cancer because the male partner fear that cancer might be transmitted to them (67).

In terms of renegotiation of sexual and non sexual intimacy, it was reported that 19% of women and 14% of men renegotiated their sexual relationship to include non coital sexual activities or nonsexual intimacy and 12% of men, compared to 1% of women, reported having developed alternative sexual behavior to those practiced before their partners got cancer. These sexual behaviors included the change in position during sexual intercourse and the development of alternative of non penetrative sexual behaviors to create partners' satisfaction such as oral sex, massage, masturbation, and the use of vibrator (7). Couple may have engaged in such behaviors prior to the diagnosis and treatment of cancer but after sexual intercourse involving vaginal penetration became difficult or physiologically impossible, these behaviors became more frequent and more central in their sexual relationship (67). One study revealed that, in women with cervical and endometrial cancer, sexual satisfaction came from sexual activities involving intimate acts other than physical act of sexual intercourse. Even though the women in this study expressed the desire for such non-intercourse intimacy, they felt that this was not enough to satisfy their partners sexually (83-85).

Studies that have examined sexual renegotiation in the context of cancer have shown that couples were, for the most part, unable to renegotiate sexuality and intimacy (61). It was reported that this inability is related to difficulties in communicating about sexual matters (67) due to fear of making the person with cancer feel guilty (48). Positive communication and good relationship context were given as explanations for the ability to renegotiate by partner of cancer patients. Although it was not necessary "easy" for the partners to express sexual related needs and concern to the person with cancer, the "effort" to communicate was described as rewarding for both sexual and couple relationships (86).

The ability of couples to renegotiate sexuality and intimacy after cancer, in a large part, may be influenced by what the broader culture constitute as normative sexuality, especially when sexual intercourse is no longer possible (87). As Judith Butler has argued, we understand our sexual subjectivity within the "heterosexual matrix"

within which masculinity and femininity are performed through the engagement in “coital imperative” which is considered to be normative sexual practices (48). The failure to perform coitus is seen as “dysfunction” and other practices seen as “not real sex” (40). This theoretical framework is useful in understanding why many heterosexual couples who cannot engage in the physical act of sexual intercourse cease all expression of sexual intimacy after the diagnosis and treatment of cancer (70).

Stead et al. (17) reported that women with gynecological cancer were initially not concerned about the issues of sexual activity. At the initial stage after diagnosis, the main concern was on coping with the diagnosis and these women mostly concentrated on the need for treatment and the impact of cancer on their health and their life. Sexual activity was then being considered by the women after the treatment or the wound from surgery has healed. Most women in this study did not have sex during chemotherapy as they had “too much on their mind” to engage in sexual activity. Others engaged in sexual activity during chemotherapy as it helped them maintain normality in their lives and cope with treatment. Therefore, treatment affected the sexual behavior of women with gynecological cancer differently. Some chose to avoid sexual activity completely while others maintained sexual activity as they thought it helped them psychologically.

Currently there is a limited number of research studying sexual issues among cervical cancer patients in Thailand. There is only one study done in Thailand that touches on this subject. Consistent with various studies cited above Tangjitgamol et al. (59) found that sexual dysfunction is a common problem after cervical cancer treatment. It is, however, often not recognized by medical staff and patients, due to cultural background which consider sexual related issues as private.

## CHAPTER III

### METHODOLOGY

#### Research Design

This is a cross-sectional descriptive study.

#### Population and sampling

**Target population** is cervical cancer patients at King Chulalongkorn Memorial Hospital.

**Target sample** is cervical cancer patients who are undergoing cancer treatment or in the stage of follow up at King Chulalongkorn Memorial Hospital.

**Sample** is cervical cancer patients who met the inclusion criteria for the study and undergone cancer treatment at King Chulalongkorn Memorial Hospital around the period of October 2011 to February 2012.

#### Inclusion criteria

1. At least 18 years of age
2. Married
3. Having stage 2 or 3 of cervical cancer and
  - either currently receiving radiation therapy or chemotherapy
  - or in the stage of follow up within 3 months post radiation or chemotherapy

The reason for limiting the stage of cervical cancer to include only stage 2 and stage 3 is because it is usually patients in these stages that will be receiving either radiation therapy or chemotherapy.

4. Thai language proficiency



### Exclusion criteria

1. Was diagnosed with other types of cancer.

### Sample size determination

$$\begin{aligned}
 \text{Formula} \quad n &= \frac{z^2 p (1 - p)}{d^2} \\
 &= \frac{(1.96)^2 (0.5)(1-0.5)}{0.1^2} \\
 &= 96.04
 \end{aligned}$$

$$\begin{aligned}
 \text{Where } n &= 96.04 = \text{sample size} \\
 d &= 0.1 = \text{acceptable error} \\
 z &= 1.96 \text{ at } 95\% \text{ CI} \\
 p &= 0.5 = \text{estimated proportion of attribute}
 \end{aligned}$$

that is present in the population.

The number of research participants needed for this study is 100 people.

### Sampling technique

All the subjects who met the inclusion and exclusion criteria and agreed to participate were included in the study. The researcher approached potential subjects and provided a brief introduction about the research. If they were interested in participating or knowing more about the research, the researcher brought them into one of the examination room at the Permpoon-Vongwanich building. There, the researchers explained about the research and the process of participating and answered questions. Patients were allowed to freely decide whether or not they want to participate in the

research. The study continued until the number of research subjects reached the number of calculated sample size.

## Instruments

**Part 1** A self-report questionnaire developed by the researcher was used to obtain information on different factors that may be related to intimacy. Demographic factors included, sex, age, education level, religion, monthly income, employment status, number of children, and time in relationship with partner. Clinical factor included number of years since first diagnosis, current cancer stage, type of treatment, time since treatment completion, and satisfaction with healthcare. Social support factors included emotional support from partner or closed ones

**Part 2** The questionnaire assessing intimacy was an 11-item 5-points self report scale (63). This questionnaire was used in a research studying sexual dysfunction at Deakin University in Australia. The researchers involved in conducting this study were contacted via email and the permission to use this questionnaire was granted. The translation from English into Thai was done by the researcher. The Cronbach's alpha for the 11 items was 0.741. The language validation was done by 3 experts. The content validity index was 0.6. There were 6 positive items which were items 1,2,3,5,6,9 and 5 negative items which were items 4,7,8,10,11

	Positive	Negative
Never	0	4
Occasionally	1	3
Frequently	2	2
Almost always	3	1
Always	4	0

Greater level of intimacy is associated with higher scores.

The cut-off scores was defined by calculation of percentile

scores > 75<sup>th</sup> percentile were used to classify high level of intimacy. This

corresponded to intimacy score of more than 32.

scores from 25<sup>th</sup>-75<sup>th</sup> percentile were used to classify medium level of intimacy. This corresponded to intimacy score from 25 to 32.

scores < 25<sup>th</sup> were used to classify low level of intimacy. This corresponded to intimacy score of less than 25.

**Part 3** The KAP questionnaire was developed by the researcher to assess the knowledge, attitude, and practice on sexual behavior among cervical cancer patients. The validity of the questionnaires was done by 3 experts.

Knowledge: 8 yes or no questions were designed to assess a general knowledge that the patients have about cervical cancer. The items were constructed after the review of literature about the common misconceptions and concerns that cancer patients have, for instance, the concern that cancer is contagious through sexual contact (50, 88) or that sexual activities will interfere with the ability to recover from cancer (89). Others items were constructed to assess the patients' awareness that male partners or husbands of women with gynecological cancer frequently experience sexual problems (7, 59) and that intervention or counseling can at least achieve short term improvement in physical and overall quality of life among cervical cancer survivors (76). The Cronbach's alpha for the 8 items was 0.712. The content validity index was 0.7. There were 3 positive items which were items 5,6,8  
There were 5 negative items which were items 1,2,3,4,7

	Positive	Negative
True	1	0
False	0	1

Higher level of knowledge is associated with higher scores.

The cut-off scores were defined by calculation of percentile

scores > 75<sup>th</sup> percentile were used to classify high level of knowledge. This corresponded to knowledge scores of more than 6.

scores from 25<sup>th</sup>-75<sup>th</sup> percentile were used to classify medium level of knowledge. This corresponded to knowledge scores from 2 to 6.

scores < 25<sup>th</sup> were used to classify low level of knowledge. This corresponded to knowledge score of less than 2.

Attitude: 12-items rating scale was designed to assess the attitude of patients toward cervical cancer. Targeted areas of concern relating to the effect of diagnosis and treatment of gynecological cancer were identified from literature review. These included relationship (59, 76) and communication with partners or husbands(60), communication with the medical team (59, 90), sexual problems and alteration in sexual behaviors (60), emotional distress including discomfort and fear associated with sexual activities (90). The Cronbach's alpha for the 12 items was 0.50. The content validity index was 0.7. There were 4 positive items which were items 3,5,7,10 and 8 negative items which were items 1,2,4,6,8,9,11,12

	Positive	Negative
Strongly agree	5	1
Agree	4	2
Not sure	3	3
Disagree	2	4
Strongly disagree	1	5

Higher scores are associated with a more positive attitude.

scores > 75<sup>th</sup> percentile were used to classify positive attitude. This corresponded to attitude scores of more than 42.

scores from 25<sup>th</sup>-75<sup>th</sup> percentile were used to classify neutral attitude. This corresponded to attitude scores from 35 to 42.

scores < 25<sup>th</sup> were used to classify negative attitude. This corresponded to attitude scores of less than 35.

Practice: 5 self-report questions were designed to assess the sexual behavior of cervical cancer patients. The followings were alterations in sexuality related issues among gynecological cancer patients identified from literature review that were used to construct the practice questionnaire: cessation or decrease frequency of sex (67), abstinence and inability to engage in sexual intercourse either due to physical condition or emotional distress (63), exploration of alternative sexual practice(60), refusal on part of oneself or one's partner/husband to engage in sexual intercourse (41), and discussion about sexuality related issues with partners/husbands (68). The Cronbach's alpha for the 5 items was 0.540. The content validity index was 0.9. There were 3 positive items which were items 1,2,5 and 2 negative items which were items 3 and 4.

	Positive	Negative
yes	1	0
no	0	1

scores > 75<sup>th</sup> percentile were used to classify high practice score. This corresponded to practice scores of more than 3.

scores from 25<sup>th</sup>-75<sup>th</sup> percentile were used to classify medium practice score. This corresponded to practice scores from 1 to 3

scores < 25<sup>th</sup> will were used to classify low practice score. This corresponded to practice scores of less than 1.

### Data collection

1.The researcher contacted the faculty of Medicines, Chulalongkorn Univeristy for a letter requesting the permission to conduct a research to be sent to King Chulalongkorn Memorial Hospital.

2. The researcher asked the permission from nurses at the division of radiation oncology and chemotherapy clinic (Permpoon-Vongwanich building, King Chulalongkorn Memorial Hospital) to see the patients' appointments and profiles

3. Potential participants were approached by the researcher during their clinic visit for radiation therapy or chemotherapy appointment. The researcher determined eligibility at that time, explained about the research, and obtained informed consent. The researcher then administered the questionnaire in a secluded examination room. Participants received both verbal and written instructions and completed the questionnaires inside the examination room. All the questionnaires required approximately 15-20 minutes to complete. Note that Radiation therapy and chemotherapy is scheduled every Monday to Friday from 8.30 – 12.00 am and 1pm – 3pm. Follow-up patients came for appointment every Thursday from 13.00 – 16.00 pm. Extra hours were available for outpatients and follow-up patients every Monday to Friday from 16.00 – 19.30 pm.

4. The researcher verified that the questionnaires were completely answered by participants.

5. The researcher performed statistical analysis of collected data.

### **Data analysis**

Data were analyzed using SPSS 18. Analysis included the following:

1. Descriptive statistics were generated to describe demographic and clinical characteristics of the sample. Continuous data was expressed as means and standard deviation (SD). Categorical data was expressed as frequencies and percentages.

2. Inferential statistics

- one-way ANOVA, and Chi-square were conducted, as appropriate, to determine the relationship between intimacy and KAP and to determine the

demographic and clinical factors related to intimacy and KAP. LSD post hoc test was used with one-way ANOVA to identify pairs of groups that significantly differed. Chi-square tests were used for categorical data.

- Stepwise multiple linear regression was conducted to determine the predictors of intimacy and KAP.

Note that in the analysis, due to the small numbers, categories of the variable education were regrouped into secondary school or lower vs beyond secondary school. Variable employment status was regrouped into employed vs unemployed. Variable monthly income was regrouped into low ( $<30,000$  baht) vs high ( $\geq 30,000$  baht) income. Variable time in marriage was regrouped into  $\leq 20$  years vs  $>20$  years.

## CHAPTER IV

### RESEARCH RESULT

The present research was conducted to study intimacy, and knowledge, attitude, and practice about sexual behaviors among Thai cervical cancer patients who were receiving treatment at King Chulalongkorn Memorial Hospital. The participants included 100 women with cervical cancer who came to receive treatment or came for routine follow-up at King Chulalongkorn Memorial Hospital. The participants were asked to complete questionnaires. The results of the study are presented in 4 parts.

Part 1 Descriptive data for demographic variables

Part 2 Intimacy and knowledge, attitude, and practice

Part 3 Relationship between intimacy and KAP

Part 4 Factors correlated with intimacy and KAP

Part 5 Predictors of intimacy and KAP



## Part1 Descriptive data for demographic variables

Table 1 Data for demographic variables in frequency and percentage

Demographic Variable	Frequency (n=100)	Percentage
<b>Age (years)</b>		
35-44	12	12.00
45-54	42	42.00
55-64	40	40.00
≥65	6	6.00
(Mean= 53.57, SD= 7.49, Min= 39, Max= 72)		
<b>Religion</b>		
Buddhism	97	97.00
Other	3	3.00
<b>Education</b>		
Primary school or lower	32	32.00
Secondary school or equivalent	31	31.00
University or college	37	37.00
<b>Employment status</b>		
Full time employment	43	43.00
Part time employment	11	11.00
Retired	7	7.00
On sick leave	7	7.00
Unemployed	32	32.00
<b>Monthly income (baht)</b>		
≤29,999	45	45.00
30,000-49,999	32	32.00
≥50,000	21	21.00
Missing	2	2.00

Table 1 (68) Data for demographic variables in frequency and percentage

Demographic Variable	Frequency (n=100)	Percentage
<b>Number of children</b>		
None	13	13.00
1	22	22.00
2	45	45.00
3	18	18.00
4	2	2.00
<b>Time in marriage with current partner (years)</b>		
<10	7	7.00
10-20	22	22.00
21-30	34	34.00
> 30	35	35.00
Missing	2	2.00
<b>Time since diagnosis (months)</b>		
(Mean= 3.56, SD= 4.23, Min= 1, Max= 33)		
<b>Disease stage</b>		
Stage 2	71	71.00
Stage 3	29	29.00
<b>Types of treatment</b>		
Radiation therapy	10	10.00
Chemotherapy	2	2.00
Both	88	88.00
<b>Treatment status</b>		
Treatment phase	53	53.00
Follow up phase	45	45.00
Missing	2	2.00

Table 1 (con) Data for demographic variables in frequency and percentage

Demographic Variable	Frequency (n=100)	Percentage
<b>Satisfaction with healthcare</b>		
Low	7	7.00
Medium	16	16.00
High	77	77.00
<b>Level of support</b>		
Low	9	9.00
Medium	7	7.00
High	84	84.00

Table 1 presents the demographic and clinical characteristics of the sample. A total of 100 women participated in the study. The mean age of participants was 53.57 years (SD =7.49). Most participants were Buddhist (97%) while the minorities (3%) were of other religion. In terms of education level, 32% reached primary school, 31% reached secondary school, and 37% went beyond secondary school. For employment status, 43% was working full time, 11% was working part time, 7% was on sick leave, another 7% was retired, and 32% was unemployed. With regards to monthly income, 45% had monthly income  $\leq$ 29,999 baht per month, 32% had income between 30,000-49,999 baht per month, and 23% had income  $\geq$ 50,000 per month. Thirteen percent was childless, 22% had one child, 45% had 2 children, 18% had 3 children, and the remaining 2% had 4 children. With regards to marriage length, 7% was married for less than 10 years, 22% was married between 10 to 20 years, 34% was married between 21 to 30 years, and 35% was married for more than 30 years. With regard to clinical variables, the majorities of participants were having stage 2 of cancer (71%) and were still undergoing treatment at the time of the study (53%). Only 29% were having stage 3 of cancer and 45% percent were within 3 months post treatment. In addition,

they were recently diagnosed with mean time since diagnosis of 3.56 months (SD= 4.23). Among the participants, 88% received a combination of radiation therapy and chemotherapy, 9% received radiation therapy alone and the remaining 2% received chemotherapy alone. On satisfaction with healthcare, 7% rated low, 16% rated medium, and 77% rated high. On level of support from partner or loved ones, 9% rated low, 7% rated medium, 84% rated high.

## Part 2 Intimacy and knowledge, attitude, and practice

**Table 2** Levels of intimacy in frequency and percentage

Level of intimacy	Frequency (n=100)	Percentage
Low	24	24.00
Medium	56	56.00
High	20	20.00

Mean =28.05, SD= 5.95, Min= 13, Max= 42

Table 2 presents data concerning levels of intimacy. Among the sample 24% scored low, 56% scored medium and 20% scored high on intimacy measure. Mean intimacy score was 28.05, SD= 5.95, Min= 13, Max= 42. Most participants obtained medium score, the second largest number of participants obtained low score, and the smallest number of participants obtained high score.

**Table 3** Levels of knowledge, attitude and practice frequency and percentage

	Knowledge		Attitude		Practice	
	(n=100)	%	(n=100)	%	(n=100)	%
Low	32	32.00	29	29.00	29	29.00
Medium	46	46.00	49	49.00	55	55.00
High	22	22.00	22	22.00	16	16.00

Table 3 presents data on knowledge, attitude, and practice scores. As seen in the table, for knowledge measure, 32% of the sample scored low, 46% scored medium and 22% scored high. Mean attitude score was 4.14, SD= 2.13, Min=1, and Max=8. The majority of participants obtained a medium score, the second largest number of participants obtained low score while the smallest numbers of participants obtained high score on knowledge measure.

In terms of attitude, 29% scored low, 49% score medium, and 22% scored high on attitude measure. Mean attitude score was 38.28, SD= 4.61, Min= 25, and Max= 51. The majority of participants obtained medium score, the second largest number of participant obtained low score while the smallest number of participants obtained high score.

With regards to practice, 29% scored low, 55% scored medium, and 16% scored high. Mean practice score was 2.33, SD= 1.28, Min= 0, Max= 7. The majority of participants obtained medium score, the second largest number of participants obtained low score and the smallest number of participants obtained high score.

### Part 3 Relationship between intimacy and KAP

**Table 4** Mean differences in knowledge scores between levels of intimacy

Levels of intimacy	n	Mean	SD.	F	P-value
Low	24	3.958	2.236	5.697	0.005**
Medium	56	3.723	1.873		
High	20	5.500	2.212		

\*\*p<0.01

Table 4 presents the result of one-way ANOVA which was used to test for the mean differences in knowledge scores between participants who obtained low,

medium, and high scores on intimacy measure. As seen in table 6, participants who scored high on intimacy scored higher on knowledge compared to participants who scored medium and low on intimacy. Participants who scored medium on intimacy scored lower on knowledge measure than participants who scored low on intimacy measure. The result of one-way ANOVA indicated that mean knowledge score differed significantly by level of intimacy,  $p < 0.05$ .

**Table 5** Pair wise comparison of knowledge score between levels of intimacy using LSD post hoc test

Intimacy	Mean	Low	Medium	High
Low	3.958		0.649	0.014*
Medium	3.723			0.001**
High	5.500			

\* $p < 0.05$ , \*\* $p < 0.01$

Table 7 presents the result of post hoc analysis using LSD. It was found that participants with high intimacy score scored significantly higher on knowledge measure than participants with low and medium intimacy scores,  $p < 0.05$ . The difference in mean knowledge score between participants with low and medium intimacy score was not significant.

**Table 6** Mean differences in attitude score between levels of intimacy

Levels of intimacy	n	Mean	SD.	F	P-value
Low	24	36.750	4.225	3.524	0.033*
Medium	56	38.196	4.522		
High	20	40.350	4.606		

\* $p < 0.05$

Table 6 presents the result of one-way ANOVA which was used to test for the mean differences in attitude score across participants who obtained low, medium, and high scores on intimacy. As seen in the table, participants with high score on intimacy measure scored higher on attitude measure compared to participants who scored medium and low on intimacy. Participants who scored medium on intimacy scored higher on attitude measure compared to participants who scored low on intimacy. The result of one-way ANOVA revealed that mean attitude score differed significantly by levels of intimacy,  $p < 0.05$ .

**Table 7** Pair wise comparison of attitude score between levels of intimacy using LSD post hoc test

Intimacy	Mean	Low	Medium	High
Low	36.750		0.190	0.009**
Medium	38.196			0.069
High	40.350			

\*\* $p < 0.01$

Post hoc analysis using LSD test was conducted and the result is shown in table 7. It was found that participants with high intimacy score scored significantly higher on attitude measure compared to participants with low intimacy score,  $p < 0.01$ . Mean differences in attitude scores between participant with medium and high level of intimacy and medium and low level of intimacy were not significant.

**Table 8** Mean differences in practice scores between levels of intimacy

Levels of intimacy	n	Mean	SD.	F	P-value
Low	24	1.958	1.083	6.724	0.002**
Medium	56	2.179	1.046		
High	20	3.200	1.704		

\*\*p<0.01

Table 8 presents the result of one-way ANOVA which was used to test for the mean differences in practice score across participants who obtained low, medium, and high scores on intimacy. It was found that participants who scored high on intimacy measure scored higher on practice measure compared to participants who scored medium and low on intimacy measure. Participants who scored medium on intimacy scored higher on practice measure compared to participants who scored low on intimacy measure. The result of one-way ANOVA suggested that mean practice score differed significantly by levels of intimacy,  $p < 0.01$ .

**Table 9** Pair wise comparison of practice score between levels of intimacy using LSD post hoc test

Intimacy	Mean	Low	Medium	High
Low	1.958		0.458	0.001**
Medium	2.179			0.002
High	3.200			

\*\*p<0.01



A post hoc analysis using the LSD test was conducted for pair wise comparison. As seen in table 9, participants with high score on intimacy measure scored significantly higher on practice measure compared to participants with low intimacy score. There were no significant differences in the mean practice score of participants who scored medium and high on intimacy measure and medium and low on intimacy measure.

#### Part 4 Factors correlated with intimacy and KAP

**Table 10** Analysis of factors correlated with intimacy by chi-square

Demographic variables	Level of intimacy n(%)			$\chi^2$	df	p-value
	Low	Medium	High			
<b>Education level</b>						
≤ secondary school	15	40	8	6.248	2	0.044*
> secondary school	5	23	9			
<b>Employment status</b>						
Employed	17	30	10	2.542	2	0.281
Unemployed	7	26	10			
<b>Monthly income (baht)</b>						
<30,000	16	24	5	7.216	2	0.027*
≥30,000	8	31	14			
<b>Time since marriage (years)</b>						
≤ 20	6	15	8	2.360	2	0.307
> 20	18	41	10			
<b>Disease stage</b>						
Stage 2	14	41	16	0.248	2	0.248
Stage 3	10	15	4			
<b>Treatment status</b>						
Treatment phase	19	27	7	8.531	2	0.014*
Follow up phase	5	29	11			

\*p<0.05

Table 10 presents the result of Chi-square analysis between demographic factors and levels of intimacy. As seen in the table, the frequencies of participants in each level of intimacy significantly differed by education level ( $\chi^2= 6.248$ ,  $p= 0,044$ ), monthly income ( $\chi^2= 7.216$ ,  $p= 0.027$ ), and treatment status ( $\chi^2= 8.531$   $p= 0.014$ ). The frequencies of participants in each level of intimacy did not differ by employment status, time since marriage, and disease stage,  $p<0.05$ .

**Table 11** Analysis of factors correlated with knowledge by chi-square

Demographic variables	Level of knowledge (n)			$\chi^2$	df	p-value
	Low	Medium	High			
<b>Education level</b>						
≤ secondary school	20	31	12	1.059	2	0.589
> secondary school	12	15	10			
<b>Employment status</b>						
Employed	19	26	12	0.132	2	0.936
Unemployed	13	20	10			
<b>Monthly income (baht)</b>						
<30,000	14	22	9	0.389	2	0.823
≥30,000	17	23	13			
<b>Time since marriage (years)</b>						
≤ 20	9	13	7	0.185	2	0.912
> 20	23	32	14			
<b>Disease stage</b>						
Stage 2	20	35	16	1.733	2	0.420
Stage 3	10	15	4			
<b>Treatment status</b>						
Treatment phase	23	21	9	6.141	2	0.046*
Follow up phase	5	29	11			

\* $p<0.05$

Table 11 presents the result of Chi-square analysis between demographic factors and levels of knowledge. As seen in the table, the frequencies of participants in each level of intimacy score significantly differed by treatment status ( $\chi^2=6.141$ ,  $p=0.046$ ). No significant relationship was found between level of intimacy and education level, employment status, monthly income, time since marriage, and disease stage,  $p<0.05$ .

**Table 12** Analysis of factors correlated with attitude by chi-square

Demographic variables	Level of attitude (n)			$\chi^2$	df	p-value
	Low	Medium	High			
<b>Education level</b>						
≤ secondary school	19	31	13	0.225	2	0.894
> secondary school	10	18	9			
<b>Employment status</b>						
Employed	16	28	13	0.079	2	0.961
Unemployed	13	21	9			
<b>Monthly income (baht)</b>						
<30,000	15	18	12	2.829	2	0.243
≥30,000	14	30	9			
<b>Time since marriage (years)</b>						
≤ 20	10	12	7	1.226	2	0.542
> 20	19	37	13			
<b>Disease stage</b>						
Stage 2	21	36	14	0.753	2	0.686
Stage 3	8	13	8			
<b>Treatment status</b>						
Treatment phase	19	24	10	2.175	2	0.337
Follow up phase	10	25	10			

Table 12 presents the result of Chi-square analysis between demographic factors and levels of attitude. As seen in the table. No significant relationship was found between level of attitude and all variables being analyzed,  $p < 0.05$ .

**Table 13** Analysis of factors correlated with practice by chi-square

Demographic variables	Level of practice (n)			$\chi^2$	df	p-value
	Low	Medium	High			
<b>Education level</b>						
≤ secondary school	23	33	7	6.066	2	0.048*
> secondary school	6	22	9			
<b>Employment status</b>						
Employed	15	34	8	1.170	2	0.557
Unemployed	14	21	8			
<b>Monthly income (baht)</b>						
<30,000	17	22	6	3.508	2	0.173
≥30,000	11	32	10			
<b>Time since marriage (years)</b>						
≤ 20	6	18	5	1.256	2	0.534
> 20	22	37	10			
<b>Disease stage</b>						
Stage 2	19	39	13	1.240	2	0.538
Stage 3	10	16	3			
<b>Treatment status</b>						
Treatment phase	19	29	5	4.781	2	0.092
Follow up phase	9	26	10			

\* $p < 0.05$

Table 13 presents the result of Chi-square analysis between demographic factors and levels of practice. As seen in the table, only education level was found to have significant relationship with levels of practice score,  $\chi^2 = 6.066$ ,  $p = 0.048$ . Employment status, monthly income, time since marriage, disease stage, and treatments status did not have a significant relationship with levels of practice,  $p < 0.05$ .

**Table 14** Mean difference in age between levels of intimacy by one-way ANOVA

Levels of intimacy	n	Mean	SD.	F	P-value
Low	24	54.71	8.690	2.719	0.022*
Medium	56	54.30	7.378		
High	20	50.15	5.304		

\* $P < 0.05$

Table 14 presents the comparison of mean age among each level of intimacy. Participants with high intimacy score were younger than participants with medium and low intimacy score. Participants with low intimacy score were older than participants with medium intimacy score. As seen in the table, age differed significantly by level of intimacy,  $p < 0.05$ .

**Table 15** Pair wise comparison of mean age between levels of intimacy using LSD post hoc test

Intimacy	Mean	Low	Medium	High
Low	54.71		0.822	0.044*
Medium	54.30			0.033*
High	50.15			

\* $p < 0.05$

LSD post hoc comparison revealed that participants with high score on intimacy measure were significantly younger than participants with low and medium intimacy score. The mean age between participants with low and medium intimacy score was not significant.

**Table 16** Mean difference in age between levels of knowledge by one-way ANOVA

Levels of knowledge	n	Mean	SD.	F	P-value
Low	32	53.78	8.958	0.029	0.971
Medium	46	53.57	7.366		
High	22	53.27	5.470		

Table 16 presents the comparison of mean age among each level of knowledge. Participants with high score on knowledge were younger than participant with low and medium score on knowledge. Participants with low score on knowledge were older than participants with medium score on knowledge. However, as seen in the table, the mean differences were not statistically significant,  $p < 0.05$ .

**Table 17** Mean difference in age between levels of attitude score by one-way ANOVA

Levels of attitude	n	Mean	SD.	F	P-value
Low	29	53.45	8.943	0.059	0.943
Medium	49	53.82	7.132		
High	22	53.18	6.449		

Table 17 presents the comparison of mean age among each level of attitude score. Participants with high score on attitude measure were younger than participants with low and medium score on attitude. Participants with low attitude score were younger than participants with medium attitude score. However, as seen in the table, the mean differences in age were not statistically significant,  $p < 0.05$ .

**Table 18** Mean difference in age between levels of practice score by one-way ANOVA

Levels of practice	n	Mean	SD.	F	P-value
Low	29	54.66	8.474	1.659	0.196
Medium	55	53.88	7.165		
High	16	54.56	6.293		

Table 18 presents the comparison of mean age among participants with each level of practice score. Participants with high score on practice were older than participants with medium practice score but younger than participants with low practice score. Participants with low practice score were older than participants with medium practice score. However, the differences in mean age were not statistically significant,  $p < 0.05$ .

**Table 19** Mean difference in time since diagnosis between levels of intimacy by one-way ANOVA

Levels of intimacy	n	Mean	SD.	F	P-value
Low	23	3.48	6.508	0.067	0.935
Medium	54	3.48	3.511		
High	18	3.89	2.324		

Table 19 presents the comparison of mean time since diagnosis in month between each level of intimacy score. Participants with high intimacy score had longer mean time since diagnosis compared to participants with low and medium score on intimacy. Participants with low and medium score on intimacy had equal mean time since diagnosis. These differences, however, were not statistically significant,  $p < 0.05$ .

**Table 20** Mean difference in time since diagnosis between levels of knowledge by one-way ANOVA

Levels of knowledge	n	Mean	SD.	F	P-value
Low	32	2.69	1.958	1.158	0.319
Medium	43	4.19	5.848		
High	20	3.60	2.088		

Table 20 presents the comparison of mean time since diagnosis in month between each level of knowledge score. Participants with high score on knowledge



measure had shorter mean time since diagnosis compared to participants with medium knowledge score. They, however, had longer mean time since diagnosis compared to participants with low knowledge score. Participants with medium knowledge score had longer mean time since diagnosis compared to participants with low knowledge score. These mean differences were not statistically significant,  $p < 0.05$ .

**Table 21** Mean difference in time since diagnosis between levels of attitude by one-way ANOVA

Levels of attitude	n	Mean	SD.	F	P-value
Low	29	3.59	5.895	0.001	0.999
Medium	47	3.55	3.670		
High	19	3.53	2.195		

Table 21 presents the comparison of mean time since diagnosis in month between each level of attitude score. Participants with high attitude score had shorter mean time since diagnosis compared to participants with low and medium attitude score. Participants with low attitude score had longer mean time since diagnosis compared to participants with medium attitude score. These differences in mean, however, were not statistically significant,  $p < 0.05$ .

**Table 22** Mean difference in time since diagnosis between levels of practice by one-way ANOVA

Levels of practice	n	Mean	SD.	F	P-value
Low	26	2.46	1.679	1.215	0.302
Medium	53	3.94	5.344		
High	16	4.06	2.323		

Table 22 presents the comparison of mean time since diagnosis in month between each level of practice score. Participants with high score on practice measure had longer mean time since diagnosis compared to participants with medium and low practice score. Participants with low practice score had shorter mean time since diagnosis compared to participants with medium practice score. These differences, however, were not statistically significant,  $p < 0.05$ .

#### Part 5 Predictors of intimacy and KAP

**Table 23** Stepwise multiple regression for predictors of intimacy

Variable	R	R <sup>2</sup>	B	t	P-value
(91)		29.943	39.571	0.000**	
Income	0.368	0.149	-4.580	-4.076	0.000**

S.E.est= 5.509, F= 16.616, \*\*P<0.01

Based on the preceding univariate analysis, age, education level, income level, and treatment status was entered into stepwise multiple regression model. The resulting model indicated that low income ( $< 30,000$ ) as compared to high income ( $\geq 30,000$ ) was found to be the predictor for intimacy. The model explained 14.9% of the variance in intimacy score.

**Table 24** Stepwise multiple regression for predictors of practice

Variable	R	R <sup>2</sup>	B	t	P-value
(70)		2.784	13.686	0.000**	
Income	0.273	0.075	-0.720	-2.811	0.006**

S.E.est= 1.237, F= 7.900, \*\*P<0.01

Based on the preceding univariate analysis, income was entered into stepwise multiple regression model. The resulting model indicated that low income (<30,000), as compared to high income ( $\geq$ 30,000), was found to be the predictor for practice score. The model explained 7.5% of the variance in practice score.

Note that when univariate analysis was conducted, no demographic variable was found to be correlated with attitude score. As a result, a stepwise multiple regression was not conducted for attitude score. Finally, univariate analysis suggested that treatments status was correlated with knowledge score. However, when multiple regression was conducted, the resulting model indicated that treatment status was not a significant predictor for knowledge score,  $p<0.05$ .

## CHAPTER V

### CONCLUSION AND RECOMMENDATIONS

#### General Conclusion

This was a cross-sectional descriptive study with the objective to

1. Study intimacy and knowledge, attitude, and practice about sexual behavior among cervical cancer patients at King Chulalongkorn Hospital

2. Determine the factors correlated with intimacy and knowledge, attitude and practice about sexual behavior.

3. Determine the correlation between intimacy and knowledge, attitude, and practice about sexual behavior.

Participants were cervical cancer patients who came to King Chulalongkorn Memorial Hospital for treatment or follow up during the period of October 2011 to February 2012.

The instruments used were intimacy questionnaire which was translated by the researcher and KAP questionnaires which was developed by the researcher.

In terms of statistical analysis, descriptive statistic such as mean, standard deviation, frequencies, and percentage were generated to describe the variables being studied. One-way ANOVA and chi-square were used to study the relationship between intimacy and KAP and to determine the factors correlated with intimacy and KAP. Stepwise multiple linear regression was used to determine the predictors of intimacy and KAP.

#### 1. Demographic data

Table 1 presents the demographic and clinical characteristics of the sample. A total of 100 women participated in the study. The mean age of participants was 53.57 years (SD =7.49). Most participants were Buddhist (97%) while the minorities (3%) were of other religion. In terms of education level, 32% reached primary school, 31% reached secondary school, and 37% went beyond secondary school. For employment status, 43% was working full time, 11% was working part time, 7% was on sick leave, another 7% was retired, and 32% was unemployed. With regards to monthly income, 45% had monthly income  $\leq$ 29,999 baht per month, 32% had income between 30,000-49,999 baht per month, and 23% had income  $\geq$ 50,000 per month. Thirteen percent was childless, 22% had one child, 45% had 2 children, 18% had 3 children, and the remaining 2% had 4 children. With regards to marriage length, 7% was married for less than 10 years, 22% was married between 10 to 20 years, 34% was married between 21 to 30 years, and 35% was married for more than 30 years. With regard to clinical variables, the majorities of participants were having stage 2 of cancer (71%) and were still undergoing treatment at the time of the study (53%). Only 29% were having stage 3 of cancer and 45% percent were within 3 months post treatment. In addition, they were recently diagnosed with mean time since diagnosis of 3.56 months (SD= 4.23). Among the participants, 88% received a combination of radiation therapy and chemotherapy, 9% received radiation therapy alone and the remaining 2% received chemotherapy alone.

## 2.Data describing intimacy and KAP score

Among the sample 24% scored low, 56% scored medium, and 20% scored high on intimacy. For knowledge, 32% scored low, 46% scored medium and 22% scored high. In term of attitude, 29% scored low, 49% scored medium, and 22% scored high. For practice, 29% scored low, 55% scored medium, and 16% scored high. Overall, the majority of participants scored in the medium cut off range across all measures of intimacy and KAP.

### 3. Factors correlated with intimacy and KAP

Factors correlated with high intimacy were high knowledge, attitude, and practice scores, young age, high education and high income ( $p < 0.05$ ). Factor correlated with low intimacy was ongoing treatment ( $p < 0.05$ ). Factors correlated with high knowledge was having completed treatment ( $p < 0.05$ ). Factor correlated with low practice score was low level of education.

### 4. Predictors of intimacy and KAP

Low income as compared to high income was found to predict intimacy with predictive value of 14.9. Similarly, low income as compared to high income was found to predict practice score with predictive value of 7.5.

## Discussion

This is one of the first study to explore intimacy and knowledge, attitude, and practice on sexual behavior among Thai cervical cancer patients. The data from this study evidences that the majority of the sample have medium scores across all measures. As there is no established research that directly investigates these issues in other groups of cervical cancer patients, comparison and interpretation of the result obtained is difficult. Nevertheless, one thing that might be said about the result is that, if we take low score to be the site where potential problems may arise then the results seem to be favorable among this sample of Thai cervical cancer patients as the scores of participants across all measures largely fall within the medium and high cut off range across all measures.

For the first item on practice measure, about one third reported that they had sex at least once during the two months before they completed the questionnaires and roughly 20% had used an alternative way to engage in sexual activity that did not involve vaginal penetration. This figure is somewhat lower than the findings among

Western population that 63% (73) and 61% (40) of cervical cancer patients are sexually active 1 and 2 years, respectively, post treatment. The comparison, however, should be viewed with caution due to the difference in methodology. The current study looks at participants who were receiving treatment or within 3 months post treatment however, the studies cited previously are longitudinal studies looking at cervical cancer survivors 1 to 2 years post treatment. Also, the mean age of participants in this study is older than the mean age of participants in Cull's (40) study and this may explain the lower rate of sexual activity as there is a report that older people have sex less often than younger people (7, 40, 92, 93). Furthermore several studies have reported that the median time for sexual resumption is about 4 to 4.5 months after hysterectomy and chemotherapy (60) and that there is a decline in the frequency of intercourse measured at 4 months post gynecological cancer treatment (48). Moreover, shortly after diagnosis and treatment, women had to cope with having the disease and tend to concentrate on the impact of diagnosis and treatment on their health and their life rather than sexual activity (94). Pain during intercourse, particularly intense especially in the first month following treatment (95), was also identified as significant deterrent to participating in sexual activity(96). The lower rate of sexual activity in this study is not surprising given these findings.

Another major finding is that high intimacy score is correlated with high practice score and that participants with low intimacy also tend to score low on practice measure. This supports the argument of Taylor (97) & Hawkins (94) that closeness and non sexual intimacy including open communication are likely to decrease when sexual relation decreases or discontinues. This may consequently exacerbate existing relationship conflict or problems and perpetuate sexual dysfunction. If psychosocial intervention is being considered, particular attention should be paid to patients with low scores on intimacy and practice measure. The present study, however, only looks at married couples and as a result may have overlooked cases of separation with relationship problems resulting from cancer associated stress. Future study may want to

examine how level of intimacy and sexual behaviors are related to spousal relationship problems.

Intimacy is correlated with high education and high income. This may be explained by the illness intrusiveness theoretical framework which proposes that the degree to which disease and treatment interfere with lifestyle, interests, and activity varies as a function of context in which they arise (94). According to Thome (94), good economic conditions in cancer patients may improve quality of life. There is an argument that socio-economic factors establish the context in which chronic illness is experienced and social class, frequently represented by education and income, are among the most powerful contextual domain that determine the exposure (98) and vulnerability to stress (99). The degree in which patients experience illness intrusiveness thus varies as a function of these contextual domains. Adaptive challenges differ across life experiences (eg. Relationships and intimacy) and contribute to difference in illness intrusiveness (11). In fact, in a study about illness intrusiveness among cancer patients of various type, it was found that compared to patients with high income, patients with low income report more illness intrusiveness (10). Devin (100) argues that life in general is more difficult when financial resource is limited and this may be more pronounced when the diagnosis and treatment of cancer interfere with work and finance. Similarly, participants with high level of education may adjust more easily to change. People with higher education have more coping resources. Education is also a proxy for intelligence. People with higher education should be more effective at managing disruption brought about by cancer and treatments (101).

It was also found in this study that low intimacy is correlated with ongoing treatment status. In other words, participants who had not completed their treatment seem to have lower intimacy than participants whose treatment had been completed. One explanation for this could be that, at the wake of treatment, the abrupt physical side effects has left the patients with little time to adjust and resulted in feeling of grief, anxiety, and depression (41, 102). According to Schultz and van de Weil (103) psychological distress can have a strong negative effect on sexuality and how



gynecological cancer patients experience sexuality at the start of treatment. Accordingly, alteration in sexual relationship can ultimately result in relationship problem such as emotional distant between the couples (91). One study found that, among Irish gynecological cancer patients, those on treatment tend to have poor sexual functioning compared to those who had completed treatment (68). For the participants who had completed treatment, stress that was initially heighten because of the abrupt change in life style associated with treatment may have reduced and participants in this group may be more adapted with living with the disease. Similarly, the burden associated with gynecological cancer treatment and the intense coping demands may make couple's communication more challenging which may result in harm to couple's relationship (68).

Previous researches have found that the level of sexual problems among cervical cancer patients differed by stage of the disease (71) but stages did not have a significant relationship with sexual activity (70). Consistent with this research, practice score does not vary by stage of cervical cancer. It seems that, in this study, severity of the disease does not have significant effect on intimacy or sexual behavior. Note, however, that due to small sample size, difference may have been overlooked.

It was also found in the present study that younger participants tend to have higher level of intimacy compared to older participants. It must be noted that many items on the intimacy questionnaire were questions relating to sexual intimacy. As a result, the intimacy scores obtained may heavily reflect sexual intimacy rather than non sexual intimacy and since younger people have sex more frequently than older people (76), they were observed to have higher score on intimacy questionnaire in this study. In other words, the intimacy score obtained maybe biased in a sense that it does not reflect actual level of intimacy but merely reflect that younger people were more sexually active than older people. Similarly, the intimacy questionnaire being based largely on sexual activities meant that those who were sexually inactive would obtain a low score on this measure as they would have obtained no mark on questions about sexual relationships.

The majority of participants in this study scores medium on knowledge and only 10% of participants answer all questions correctly. This reflects that insufficient knowledge and misconceptions about cervical cancer and related sexual issues largely exist among participants. This finding is consistent with other study, for instance, more than 50% of cervical cancer patients in Cull et al. (68)'s study felt that they needed additional information about the cause of cervical cancer and the risk of recurrence after treatment. A significant minority also felt that they needed help in knowing what to do with their sexual relationship (40). Similarly, in Vincent et al.'s study, 80% of cervical cancer patients reported that they needed more information on sexual issues from their physicians and of these, 56% felt that they were not sufficiently informed about sex (46). Likewise, a result from a study done in Thailand indicated that almost half of the women have queries relating to sexual health (45). This gap in knowledge and understanding is suggestive of the need for more comprehensive medical education among population of all socioeconomic and racial backgrounds, especially when there were evidences that this may improve their overall wellbeing (104) and that persistent anxiety about recurrence was related to the desire for more information about the risk factors contributing to relapse (46).

The issue of lack of knowledge needs to be addressed for both the women and their partner. This is because, according to some research, lack of knowledge is a barrier to open communication about sexual issues between couples and this lack of communication could lead to misunderstanding and avoidance of sexual activities which in turn may disrupt couple's relationship (105). Note also that it is possible that the lack of knowledge among participants in this study contributed to the vast percentage of women who were not sexually active.

Barrier to access to knowledge may include the lack of privacy during clinic visits or hospitalization that hinder the patients from discussing sexual issues with medical staff (53) and lack of knowledge, time, and skill on part of medical staffs to deal with sexual issues and concerns of patients . Patients may not know about the informational resources available or may not have access, for instance, to online

materials. Patients may also be reluctant to ask questions about sexual issues due to embarrassment . Thai cultural background which views the discussion of sexual topics negatively may also play a role in preventing the discussion about sexual issues. In order to address these issues, medical staff should also be educated on this subject matter. Addressing these issues early on in the cancer trajectory will also legitimize patient's sexual concern. This will also let them know that they can bring up sexual issues whenever concerns arise . In fact, among the participants in this study, 89% agreed and strongly agreed that medical staffs should provide information about sexual alterations or sexual issues related to diagnosis and treatment of cervical cancer.

In this study, the demographic factor found to be correlated with high knowledge score is treatment completion. Participants who had completed their treatment, compared to those that had not, had more experience with the disease. They had been with the disease longer and maybe more exposed to information about the disease, for instance, through the discussion with medical staffs or through their own research.

Contrary to a similar study about KAP on cervical cancer in relations to HPV virus among young Italian women , the present study did not find that younger women have more knowledge about cervical cancer and related sexual issues compared to older women. The discrepancy in findings is likely due to small sample size and difference in methodology. The Italian research studied knowledge about cervical cancer in relation to HPV virus but the present study investigates knowledge about cervical cancer in relation to sexual issue. It has been argued that the reason why younger women were more knowledgeable in the Italian study was because younger women were mainly the target of public health education, prevention, and vaccination campaigns. In the present study, the reason that no difference in knowledge was observed between the two age groups could be that, given that sexual issues is a "taboo" subject in Thai cultural background, sexual issues were rarely talked about even in medical settings, thus the participants in the two age group were equally unexposed to these kinds of information.

Finally, in terms of practice score, it was found that low practice score was correlated with low level of education. A possible explanation might be that participants with low level of education were also less knowledgeable about cervical cancer and related sexual health issues. It could be that they did not have access to valuable resources that provide information concerning these issues or if they did have access, the information may be presented in such a way that it was too “medicalised” which may be difficult to understand. They may worry about the risk of recurrence or the harm associated with sexual activity and this in turn influenced their decision not to engage in sexual activities.

In terms of predictor, low income as compared to high income was found to predict intimacy and practice score. So it seems that participants with low income have a greater risk of having low intimacy and practice. Intervention programs might target this group of at risk participants.

The major strength of this study is the Thai cervical cancer patients which, to the researcher’s knowledge, have not ever been studied before, in terms of intimacy and KAP on sexual behavior. Therefore, the result of this study provides new knowledge and new insight in this area of interest. It also raises the importance of these issues and set the foundation for further research in this area.

### **Limitations**

The limitations of the present study include

1. This is a cross-sectional study. This limits the ability to draw conclusion about the changes induced by cervical cancer in variables being studied. A present cross-sectional study emphasizes the need for a longitudinal study which would be more effective in the thorough evaluation of changes in intimacy and KAP pre and post cancer treatment. In addition, to put the results in perspective, a study should be conducted in which the questionnaires are answered by general population so that the results can be compared with those of cancer patients.

2. The small sample size and the non-random nature of participant selection means the sample might not be representative of the population and might only represent healthy individuals who were comfortable enough to discuss private sexual matters with the researcher.

3. In a culture in which sexual related matters are considered “tabooed” in the public realm, truthfulness of responds from patients is questionable. Patients may be reluctant to admit they have problems or were satisfied with their marital relationship and sex life. Patients may also be concerned about confidentiality of the returned questionnaire. Although it must be recognized that there is also a “taboo” associated with talking about sexual matters in Western culture, this “taboo” is enforced more strongly by people in Asian culture. Future study might want to use measures to ensure confidentiality, may be by letting all participants return questionnaires in a large box or envelope in order to ensure that it is impossible to know which questionnaire belong to whom.

4. This study only includes patients who were currently married at the time of the study and thus may have excluded women whose relationships had ended due to the stressors brought about by cervical cancer. The reason to included only married participants is because of the existing cultural background which positions sexual relationships outside of marriage as inappropriate. Thus, if unmarried women were included, they might not respond to the questions as they may hesitate to admit having sexual relationships.

5. As already mentioned in the discussion section, the intimacy questionnaire used in this study is based largely on sexual intimacy. Future study may want to use questionnaire with fewer questions on sexual intimacy in order to more thoroughly study non sexual intimacy.

## **Recommendation**

1. In the present study, the results show that participants do not have sufficient knowledge about cervical cancer and related sexual health issue. Thus,

medical education should be provided for both cervical cancer patients and their partners as the lack of knowledge can lead to misunderstanding which could potentially disrupt couple's relationship. Particular attention might be paid to patients with low education and those in the treatment phase. One of the simplest ways to provide knowledge is through the use of pamphlet which contains information about cervical cancer and related sexual issues. The pamphlets may be given out to patients during hospital visit. Future study should also directly investigate intimacy and KAP among the male partners of cervical cancer patients in order to gain more understanding of how cervical cancer effect couple's relationship. Finally, providing education could also help introduce realistic expectations in the change in lifestyle and adaptation process.

2. There is also a need for qualitative study in order to gain in depth understanding on the subject of intimacy and knowledge, attitude, and practice on sexual behavior. The knowledge from a qualitative study may be useful in a prevention program, for instance, if it was found that patients were expecting oncology nurses to discuss sexual issues with them but nurses never brought up the topic because they lack the knowledge in this area then providing nurses with knowledge about sexual health would be one possible solution.

3. Analytical research may be conducted, for instance, to identify the risk factors for low level of intimacy among participants with different characteristics. The data obtained can be useful in identifying target for intervention.

4. Psychosocial intervention or couple therapy might be considered targeting couples with low intimacy and practice score or those who are experiencing relationship problems. In the fight against cancer, cancer survivors in committed relationship who adjust well to diagnosis and treatment of cancer say that they do not do it alone but their partners are the greatest allies. Emotional supports from partner or husband thus play an important role in the coping and adjustment of patients.

5. Self help and support groups among patients and survivors of cervical cancer will allow patients to share experiences, thoughts, and worries. Discussing private sexual issues with people who are experiencing similar problems

might also be easier. Although, note that due to the intimate nature of the issue of concern, therapeutic groups may be difficult to implement.

6. The data from the present study may be utilized to identify “at risk” individuals in the screening and assessment process before clinically significant problems arise. The finding suggests that screening might profitably target those patients with comparatively low income, low education, patients in treatment phase, and patients with low intimacy and KAP scores.

In conclusion, this research raises the discussion about the issues of intimacy and sexuality among Thai cervical cancer patients. It provides preliminary insight into intimacy and KAP on sexual behaviors among cervical cancer patients. This area of interest has yet to be explored more extensively in order to improve the quality of life and address relationship issues among patients with cancer affecting reproductive parts of the body. Future research should replicate this finding with larger, more diverse, and more representative samples of cervical cancer patients.

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## Appendices

## Appendix A



**Appendix B**  
Instruments

 <p>คณะแพทยศาสตร์ จุฬาลงกรณ์ มหาวิทยาลัย</p>	<p>เอกสารข้อมูลคำอธิบายสำหรับ ผู้เข้าร่วมในโครงการวิจัย (Information sheet for research participant)</p>
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ชื่อโครงการวิจัย ความผูกพันเชิงลึกซึ่งและความรู้ ทักษะ และ การปฏิบัติ เกี่ยวกับพฤติกรรมทาง  
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ผู้ร่วมวิจัย

ชื่อ ศาสตราจารย์แพทย์หญิงนันทิกา ทวิชาชาติ  
เรียน ผู้เข้าร่วมโครงการวิจัยทุกท่าน  
ท่านได้รับเชิญให้เข้าร่วมในโครงการวิจัยนี้ เนื่องจากท่านเป็นผู้ป่วยโรคมะเร็ง  
ปากมดลูกที่ โรงพยาบาลจุฬาลงกรณ์ ก่อนที่ท่านจะตัดสินใจเข้าร่วมในการศึกษาวิจัยดังกล่าว  
ขอให้ท่านอ่านเอกสารฉบับนี้อย่างถี่ถ้วน เพื่อให้ท่านได้ทราบถึงเหตุผลและรายละเอียดของการ  
ศึกษาวิจัยในครั้งนี้ หากท่านมีข้อสงสัยใด ๆ เพิ่มเติม กรุณาซักถามจากผู้ทำวิจัยซึ่งจะเป็นผู้  
สามารถตอบคำถามและให้ความกระจ่างแก่ท่านได้

ท่านสามารถขอคำแนะนำในการเข้าร่วมโครงการวิจัยนี้จากครอบครัว เพื่อน  
หรือแพทย์ประจำตัวผู้ป่วยที่ท่านดูแลได้ ท่านมีเวลาอย่างเพียงพอในการตัดสินใจโดยอิสระ ถ้า  
ท่านตัดสินใจแล้วว่าจะเข้าร่วมในโครงการวิจัยนี้ ขอให้ท่านลงนามในเอกสารแสดงความยินยอม  
ของโครงการวิจัยนี้

เหตุผลความเป็นมา

ผู้ป่วยมะเร็งปากมดลูกอาจมีปัญหาเกี่ยวกับการมีเพศสัมพันธ์ อย่างเช่น มีความยากลำบากในการ  
มีเพศสัมพันธ์ เนื่องจากมีอาการเจ็บปวดเมื่อมีเพศสัมพันธ์และมีน้ำหล่อลื่นในช่องคลอดน้อยลง  
ซึ่งอาจจะเป็นผลต่อเนื่องจากการป่วยเป็นมะเร็งปากมดลูกหรือเป็นผลข้างเคียงจากวิธีการรักษา



มะเร็งปากมดลูก ปัญหาการมีเพศสัมพันธ์ที่เกิดขึ้นนี้ อาจส่งผลกระทบต่อความสัมพันธ์ระหว่างตัวผู้ป่วยและสามี ซึ่งจากการทบทวนวรรณกรรมที่เกี่ยวข้อง พบว่า การศึกษาถึงความผูกพันเชิงลึกซึ่งของผู้ป่วยมะเร็งปากมดลูกและสามีนั้นยังไม่เคยมีการทำวิจัยเลยในประเทศไทย ผู้วิจัยจึงสนใจที่จะศึกษาความผูกพันเชิงลึกซึ่งและความรู้ ทัศนคติ และการปฏิบัติ เกี่ยวกับพฤติกรรมทางเพศของผู้ป่วยมะเร็งปากมดลูกที่มารับการรักษาที่โรงพยาบาลจุฬาลงกรณ์ เพื่อจะได้ข้อมูลที่เป็นประโยชน์ในการใช้เป็นแนวทางในการส่งเสริมสุขภาพจิตและคุณภาพชีวิตในผู้ป่วยมะเร็งปากมดลูกและครอบครัว โครงการนี้จะมีจำนวนอาสาสมัครเข้าร่วมทั้งหมด 100 คน

### วัตถุประสงค์ของการศึกษา

1. เพื่อศึกษาเกี่ยวกับความผูกพันเชิงลึกซึ่งและความรู้ ทัศนคติ และการปฏิบัติ เกี่ยวกับพฤติกรรมทางเพศของ ผู้ป่วยมะเร็งปากมดลูก ที่เข้ารับการรักษาที่โรงพยาบาลจุฬาลงกรณ์
2. เพื่อศึกษาปัจจัยที่เกี่ยวข้องกับความผูกพันเชิงลึกซึ่งและความรู้ ทัศนคติ และการปฏิบัติ เกี่ยวกับพฤติกรรมทางเพศของผู้ป่วยมะเร็งปากมดลูก ที่เข้ารับการรักษาที่โรงพยาบาลจุฬาลงกรณ์

### วิธีการที่เกี่ยวข้องกับการวิจัย

หากท่านมีคุณสมบัติตามเกณฑ์คัดเลือกและยินยอมที่จะเข้าร่วมในโครงการวิจัยนี้ท่านจะได้รับแบบสอบถาม ซึ่งท่านจะต้องเป็นผู้ทำด้วยตนเอง แบบสอบถามประกอบด้วย แบบสอบถามข้อมูลทั่วไป แบบสอบถามความผูกพันเชิงลึกซึ่ง (Intimacy questionnaire) แบบสอบถามความรู้ ทัศนคติและการปฏิบัติเกี่ยวกับพฤติกรรมทางเพศของผู้ป่วยมะเร็งปากมดลูก(KAP questionnaire) โดยจะใช้เวลาในการตอบแบบสอบถามประมาณ 20-30 นาที

### ความรับผิดชอบของอาสาสมัครผู้เข้าร่วมในโครงการวิจัย

เพื่อให้งานวิจัยนี้ประสบความสำเร็จ ผู้ทำวิจัยใคร่ขอความร่วมมือจากท่าน โดยจะขอให้ท่านปฏิบัติตามคำแนะนำของผู้ทำวิจัย รวมทั้งแจ้งอาการผิดปกติต่าง ๆ ที่เกิดขึ้นกับท่านระหว่างที่ท่านเข้าร่วมในโครงการวิจัยให้ผู้วิจัยได้รับทราบ

### ความเสี่ยงที่อาจได้รับ

ท่านอาจเสียเวลา หรือเกิดความอึดอัดใจเนื่องจากข้อคำถามซึ่งถามเกี่ยวกับเรื่องส่วนตัวหรือไม่สะดวกในการเข้าร่วมโครงการวิจัย

### ประโยชน์ที่อาจได้รับ

ท่านจะไม่ได้รับประโยชน์ใด ๆ จากการเข้าร่วมในการวิจัยครั้งนี้ แต่ผลการศึกษาที่ได้จะเป็นประโยชน์ในการใช้เป็นแนวทางในการส่งเสริมสุขภาพจิตในผู้ป่วยมะเร็งปากมดลูกและครอบครัว

### **ข้อปฏิบัติของท่านขณะที่ร่วมในโครงการวิจัย**

ขอให้ท่านปฏิบัติดังนี้

- ขอให้ท่านให้ข้อมูลของท่านทั้งในอดีต และปัจจุบัน แก่ผู้ทำวิจัยด้วยความสัตย์จริง
- ขอให้ท่านแจ้งให้ผู้ทำวิจัยทราบความผิดปกติที่เกิดขึ้นระหว่างที่ท่านร่วมในโครงการวิจัย
- หากท่านไม่สะดวกในการอ่านข้อความด้วยตนเอง ท่านสามารถขอให้คำถามให้ฟัง โดยท่านเป็นคนตอบแบบสอบถามด้วยตนเอง
- หากท่านมีข้อสงสัยประการใด สามารถซักถามผู้วิจัยได้โดยตรง

### **อันตรายที่อาจเกิดขึ้นจากการเข้าร่วมในโครงการวิจัยและความรับผิดชอบของผู้ทำวิจัย/ผู้สนับสนุนการวิจัย**

หากท่านไม่สะดวกในการตอบคำถาม ท่านสามารถปฏิเสธที่จะไม่ตอบคำถามข้อใดก็ได้ หรือถอนตัวจากการวิจัยเมื่อใดก็ได้ โดยท่านไม่เสียผลประโยชน์ใด ๆ ทั้งสิ้น

ในกรณีที่ท่านต้องการข้อมูลเพิ่มเติมที่เกี่ยวข้องกับโครงการวิจัยท่านสามารถติดต่อกับนางสาวเหมือนดาว คงวรรณรัตน์ ได้ตลอด 24 ชั่วโมง ที่เบอร์โทรศัพท์ 080-958-4787

อาสาสมัครสามารถขอคำแนะนำจากผู้ร่วมวิจัยซึ่งเป็นจิตแพทย์หากอาสาสมัครมีปัญหาหรือต้องการคำปรึกษา โดยสามารถติดต่อผ่านทางผู้ทำวิจัยคือ นางสาวเหมือนดาว คงวรรณรัตน์ ที่เบอร์โทรศัพท์ 080-958-4787

### **การเข้าร่วมและการสิ้นสุดการเข้าร่วมโครงการวิจัย**

การเข้าร่วมในโครงการวิจัยครั้งนี้เป็นไปโดยความสมัครใจ หากท่านไม่สมัครใจจะเข้าร่วมการศึกษาแล้ว ท่านสามารถถอนตัวได้ตลอดเวลา การขอถอนตัวออกจากโครงการวิจัยจะไม่มีผลต่อการดูแลรักษาโรคของท่านแต่อย่างใด

ผู้ทำวิจัยอาจถอนท่านออกจากการเข้าร่วมการวิจัย เพื่อเหตุผลด้านความปลอดภัยของท่าน หรือในกรณีที่ท่านไม่สามารถปฏิบัติตามคำแนะนำของผู้ทำวิจัย

### **การปกป้องรักษาข้อมูลความลับของอาสาสมัคร**

ข้อมูลนี้อาจนำไปสู่การเปิดเผยตัวท่าน จะได้รับการปกปิดและจะไม่เปิดเผยแก่สาธารณชน ในกรณีที่ผลการวิจัยได้รับการตีพิมพ์ ชื่อและที่อยู่ของท่านจะต้องได้รับการปกปิดอยู่เสมอ โดยจะใช้เฉพาะรหัสประจำโครงการวิจัยของท่าน

จากการลงนามยินยอมของท่าน ผู้ทำวิจัย สามารถเข้าไปตรวจสอบบันทึกข้อมูลของท่านได้แม้จะสิ้นสุดโครงการวิจัยแล้วก็ตาม หากท่านต้องการยกเลิกการให้สิทธิ์ดังกล่าว ท่านสามารถ

แจ้งหรือเขียนบันทึกขอยกเลิกการให้คำยินยอม โดยส่งไปถึงผู้ทำวิจัย นางสาวเหมือนดาว  
คงวรรณรัตน์ ที่ 125/253 หมู่บ้านแมกไม้ ซ. รามอินทรา 103/3 ถ. รามอินทรา คันทนายาว 10230

หากท่านขอยกเลิกการให้คำยินยอมหลังจากที่ท่านได้เข้าร่วมโครงการวิจัยแล้ว ข้อมูล  
ส่วนตัวของท่านจะไม่ถูกบันทึกเพิ่มเติม อย่างไรก็ตามข้อมูลอื่นๆของท่านอาจถูกนำมาใช้เพื่อ  
ประเมินผลการวิจัย และท่านจะไม่สามารถกลับเข้าร่วมโครงการนี้ได้อีก ทั้งนี้เนื่องจาก  
ท่านที่จำเป็นสำหรับใช้เพื่อการวิจัยไม่ได้ถูกบันทึก


### **สิทธิของผู้เข้าร่วมโครงการวิจัย**

ในฐานะที่ท่านเป็นผู้เข้าร่วมในโครงการวิจัย ท่านจะมีสิทธิดังต่อไปนี้

1. ท่านจะได้รับทราบข้อมูลเกี่ยวกับลักษณะและวัตถุประสงค์ของการวิจัยครั้งนี้
2. ท่านจะได้รับการอธิบายเกี่ยวกับระเบียบวิธีการของการวิจัย
3. ท่านจะได้รับการอธิบายถึงความเสี่ยงและความไม่สบายที่อาจได้รับจากการวิจัย
4. ท่านจะได้รับการอธิบายถึงประโยชน์ที่ท่านอาจจะได้รับจากการวิจัย
5. ท่านจะมีโอกาสได้ซักถามเกี่ยวกับงานวิจัยหรือขั้นตอนที่เกี่ยวข้องกับงานวิจัย
6. ท่านจะได้รับทราบว่าการยินยอมเข้าร่วมในโครงการวิจัยนี้ ท่านสามารถขอถอนตัวจาก  
โครงการเมื่อไรก็ได้โดยผู้เข้าร่วมโครงการวิจัยสามารถขอถอนตัวจากโครงการโดยไม่ได้รับ  
ผลกระทบใด ๆ ทั้งสิ้น
7. ท่านจะได้รับสำเนาเอกสารใบยินยอมที่มีทั้งลายเซ็นและวันที่
8. ท่านมีสิทธิในการตัดสินใจว่าจะเข้าร่วมโครงการวิจัยหรือไม่ก็ได้ โดยปราศจากการใช้อิทธิพล  
บังคับ ช่มชู้ หรือหลอกลวง

หากท่านไม่ได้รับการชดเชยอันควรต่อการบาดเจ็บหรือเจ็บป่วยที่เกิดขึ้นโดยตรงจากการ  
วิจัย หรือท่านไม่ได้รับการปฏิบัติตามที่ปรากฏในเอกสารข้อมูลคำอธิบายสำหรับผู้เข้าร่วมในการ  
วิจัย ท่านสามารถร้องเรียนได้ที่คณะกรรมการจริยธรรมการวิจัย คณะแพทยศาสตร์ จุฬาลงกรณ์  
มหาวิทยาลัย ตึกอำนวยการ 3 ชั้น 3 โรงพยาบาลจุฬาลงกรณ์ ถนนพระราม4 ปทุมวัน กรุงเทพฯ  
10330 โทร 0-2256-4455 ต่อ 14,15 ในเวลาราชการ

ขอขอบคุณในการร่วมมือของท่านมา ณ ที่นี้

 <p>คณะแพทยศาสตร์ จุฬาลงกรณ์ มหาวิทยาลัย</p>	<p>เอกสารแสดงความยินยอมเข้า ร่วมในโครงการวิจัย</p>
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การวิจัยเรื่อง ความผูกพันเชิงลึกซึ่งและความรู้ ทักษะ และ การปฏิบัติ เกี่ยวกับพฤติกรรมทาง  
เพศของ

ผู้ป่วยมะเร็งปากมดลูก

วันที่ให้คำยินยอม วันที่.....เดือน.....พ.ศ. ....

ข้าพเจ้า นาย/นาง/นางสาว

.....

ที่อยู่

.....

.....ได้อ่านรายละเอียดจากเอกสารข้อมูลสำหรับผู้เข้าร่วมโครงการวิจัยที่แนบมาฉบับวันที่  
..... และข้าพเจ้ายินยอมเข้าร่วมโครงการวิจัยโดยสมัครใจ

ข้าพเจ้าได้รับสำเนาเอกสารแสดงความยินยอมเข้าร่วมในโครงการวิจัยที่ข้าพเจ้าได้ลง  
นาม และ วันที่พร้อมด้วยเอกสารข้อมูลสำหรับผู้เข้าร่วมโครงการวิจัย ทั้งนี้ก่อนที่จะลงนามในใบ  
ยินยอมให้ทำการวิจัยนี้ข้าพเจ้าได้รับการอธิบายจากผู้วิจัยถึงวัตถุประสงค์ของการวิจัย ระยะเวลา  
ของการทำวิจัย วิธีการวิจัย อันตรายหรืออาการที่อาจเกิดขึ้นจากการวิจัย รวมทั้งประโยชน์ที่จะ  
เกิดขึ้นจากการวิจัย และแนวทางรักษาโดยวิธีอื่นอย่างละเอียด ข้าพเจ้ามีเวลาและโอกาสเพียงพอ  
ในการซักถามข้อสงสัยจนมีความเข้าใจอย่างดีแล้ว โดยผู้วิจัยได้ตอบคำถามต่าง ๆ ด้วยความเต็ม  
ใจไม่ปิดบังซ่อนเร้นจนข้าพเจ้าพอใจ

ข้าพเจ้ามีสิทธิที่จะบอกเลิกเข้าร่วมในโครงการวิจัยเมื่อใดก็ได้โดยไม่จำเป็นต้องแจ้ง  
เหตุผล และการบอกเลิกการเข้าร่วมการวิจัยนี้ จะไม่มีผลต่อการรักษาโรคหรือสิทธิอื่น ๆ ที่ข้าพเจ้า  
จะพึงได้รับต่อไป

ผู้วิจัยรับรองว่าจะเก็บข้อมูลส่วนตัวของข้าพเจ้าเป็นความลับ และจะเปิดเผยได้เฉพาะเมื่อ  
ได้รับการยินยอมจากข้าพเจ้าเท่านั้นบุคคลอื่นในนามของบริษัทผู้สนับสนุนการวิจัย คณะกรรมการ

พิจารณาจริยธรรมการวิจัยในคนอาจได้รับอนุญาตให้เข้ามาตรวจและประมวลข้อมูลของผู้เข้าร่วมวิจัย ทั้งนี้จะต้องกระทำไปเพื่อวัตถุประสงค์เพื่อตรวจสอบความถูกต้องของข้อมูลเท่านั้น โดยการตกลงที่จะเข้าร่วมการศึกษานี้ข้าพเจ้าได้ให้คำยินยอมที่จะให้มีการตรวจสอบข้อมูลประวัติทางการแพทย์ของผู้เข้าร่วมวิจัยได้

ผู้วิจัยรับรองว่าจะไม่มีการเก็บข้อมูลใด ๆ ของข้าพเจ้าเพิ่มเติม หลังจากที่ข้าพเจ้าขอยกเลิกการเข้าร่วมโครงการวิจัยและต้องการให้ทำลายเอกสารและ/หรือ ตัวอย่างที่ใช้ตรวจสอบทั้งหมดที่สามารถสืบค้นถึงตัวข้าพเจ้าได้

ข้าพเจ้าเข้าใจว่า ข้าพเจ้ามีสิทธิที่จะตรวจสอบหรือแก้ไขข้อมูลส่วนตัวของข้าพเจ้าและสามารถยกเลิกการให้สิทธิในการใช้ข้อมูลส่วนตัวของข้าพเจ้าได้ โดยต้องแจ้งให้ผู้วิจัยรับ

ข้าพเจ้าได้ตระหนักว่าข้อมูลในการวิจัยรวมถึงข้อมูลทางการแพทย์ของข้าพเจ้าที่ไม่มีการเปิดเผยชื่อ จะผ่านกระบวนการต่าง ๆ เช่น การเก็บข้อมูล การบันทึกข้อมูลในระบบบันทึกและในคอมพิวเตอร์ การตรวจสอบการวิเคราะห์ และการรายงานข้อมูลเพื่อวัตถุประสงค์ทางวิชาการ รวมทั้งการใช้ข้อมูลทางการแพทย์ในอนาคตหรือการวิจัยทางด้านเภสัชภัณฑ์ เท่านั้น

ข้าพเจ้าได้อ่านข้อความข้างต้นและมีความเข้าใจดีทุกประการแล้ว ยินดีเข้าร่วมในการวิจัยด้วยความเต็มใจ จึงได้ลงนามในเอกสารแสดงความยินยอมนี้

.....ลงนามผู้ให้ความ

ยินยอม

(.....) ชื่อผู้ยินยอมตัว

บรรจง

วันที่ .....เดือน.....พ.ศ.....

ข้าพเจ้าได้อธิบายถึงวัตถุประสงค์ของการวิจัย วิธีการวิจัย อันตราย หรืออาการไม่พึงประสงค์หรือความเสี่ยงที่อาจเกิดขึ้นจากการวิจัย รวมทั้งประโยชน์ที่จะเกิดขึ้นจากการวิจัยอย่างละเอียด ให้ผู้เข้าร่วมในโครงการวิจัยตามนามข้างต้นได้ทราบและมีความเข้าใจดีแล้ว พร้อมลงนามลงในเอกสารแสดงความยินยอมด้วยความเต็มใจ

.....ลงนามผู้ทำวิจัย  
(.....) ชื่อผู้ทำวิจัย ตัว

บรรจง

วันที่ .....เดือน.....พ.ศ.....

.....ลงนามพยาน  
(.....) ชื่อพยาน ตัวบรรจง  
วันที่ .....เดือน.....พ.ศ.....

### แบบสอบถาม

คำชี้แจง โปรดทำเครื่องหมาย  ลงบนช่อง  ด้านขวาและเติมข้อความลงใน ....  
ตามความเป็นจริง

1. เพศ

หญิง

ชาย

2. อายุของท่านขณะนี้คือ ..... ปี

3. ศาสนา

พุทธ

คริสต์

อิสลาม

อื่นๆ โปรดระบุ.....

4. ท่านได้รับการศึกษาสูงสุดในระดับใด

ไม่ได้รับการศึกษา

ประถมศึกษา

มัธยมศึกษาตอนต้น

มัธยมศึกษาตอนปลาย/ปวส

อาชีวศึกษา/อนุปริญญา

ปริญญาตรี

สูงกว่าปริญญาตรี

อื่นๆ โปรดระบุ.....□

5. สภาพภาพการทำงานในขณะนี้ของท่านคือ

- ทำงานเต็มเวลา
- ทำงานไม่เต็มเวลา
- ปลดเกษียณแล้ว
- ลาป่วย
- ไม่ได้ทำงาน

6. รายได้ทั้งหมดต่อเดือนของครัวเรือนของท่านมีจำนวนเท่าใด

- น้อยกว่า 10,000
- 10,000 – 29,999
- 30,000 – 49,999
- 50,000 – 79,999
- 80,000 – 100,000
- มากกว่า 100,000 ขึ้นไป

7. ท่านมีบุตรหรือไม่ (ทั้งบุตรแท้และบุตรบุญธรรม)

- ไม่มี
- มี จำนวน.....คน

8. ท่านและคู่สมรสคนปัจจุบันแต่งงานกันมาเป็นระยะเวลากี่ปี (นับจากวันแต่งงานถึงวันที่ทำแบบสอบถาม)

- น้อยกว่า 5 ปี
- 5 – 9 ปี



10 – 20 ปี

21 – 30 ปี

31 ปี ขึ้นไป

9. ระยะเวลาจากวันที่ท่านถูกวินิจฉัยว่าเป็นมะเร็งปากมดลูก **ครั้งแรก** จนถึงวันที่ทำแบบสอบถามนี้คือ

..... ปี..... เดือน

10. ท่านเป็นมะเร็งปากมดลูกในระยะใดในปัจจุบัน (วันที่ทำแบบสอบถาม)

ระยะที่ 2

ระยะที่ 3

อื่นๆ โปรดระบุ.....

11. ท่านได้รับการรักษามะเร็งปากมดลูกโดยวิธีใด (ตอบได้มากกว่า 1 ข้อ)

ฉายรังสี

เคมีบำบัด (ทำคีโม)

การรักษาเสร็จสิ้นไปแล้ว  เป็นเวลา.....เดือน

12. ตั้งแต่ได้รับการรักษามะเร็งปากมดลูกที่โรงพยาบาลจุฬาฯ ท่านมีความพึงพอใจกับการให้บริการการรักษาจากโรงพยาบาลจุฬาฯมากเท่าใด

ไม่เลย

เพียงเล็กน้อย

ปานกลาง

ค่อนข้างมาก

มาก

13. ตั้งแต่ท่านทราบว่าท่านป่วยเป็นมะเร็งปอกมดลูก ท่านคิดว่ากำลังใจที่ได้จากคู่รักหรือญาติหรือเพื่อนสนิทอยู่ในระดับใด

- |          |                          |
|----------|--------------------------|
| ดีมาก    | <input type="checkbox"/> |
| ดี       | <input type="checkbox"/> |
| เฉยๆ     | <input type="checkbox"/> |
| ไม่ดี    | <input type="checkbox"/> |
| ไม่ดีมาก | <input type="checkbox"/> |

## Part 2: Questionnaire for assessing intimacy

คำชี้แจง กรุณาทำเครื่องหมาย ✓ ลงในช่อง ที่ตรงกับความคิดเห็นหรือความรู้สึกของท่านมากที่สุด  
ในแต่ละข้อ (เลือกเพียงหนึ่งช่องในแต่ละข้อ)

	ไม่เคย	นานๆครั้ง	บางครั้ง	บ่อยๆ	ตลอดเวลา
1. คู่ครองของคุณรับฟังคุณในยามที่คุณต้องการคุยกับใครสักคน อย่างเช่น เพื่อปรับทุกข์หรือระบายความในใจ					
2. คุณพอใจกับกิจกรรมทางเพศและการมีเพศสัมพันธ์ของคุณ					
3. คู่ครองของคุณสามารถรับฟังความรู้สึกของคุณได้โดยปราศจากความรู้สึกต่อต้านหรือไม่พอใจเมื่อรับรู้ถึงสิ่งที่คุณบอก					
4. คุณรู้สึกว่ากิจกรรมทางเพศระหว่างคุณและคู่ครองเป็นเพียงกิจวัตรที่ซ้ำซาก					
5. คุณสามารถบอกให้คู่ครองของคุณทราบว่าความต้องการมีเพศสัมพันธ์ในเวลาที่คุณมีอารมณ์ทางเพศ					
6. คู่ครองของคุณสามารถเข้าใจถึงความทุกข์และความสุขต่างๆของคุณได้					
7. คุณต้องยับยั้งความรู้สึกทางเพศของคุณเพราะว่าคู่ครองทำให้คุณรู้สึกแย่ถ้าคุณบอกให้เขา					

ทราบว่าความต้องการมีเพศสัมพันธ์กับเขา					
8. คุณรู้สึกว่าคุณจะละเลยหรือทอดทิ้งคุณ					
9. การแสดงออกทางเพศ (อย่างเช่นการมีเพศสัมพันธ์ การกอด หรือ จูบ) ถือว่าเป็นสิ่งสำคัญในชีวิตของคุณ					
10. ในบางเวลา คุณรู้สึกเหงาหรือโดดเดี่ยวถึงแม้ว่าคุณจะไม่ได้อยู่คนเดียว แต่มีคู่ครองอยู่เป็นเพื่อน					
11. คู่ครองของคุณดูเหมือนไม่มีความต้องการทางเพศ					

## Part 3: KAP Questionnaire

ตอนที่ 1: แบบวัดความรู้เกี่ยวกับมะเร็งปากมดลูก

คำชี้แจง กรุณาทำเครื่องหมาย  ลงใน  ที่ตรงกับความคิดเห็นหรือความรู้สึกของท่านมากที่สุด  
ในแต่ละข้อ

	ใช่	ไม่ใช่
1. การที่ผู้ป่วยมะเร็งปากมดลูกทำกิจกรรมทางเพศหรือมีเพศสัมพันธ์จะเป็นอันตรายต่อสุขภาพ		
2. มะเร็งสามารถติดต่อผ่านทางเพศสัมพันธ์ได้		
3. การมีเพศสัมพันธ์สามารถทำให้โรคมะเร็งปากมดลูกที่หายแล้วกำเริบได้		
4. การมีเพศสัมพันธ์อาจจะทำให้โอกาสการหายจากโรคมะเร็งปากมดลูกลดลง		
5. ผู้ป่วยมะเร็งปากมดลูกอาจจะต้องเผชิญกับปัญหาเกี่ยวกับการมีเพศสัมพันธ์ อย่างเช่น เจ็บปวดระหว่างหรือหลังจากการมีเพศสัมพันธ์ มีความต้องการทางเพศและความสุขจากการมีเพศสัมพันธ์ลดลง มีน้ำหล่อลื่นในช่องคลอดลดลงและช่องคลอดตีบ		
6.สามีของผู้ป่วยมะเร็งปากมดลูกอาจจะต้องเผชิญกับปัญหาเกี่ยวกับการมีเพศสัมพันธ์ อย่างเช่น มีความต้องการทางเพศลดลง กลัวหรือรู้สึกผิดที่จะขอมีเพศสัมพันธ์กับภรรยา และได้รับการตอบสนองทางเพศจากภรณยาน้อยลง		
7. การมีเพศสัมพันธ์กับผู้หญิงที่เป็นมะเร็งปากมดลูก อาจส่งผลทำให้คู่นอนฝ่ายชายเกิดปัญหาทางสุขภาพได้ อย่างเช่นการติดเชื้อ		
8. ปัญหาที่เกี่ยวข้องกับความสามารถในการมีเพศสัมพันธ์และสมรรถภาพทางเพศที่ลดลงสามารถบำบัดรักษาได้		

ตอนที่ 2: แบบวัดทัศนคติของการประกอบกิจกรรมทางเพศในผู้ป่วยมะเร็งปากมดลูก

คำชี้แจง กรุณาทำเครื่องหมาย ✓ ลงในช่อง ที่ตรงกับความคิดเห็นหรือความรู้สึกของท่านมากที่สุด  
ในแต่ละข้อ

	ไม่เห็น ด้วย อย่างยิ่ง	ไม่เห็น ด้วย	ไม่แน่ใจ	เห็นด้วย	เห็นด้วย อย่างยิ่ง
1. คุณคิดว่าการที่คุณป่วยเป็นมะเร็งปากมดลูกมีผลทำให้คุณและคู่ครองไม่สามารถทำกิจกรรมทางเพศได้อย่างเคย					
2. เมื่อคุณมีอาการทางเพศ หรือทำกิจกรรมทางเพศ คุณรู้สึกวโรคมะเร็งปากมดลูกเป็นอุปสรรคในการทำกิจกรรมทางเพศ หรือ ทำให้คุณรู้สึกผิดหรืออึดอัดใจ					
3. คุณคิดว่าการคุยกันอย่างเปิดเผยกับคู่ครองในเรื่องของความต้องการทางเพศเป็นสิ่งที่ดี					
4. คุณไม่กล้าที่จะปฏิเสธการมีเพศสัมพันธ์กับคู่ครองถึงแม้ว่าคุณจะไม่ได้อยากมีเพศสัมพันธ์ก็ตาม					
5. คุณสบายใจและไม่ได้รู้สึกอึดอัดใจที่จะปรึกษาหารือเรื่องปัญหาการมีเพศสัมพันธ์กับคู่ครอง					
6. ผู้หญิงที่ป่วยเป็นโรคมะเร็งปากมดลูกไม่ควรที่จะทำกิจกรรมทางเพศ					

7. เพศสัมพันธ์ถือว่าเป็นสิ่งสำคัญในชีวิตแต่งงานของคุณ					
8. การบำบัดรักษาโรคมะเร็งได้ส่งผลเสียต่อความสามารถในการทำกิจกรรมทางเพศของคุณและคู่ครอง					
9. คุณกลัวว่าโรคมะเร็งจะติดต่อผ่านการมีเพศสัมพันธ์					
10. บุคลากรทางการแพทย์ควรให้ข้อมูลเกี่ยวกับปัญหาความสามารถในการมีเพศสัมพันธ์ที่ลดลง ที่อาจเป็นผลข้างเคียงจากโรคมะเร็งปากมดลูกและการบำบัดรักษาแก่ผู้ป่วยและสามี					
11. ถ้าเป็นไปได้ คุณจะเลือกการบำบัดรักษาที่ยืดอายุของคุณได้นานที่สุด มากกว่าที่จะเลือกการบำบัดรักษาที่จะส่งผลเสียต่อความสามารถในการมีเพศสัมพันธ์น้อยที่สุด					
12. ผู้ป่วยมะเร็งปากมดลูกไม่มีความรู้สึกลัวทางเพศ					

ตอนที่ 3: แบบวัดพฤติกรรมทางเพศ

คำชี้แจง กรุณาทำเครื่องหมาย  ลงใน  ที่ตรงกับความคิดเห็นหรือความรู้สึกของท่าน ในช่วงเวลา 2 เดือนที่ผ่านมา มากที่สุดในแต่ละข้อ

1. คุณมีเพศสัมพันธ์ประมาณกี่ครั้งต่อเดือน (เพศสัมพันธ์หมายถึงกิจกรรมทางเพศที่มีการใช้อวัยวะเพศชายสอดใส่ช่องคลอดของฝ่ายหญิง)

- |                         |                          |
|-------------------------|--------------------------|
| ไม่มีเลย                | <input type="checkbox"/> |
| 1 – 2 ครั้ง             | <input type="checkbox"/> |
| 3 – 4 ครั้ง             | <input type="checkbox"/> |
| 5 – 6 ครั้ง             | <input type="checkbox"/> |
| 7 – 10 ครั้ง            | <input type="checkbox"/> |
| 11 ครั้งหรือมากกว่านั้น | <input type="checkbox"/> |

2. คุณและคู่ครองได้ใช้วิธีอื่นที่ไม่ใช่การมีเพศสัมพันธ์ในการตอบสนองความต้องการทางเพศ เนื่องจากความยากลำบากหรือการไม่สามารถมีเพศสัมพันธ์ได้เพราะมะเร็งปากมดลูก

- |        |                          |               |
|--------|--------------------------|---------------|
| ใช่    | <input type="checkbox"/> | โปรดระบุ..... |
| ไม่ใช่ | <input type="checkbox"/> |               |

3. มีบางครั้งที่กิจกรรมทางเพศของคุณและครองต้องหยุดชะงักกลางคันเพราะว่าสภาพร่างกายหรือสภาพจิตใจของคุณหรือของคู่ครองที่ไม่พร้อม

- |        |                          |
|--------|--------------------------|
| ใช่    | <input type="checkbox"/> |
| ไม่ใช่ | <input type="checkbox"/> |



4. คู่ครองของคุณเคยปฏิเสธที่จะมีเพศสัมพันธ์กับคุณ

ใช่

ไม่ใช่

5. คุณและคู่ครองได้มีการคุยกันอย่างเปิดเผยเกี่ยวกับเรื่องทางเพศ

ใช่

ไม่ใช่

## Biography

Name Muandao Kongwanarat

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