ผลของโปรแกรมการส่งเสริมสมรรถนะแห่งตนตามแผนพัฒนาสาธารณสุขต่อความรู้เจตคติและทักษะการปฏิบัติตนของมารดาหลังคลอด

The Effects of Self-efficacy Promoting Program according to the Public Health Development Plan on Knowledge, Attitude and Practice of Postpartum Women

จิรัชญา เหล่าคมพฤฒาจารย์*[1] ธิติรัตน์ เหล่าคมพฤฒาจารย์[2] จิรภา วิลาวรรณ[1] โสวัตร พันธุ์ชาลี[3]

Jiratchaya Laokhompruttajarn*[1] Thitirat Laokhompruttajarn[2] Jirapa Wilawan[1] Sowat Puncharee[3]

[1]คณะพยาบาลศาสตร์ มหาวิทยาลัยราชภัฏชัยภูมิ, ชัยภูมิ, ประเทศไทย, 36000

[1]Faculty of Nursing, Chaiyaphum Rajabhat University, Chaiyaphum, Thailand, 36000

[2]คณะรัฐศาสตร์ มหาวิทยาลัยราชภัฏชัยภูมิ, ชัยภูมิ, ประเทศไทย, 36000

[2]Faculty of Political Science, Chaiyaphum Rajabhat University, Chaiyaphum, Thailand, 36000

[3]โรงพยาบาลชัยภูมิ, ชัยภูมิ, ประเทศไทย, 36000

[3]Chaiyaphum Hospital, Chaiyaphum, Thailand, 36000

บทคัดย่อ

การศึกษาครั้งนี้มีวัตถุประสงค์เพื่อศึกษาผลของโปรแกรมการส่งเสริมสมรรถนะแห่งตนตามแผนพัฒนาสาธารณสุขต่อความรู้ เจตคติและทักษะการปฏิบัติตนของมารดาหลังคลอด เป็นการวิจัยกึ่งทดลอง กลุ่มตัวอย่างเป็นมารดาครรภ์แรกที่มารับบริการฝากครรภ์ คลอดและติดตามสุขภาพทารกหลังคลอดที่โรงพยาบาลชัยภูมิ แบ่งออกเป็นกลุ่มทดลองและกลุ่มควบคุม กลุ่มละ 30 คน รวมจำนวน 60 คน เครื่องมือการวิจัย ประกอบด้วย โปรแกรมการส่งเสริมสมรรถนะแห่งตน แบบสอบถามข้อมูลส่วนบุคคล แบบสอบถามความรู้ ทัศนคติและทักษะการปฏิบัติตนของมารดาหลังคลอด ผ่านการตรวจสอบความตรงโดยผู้เชี่ยวชาญและทดสอบความเชื่อมั่นด้วยวิธี KR20 และอัลฟาของครอนบาค ได้ค่าความเชื่อมั่น เท่ากับ .80, .80 และ .79 ตามลำดับ วิเคราะห์ข้อมูลด้วยสถิติความถี่ ร้อยละ ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน Chi-square, Paired sample t-test และ Independent sample t-test

ผลการศึกษา พบว่า มารดาครรภ์แรก กลุ่มทดลองมีคะแนนเฉลี่ยความรู้ เจตคติและทักษะการปฏิบัติตนหลังคลอดในการดูแลตนเองและการดูแลทารกแรกเกิด ดีขึ้นกว่าก่อนการทดลองและดีขึ้นกว่ากลุ่มควบคุม อย่างมีนัยสำคัญทางสถิติ ($p < .01$). ดังนั้นโปรแกรมการส่งเสริมสมรรถนะแห่งตนตามแผนพัฒนาสาธารณสุข สามารถปรับเข้ากับกิจกรรมการดูแลตนเองเพื่อพัฒนาความรู้ เจตคติและทักษะการปฏิบัติตนของมารดาครรภ์แรกหลังคลอดได้อย่างมีประสิทธิภาพ

คำสำคัญ: โปรแกรมการส่งเสริมสมรรถนะแห่งตน ความรู้ เจตคติ ทักษะการปฏิบัติตน มารดาหลังคลอด

Corresponding Author: *Email: jungera2520@gmail.com

วันที่รับ (received) 12 พ.ย. 2564 วันที่แก้ไขเสร็จ (revised) 2 เม.ย. 2565 วันที่ตอบรับ (accepted) 10 เม.ย. 2565

Abstract

The objective of this research to study the effects of the self-efficacy promoting program according to the public health development plan on knowledge, attitudes, and practice of postpartum women. This is quasi-experimental research. The participants consisted of women who received the first antenatal care, gave birth, and followed up on an infant's postpartum health at Chaiyaphum Hospital. The participants were divided into the experimental group and the control group with 30 people in each group and a total of 60 people. Research instruments were the self-efficacy promoting program, personal information questionnaire, and a questionnaire on knowledge, attitude, and practice of postpartum women, which were tested on validity by experts and reliability by KR20 and Cronbach's alpha. The value of reliability of the measurements were .80, .80, and .79, respectively. The data were analyzed by descriptive statistic, including frequency, percentage, mean, standard deviation, and inferential statistics, including Paired sample t-test, and independent sample t-test.

The research result showed that postpartum women who received the first antenatal care in the experimental group had the average score on knowledge, attitude, and practice of postpartum self-care and newborn care higher than before the trial and higher than the control group with statistical significance ($p < .01$). From the findings, health care provider should make self-efficacy promoting program on knowledge, attitude and practice in postpartum women every one since trimester pregnancy in pregnancy department and postpartum department to encourage mothers to have the ability to care for themselves and their babies effectively.

Keywords: Self-efficacy promoting program, knowledge, attitude, practice, postpartum women

Introduction

The postpartum period is considered to be an essential period to develop a practice to be a mother. In particular, women who have a first child would face various changes in physical and mental states, self-care, and newborn care.[1] To become a mother, women must acquire knowledge and skills to take care of themselves and newborns. The proper postpartum practices will help postpartum women to deal with problems and may facilitate them to prepare to be a mother well according to the situation.[2] Based on the study on problems of self-care and newborn care of postpartum women, it was found that the main cause of problems was a lack of knowledge, confidence, and experience in caring for oneself and infants as well as a lack of help and well preparation before giving birth.[3,4] According to such problems, the public health development plan provided a public health policy on Maternal and Child Health which had been in the Fifth National Health Development Plan (B.E. 2012-2016) to the Twelfth National Health Development Plan (B.E. 2017-2021), focusing on the health care of pregnant women, postpartum women and children to be healthy with a proper implementation.[5] This is consistent with the concept of Bandura's perceived self-efficacy,[6] explaining that individuals will perceive self-efficacy when they face an unfamiliar situation. As a result, they would not confident to act. Perceived self-efficacy can be developed through learning resources in four areas: 1) Performance Accomplishments, 2) Vicarious Experience, 3) Social Persuasion, and 4) Physiological and Emotional States. This is in line with Rosenberg's concept of attitude,[7]

explaining that individuals can alter attitudes from knowledge, feelings, and experiences that are conveyed by those who have experience.

The postpartum ward at Chaiyaphum Hospital provided a program on health education to women after giving birth, and this program has been continuously improved until now. However, due to the limitation of beds, the location of the ward, and the number of postpartum women in 2017-2019, it was found that there were 1,602, 1,542 and 1,407 postpartum women, respectively. The average bedtime of women with a normal vaginal delivery was 1.95 days while women with Caesarean section was 2.90 days.[8] As the period of 1-2 days after giving birth is the time when women are still tired from giving birth, they are not ready in physical state. Therefore, it may affect learning process and lead to inefficient practice.

Thus, the researcher would like to compare knowledge, attitude and practice of postpartum women before and after participating the self-efficacy promoting program of Chaiyaphum Hospital. Therefore, research findings can be used as a guideline to develop and improve the self-efficacy promoting program of postpartum women.

Research Objectives

To study the effects of the self-efficacy promoting program according to the public health development plan on knowledge, attitudes, and practice of postpartum women.

Research hypothesis

After the experiment, postpartum women who received the first antenatal care in the experimental group had the average score on knowledge, attitude, and practice of postpartum self-care and newborn care higher than before the trial and higher than the control group.

Research conceptual framework

In this research, the program was developed using the standard of advice to the postpartum mothers of the postpartum wards. Chaiyaphum Hospital and Bandura's perception of self- efficacy.[6] The conceptual framework is presented in Figure 1.

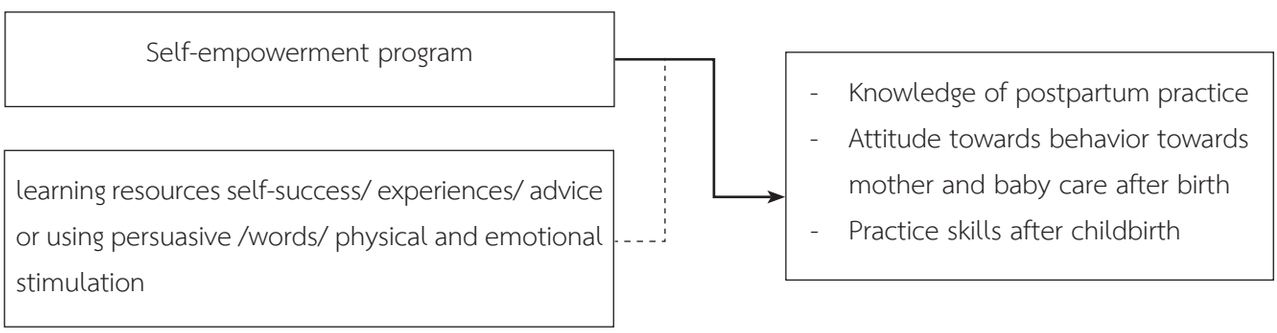

Figure 1 Conceptual framework

Methodology

This quasi-experimental research has two groups with pre-and post-measurement. The data collection was conducted at Chaiyaphum Hospital from December 2020 to March 2021.[8] The sample size was based on Cohen's method[9], cited from the previous studies[4,10,11]. The finding that there was a large effect size of 4.18 and 1.95, respectively. Therefore, a large effect size was .80. Power of test .80. An error was .05, and this is a one-sided hypothesis test. Then, look into Polit & Beck's table.[12] As a result, there were 25 people in each group with a total of 50 people. In

this research, the activity was carried out as a group. If some participants withdraw and new participants were recruited later, this will affect the activity. Therefore, the researcher selected a sample size of 60 people by specifying inclusion criteria were as follows: 1) the first-time mother and first child, 2) 20 years of age or older, 3) inexperienced in caring for newborns up to 1 year, 4) No chronic diseases or complications during pregnancy, 5) being able to read, write and speak in Thai, 6) living with infants as a caregiver and 7) willing to participate in the research. The participants were divided into the experimental group and the control group with 30 people in each group by draw lots.

Research Instruments

The instruments in this research are divided into 2 parts as follows:

Part 1: The instrument in the trial was the self-efficacy promoting program of postpartum women, which was developed from advice to postpartum women of the postpartum ward in Chaiyaphum Hospital,[8] and Bandura's concept of perceived self-efficacy[6] under the concept of promoting self-efficacy from learning sources in 4 areas with activities as follows: (1) Health education was provided as follows mother's self-care on relaxation, sleep, diet, breast care, body care, care for perineal lacerations and a sexual organ, daily routine, physical exercise, sexual intercourse, and observing abnormal symptoms and newborn care on physical care, identifying abnormal symptoms and promoting development. (2)Self-care practices include breast massage for milk production, breast cleaning and milk collection, sexual organ cleaning, the proper use of sanitary napkins, physical exercises, and newborn care skills, such as changing diapers, swaddling, post-cleaning defecation, bathing, wiping the eyes and wiping the navel. (3) Follow-up visits were done on the first day and the second day after givingผ birth. (4) Follow-up visits after giving birth were done when going home through telephone 4 times on week 1, 2, 4, and 6.

Part 2: A questionnaire created by the researcher with 4 sections as follows:

1) Personal information consists of age, educational background, occupation, family income and family types with 5 items as a multiple-choice and fill-in form.

2) A questionnaire on knowledge of postpartum women created by the researcher includes relaxation and sleep, diet, breast care, body care, care of perineal lacerations and a sexual organ, daily routine, physical exercise, sexual intercourse and identifying abnormal symptoms with a total of 40 items as a true or false test. A correct answer gets 1 point while an incorrect answer gets 0 points.

3) A questionnaire on attitude towards postpartum self-care includes attitude towards self-care and newborn care with a total of 20 items as a 5-scale assessment including strongly agree, agree, neither agree, nor disagree, disagree and strongly disagree. Criteria for interpretation are the highest level (4.51-5.00), a high level (3.51-4.50), a moderate level (2.51-3.50), a low level (1.51-2.50), and the lowest level (1.00-1.50).[13]

4) A questionnaire on practice of self - care and newborn care is as follows: 1)Mother's practices are breast massage for milk production, breast cleaning and milk collection, sexual organ cleaning, the proper use of sanitary napkins, physical exercises with a total of 25 items. 2) Newborn care practices are carrying infants, changing diapers, swaddling, post-cleaning defecation, bathing, wiping the eyes, and wiping the navel with a total of 25 items. A correct practice gets 1 point while incorrect practice gets 0 points. Criteria for interpretation are a poor level (1.00-2.00 points), a fair level (2.01-3.00 points),

and a good level (3.01-4.00 points).[14]

5) Recommendations from the sample and professional nurses as the open-ended questionnaire.

The quality of research instruments.

The self-efficacy promoting program was tested for content validity by 5 experts with an index of item objective congruence (IOC) of .60 - .80, and then used in 10 women who received the first antenatal care with similar qualifications to the sample. The value of reliability by KR20 and Cronbach's alpha coefficient of the measurements on knowledge, attitude, and practice of postpartum women were .80, .80, and .79, respectively.

Ethical consideration

This study was approved by the Human Research Ethics Committee of Chaiyaphum Hospital, dated 10 November 2020 (No. 10/63). The sample group informed about the research objectives, methods, potential risks, benefits of participation and rights to discontinue involvement in the study. They were able to withdraw from the study at any time without penalty or loss of benefits. The information in this study is anonymous and will be kept confidential.

Data analysis

Data analysis consisted of: 1) Personal data which were analyzed by frequency, percentage, mean and standard deviation. 2)The comparison of the average score on knowledge, attitude, and practice before and after participating the self-efficacy promoting program by Paired sample t-test, and between the experimental group and the control group by Independent sample t-test.All statistical significances were set at $p < .05$. 3) Recommendations from the open-ended questionnaires by content analysis. The content analysis was based on the approach of the important concept[15,16,17].

Findings

1. Regarding personal information of the experimental group and the control group, it was found that the mean age was 23.62 years old (SD = 4.38) and 22.69 years old (SD = 4.16), respectively. The primary education was 56.67% and 53.33 %, respectively. Participants having occupations were 55% and 56.67%, respectively. The average household income of 20,150 baht per month and 19,850 baht per month, respectively. Extended families were 53.33% and 56.67%, respectively. When comparing personal information between the experimental group and the control group by chi-square, it was found that there were no statistically significant differences. When testing the difference in age, education level, occupation, gross family income per month and family characteristics of the sample between the control group and the experimental group by Fisher's Exact test and Chi-square test, there were no differences.

2. The comparison of the average score on knowledge, attitude, and practice before and after participating the self-efficacy promoting program, and between the experimental group and the control group, there were statistically significant differences ($p < .001$). The test of preliminary agreement of the data distribution was normal at a significant level of .05 using the Kolomogorov-Smirnov statistic. It was found that all variables had normal distribution. as shown in Table 1.

Table 1 The comparison of the average score on knowledge, attitude, and practice on postpartum women

Item	n	$\bar{X}$	S.D.	Mean Difference	t	95%CI	p–value
Knowledge							
Within the groups							
- Pre-trial	30	25.45	2.35	3.28	20.11	2.93–3.63	< .001*
- Post-trial	30	36.50	2.05				
Between the groups							
- Pre-trial	30	36.05	2.05	4.04	5.26	2.48–5.66	< .001*
- Post-trial	30	26.55	2.03				
Attitude							
Within the groups							
- Pre-trial	30	3.95	.43	8.21	9.288	6.30–10.12	< .001*
- Post-trial	30	4.55	.22				
Between the groups							
- Pre-trial	30	4.45	.39	4.42	2.235	0.35–8.50	< .001*
- Post-trial	30	3.85	.50				
Practices							
Within the groups							
- Pre-trial	30	2.75	.64	5.57	8.654	8.68–14.46	< .001*
- Post-trial	30	3.35	.49				
Between the groups							
- Pre-trial	30	3.40	.29	3.86	3.867	6.30–10.12	< .001*
- Post-trial	30	2.85	.82				

Table 1 was presented the regarding knowledge, attitude and practices of self-care and newborn care, it was found that after participating in the program, the experimental group had a higher average score than before participating in the program with statistical significance. ($p < .001$). In addition, when comparing the average score on knowledge, attitude and practices of self-care and newborn care between the experimental group and the control group, there were statistically significant differences ($p < .001$).

3. The recommendations from the open-ended questionnaires by content analysis. An example of a content analysis is shown in Table 2.

Table 2 The part of recommendations from the sample by content analysis

Group of words	Relationships	Keywords
- The activities for mothers during pregnancy until after giving birth. - The maternal care activities during pregnancy and after childbirth. - The preparing mothers both during pregnancy and after childbirth.	part of	The activities for mothers
- There are follow-up and continuously evaluation activities. - Follow up every week at least once a week - Follow up weekly for up to 6 months	part of	monitoring and evaluation
- The activities that emphasize of postpartum mothers and families - Mothers and families are involved in determining activities. - The participation of postpartum mothers and their families.	part of	The emphasize & participation

Table 2 was presented the regarding recommendations for program development and improvement from the sample and professional nurses, it was found receiving antenatal care near and after giving birth requires family participation continuously.

Discussions

For personal data of the sample, participants in the experimental group and the control group were aged between 23 - 35 years, mostly in primary school. Farmer had an average family income of 19,850 - 20,150 baht per month and had an extended family. When comparing personal data differences in the experimental and the control groups, it was found to have similar properties. For the general information of the participants of the experimental group and the control group, it was found that in early adulthood which is an age with intellectual development powerful a first-born mother with normal childbirth. As a result, information can be perceived well and effectively. This consistency with the previous studies18. The general characteristics of the experimental group consisted of 30 people, aged 20 - 34 years old. The general information of the experimental group was found to be in early adulthood. There was a powerful cognitive change and the brain was fully developed and had a relatively good level of education which results in being able to recognize various information well.

After the trial, participants in the experimental group had knowledge on postpartum practices better than before the trial and better than the control group. This may be because the self-efficacy promoting program, developed by the researcher, can encourage women who received the first antenatal care and lacked experience in caring for themselves and newborns after giving birth to have desired behavior. This is consistent with Bandura's concept,[6] explaining that promotion of a high level of perceived self-efficacy can result in people having good self-care practices. This consistency with the previous studies[19,20]. The participants in the experimental group had the average score on knowledge readiness before distribution higher than the control group with statistical significance of .001.

After the trial, participants in the experimental group had knowledge on attitude on postpartum practices better than before the trial and better than the control group. This may be because the self-efficacy promoting program had a variety of activities along with information, counseling, advice, praise,

acceptance, and promotion of the ability of postpartum practices with family and relatives as good supportive sources. This is consistent with the concept of Zimbardo, Ebbesen & Maslach,[21] explaining how attitude change is based on knowledge, understanding and experience gained both directly and indirectly from husbands, parents, siblings, and close relatives. Thus, when participants in the experimental group had good knowledge of postpartum practices, their attitudes will be improved. This consistency with the previous studies[10,22]. The average score of postpartum women on attitude towards postpartum practices before receiving the health education program was 19.6 while the average score of postpartum women on attitude towards postpartum practices after receiving the health education program was 26.25. When testing the statistical difference, it was found that the average score on attitude after receiving the program increased with a statistical significance of .01.

After the trial, participants in the experimental group had the average score on practices of self-care and newborn care better than before the trial and better than the control group. This may be because the self-efficacy promoting program employed a learning process through multimedia, practical training, continuous monitoring, phone calls, and home visits to inquire information from postpartum women and their families. This resulted in behavior change in a better way. This is related to the concept of Ajzen & Fishbein,[23] explaining that doing activities on your own and finding answers from experts are considered to be a cumulative skill, leading to confidence, success in previously performed activities, and appropriate practices. This consistency with the previous studies[4,24,25]. The participants in the experimental group had the average score on practices of self-care and newborn care better than participants in the control group with statistical significance ($t = 5.010$, $p < .001$ and $t = 1.811$, $p < .05$, respectively).

The highlight of the program was it focuses on organizing activities in accordance with the public health development plan and the participation of postpartum mothers, including continuous monitoring and evaluation, resulting in effective results.

Conclusion

The self - efficacy promoting program according to the public health development plan can be effectively applied to prepare readiness of knowledge, attitude, and practice of women who received the first antenatal care after giving birth.

Suggestion

1. Suggestions for applying the research results: the self-efficacy promoting programs should be adapted to maternity and postnatal care activities, for example, to diversify gestational parents' school teaching styles and have effective assessments.

2. Suggestions for further research: to study the use of the self-efficacy promotion program in caring for mothers and newborns in other groups such as mothers with complications of internal medicine older mothers and single mothers.

References

1. World Health Organization. Counselling for Maternal and Newborn Health Care: A Handbook for Building Skills. Geneva; 2013.
2. Fahey,J. O., & Shenassa, E. Understanding and meeting the needs of women in the postpartum period: The perinatal maternal health promotion model. Journal of Midwifery & Women's Health. 2017; 58(6): 613-621.

3. Mokhtari F., Bahadoran P., Baghersad Z. Effectiveness of postpartum homecare program as a new method on mothers' knowledge about the health of the mother and the infant. Iranian Journal of Nursing and Midwifery. 2018; 23(4):316.
4. Chonlatankampanat W., Khanobdee C., Pongrua P. The Effects of a self-efficacy promoting program on self-care behaviors and newborn care behaviors of first-time mothers. Journal of Phrapokklao Nursing College. 2018; 29(1): 29-41. (in Thai)
5. Planning Division, Department of health. strategic planning. Development of a health promotion system and environmental health according to the National health development: plan during the National Economic and social development plan No. 12 (2020-2022). Revised edition. Graphic and design publishing house, Bangkok; 2020. (in Thai)
6. Bandura, A. Self-efficacy: The exercise of control. New York: W.H. Freeman; 1997.
7. Rosenberg, M. J. Inconsistency arousal and education in attitude change. New York: Hot Rinehart and Winstom; 1965.
8. Chaiyaphum Hospital. Annual report, postpartum ward, fiscal year 2020, Chaiyaphum: Chaiyaphum Hospital; 2020. (in Thai)
9. Cohen, J.M., Uphoff, N.T. Participations place in rural development: seeking clarity through specificity. New York: World Developments; 1980.
10. Sirijanya P., Adsapan R. The effects of health education program on knowledge and practice in postpartum women, Chonburi hospital. (Research reports), Chonburi: Chonburi hospital, 2017; 1-13. (in Thai)
11. Tharana N., Thanasirichiranont R. Effects of Enhancing self-efficacy program on perceive self-efficacy, knowledge and satisfaction in breastfeeding among first-time post-partum mothers. (Research reports), Chiang Mai: Payap University, 2019; 32-50. (in Thai)
12. Polit, D.F. ,Tatano Beck, C. Nursing Research. Generating and Assessing Evidence for Nursing Practice. Wolters Kluwer Health, Philadelphia.; 2017.
13. Srisaard B. Statistical Methods for Research, Volume 1 (5th Edition). Bangkok: Suwiriyasan; 2013. (in Thai)
14. Likert, Rensis. The method of constructing and attitude scale. Reading in attitude. Theory and Measurement. Fishbeic, Matin, Ed. New York; 1967.
15. Dudovskiy, J. Apple Value Chain Analysis. Research Methodology; 2018.
16. Moser, A. , Korstjens, I. Series: practical guidance to qualitative research. Part 1: Introduction. European Journal of General Practice. 2017; 23(1): 271-273.
17. Intaprom W. Analysis and presentation of qualitative data analysis. Academic Journal Phranakhon Rajabhat University, 2019;10(2): 314–333. (in Thai)
18. Srisukwan D., Matgate W., Nichaiyok N. The effects of health education program on knowledge and practice in postpartum woman, Krathumbaen hospital. Maharat Nakhon Si Thammarat medicine. 2021; 3(2): 37-42. (in Thai)
19. Saelor C. , Saeun M. Effect of knowledge teaching program on readiness for hospital discharge among first – time mothers after cesarean section. (Research reports), Suratthani: Suratthani Hospital, 2019; 1-12. (in Thai)

20. Klaikerd C., et al. Effectiveness of postpartum maternal education model using Information technology. (Research reports), Nakhon Pathom: Nakhon Pathom Rajabhat University, 2019; 597-804. (in Thai)
21. Zimbardo, P. G. , Ebbesen, E. B., Maslach. Influencing attitudes & changing behavior (2nd ed.) reading, MA: Addison Wesley; 1977.
22. Chumjit S. Self care behavior of postpartum primigravida Health Promoting Hospital, The 5th Regional Health Promotion Center, Ratchaburi. (Research reports), Ratchaburi: Health Promoting Hospital, The 5th Regional Health Promotion Center, 2020; 1-23. (in Thai)
23. Ajzen, I., Fishbein, M. Understanding attitudes and predicting social behavior. Englewood-Cliffs;1980.
24. Manokarn C., Buaphut S. The relationship of empowerment and postpartum self-care behavior of teenage mother. Journal of the Royal Thai Army Nurses. 2020; 21(3): 98-108. (in Thai)
25. Munro S, Hui A, Salmons V, Solomon C, Gemmell E, Torabi N, et al. Smart Mom text messaging for prenatal education: a qualitative focus group study to explore Canadian women's perceptions. JMIR Public Health Surveill. 2017;3(1):e7.