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Factors influencing childbearing intention among married women of reproductive age in Bueng Kan Province

Somkid Wesabanpot[1], Kritkantorn Suwannaphant[2*], Supat Assana[2]

[1]Master of Public Health student, Sirindhon College of Public Health, Khon Kaen, Faculty of Public Health and Allied Health Sciences, Praboromarajchanok Institute, Thailand
[2]Lecturer, Sirindhorn College of Public Health, Khon Kaen, Faculty of Public Health and Allied Health Sciences, Praboromarajchanok Institute, Thailand

*Corresponding author: Dr. Kritkantorn Suwannaphant, kritkantorn@gmail.com

ABSTRACT

Background: Globally, the total fertility rate (TFR), the average of births per woman has declined from 3.2 in 1990 to 2.3 in 2020. There have been at least 23 countries whose population has decreased by 50%, including Thailand. Bueng Kan Province is one of Thai provinces experiencing the decline of birth rates. In 2012, there were 5,341 newborns, and the number decreased to 3,093 in 2021.

Objectives: This cross-sectional study aimed to investigate the factors influencing childbearing intention among married women of reproductive age in Bueng Kan Province.

Methods: A total of 298 married women were selected by systematic random sampling process. A structured questionnaire was used. Descriptive statistics and multiple logistic regression were used to determine the magnitude of childbearing intention and associated factors. The association was described with an Adjusted Odds Ratio (AOR) and 95% Confidence Interval (95% CI) at the statistically significant level of p-value< 0.05.

Results: The findings revealed that 20.81% (95 % CI: 16.33-25.86) of the sample intended to have children in the future. The factors influencing childbearing intention among married women of reproductive age were monthly income (AOR= 3.23, 95%CI: 1.23-8.42, p-value 0.016), and positive attitudes towards childbearing (AOR= 3.41, 95%CI: 2.27-5.11, p-value <0.001).

Conclusion: According to the results, income and positive attitudes play an important role in deciding to have children. Thus, government policies of childbearing should be established in order to promote fertility. Encouraging people to have positive attitudes towards childbearing should also be involved.

Keywords: Childbearing intention, Married women of reproductive age, Positive attitudes towards childbearing

1. Introduction

Global fertility rates tend to have constantly declined. In 1950, a woman had an average of 4.7 children in her lifetime [1]. From 2000 to 2020, the maternal mortality ratio (MMR, number of maternal deaths per 100,000 live births) approximately dropped by 34% worldwide [1]. According to GBD 2017 Population and Fertility Collaborators (1950-2017), total fertility rates (TFR) decreased by 49.4% (95% uncertainty interval [UI] 46.4-52.0). An average of births decreased from 4.7 live births (4.5-4.9) to 2.4 live births (2.2-2.5), and the specific fertility rates of mothers aged 10–19 years decreased from 37 live births (34-40) to 22 live births (19-24) per 1000 women [2]. In 2021, Thailand experienced the dramatic decline of fertility in history. The number of births (544,570 births) was lower than the number of deaths (563,650 deaths) in the same year [3].

Bueng Kan province has also experienced a continuing decline of birth rates since 2012. The number of newborns, at that time, was 5,341, and steadily fell to 3,093 in 2021. Thus Bueng Kan population was represented as constrictive pyramids that shows a lower proportion of young population resulted from a decrease of birth rates, especially the working age group [4].

Due to the decrease of Thailand's fertility rates, the government has taken this into account by introducing measures to encourage people to have children as can be seen from the National Reproductive Health Development Policy and Strategy (2017-2026) proposed by the Ministry of Public Health. Although several measures to support childbearing have been provided, the fertility rate of Thailand has not increased.

This study aimed to focus on factors influencing childbearing intention among married women of reproductive age in Bueng Kan province, where a decline of birth rates occurred. Also, Bueng Kan's population has become an aging society as the country has. The research findings can be the threshold to promote married women of reproductive age to have more children in order to prevent "childless aging society".

2. Methods

2.1 Study Area

This study was conducted in Bueng Kan province, Thailand, from December 2022 to July 2023.

2.2 Study Design

A cross-sectional analytical study was conducted among married women of

reproductive age (20-49 years) in Bueng Kan province, Thailand.

2.3 Sample size and sampling

The population of this study were 60,293 married women of reproductive age (20-49 years) in Bueng Kan. The sample were married women of reproductive age (20-49 years) who lived in Bueng Kan province, Thailand [4]. Sample size was calculated on the basis of multiple logistic regression analysis formula [5]. Finally, 298 married women were selected using multi-stage sampling.

2.4 Data Collection

A structured questionnaire was used to gather data. The content validity of the questions was evaluated by three experts (0.89) [6]. The data collection procedures were as follows:

2.4.1 Preparation

1) Entered the research site and planned to collect data.

2) Requested for the permission letter to collect data, issued by Sirindhorn College of Public Health, Khon Kaen.

2.4.2 Data collection

1) Organized the session to explain the data collection process to volunteers who helped collecting the data, and how participants answer a questionnaire accurately.

2) Provided the suitable place without interruption in order to make participants feel free to answer a questionnaire.

3) Asked the participants to answer a questionnaire and inform them about human subject's protection. After participants gave consent to enter the research, researchers and volunteers proceeded to collect data.

2.4.3 Post-data collection

1) Re-checked whether data were complete. If there appeared incomplete data, those were separated and additional data collection was done.

2) Coded data and re-checked whether data were complete.

3) Analyzed and interpreted the results.

2.5 Data Analysis

Demographic information of participants e.g., age, age at first marriage, wife or husband's age, education level, occupation, number of children, monthly household income, monthly household expenses, savings, debts, home ownership were presented as frequency and percentage (categorical variables) and mean and standard deviation (continuous variables).

Simple logistic regression and multiple logistic regression were used to analyze data, presented by crude and adjusted odds ratios (AOR) with 95% confidence intervals (95% CI). To obtain AOR, independent variables were tested, their individual association with childbearing intention variables in bivariate model first, and then those variables with a less than 0.25 p-value were included in the multivariable model. Backward elimination was used as the method for variable selection for the final model. All statistical analyses were performed by using Stata software version 13.0 (Stata Corp, College Station, TX). The p-value less than 0.05 were considered as statistically significant.

2.6 Ethical Clearance

This study was approved by the human research committee of Sirindhorn College of Public Health Khon Kaen, Faculty of Public Health and Allied Health Sciences, Praboromarajchanok institute. Thailand (Reference No. HE661006)

3. Results

3.1 Demographic information of participants

The findings found that participants had average age of 37 years (S.D.±8.24). Maximum age was 49 years and minimum age was 20 years. Average age at first marriage was 23 years (S.D.±5.1): the maximum was 39 years, and the minimum was 15 years. Average husband/wife's age was 40 years (S.D.±9.23): the maximum was 56 years, and the minimum was 19 years. Education levels of participants, mostly were a high school and vocational certificate level (36.91%), and there were 176 people whose occupation was an agriculturalist (59.06%). 159 participants had 2 children, which was the maximum number of children they had, including a baby during pregnancy (53.36%). Their monthly household income on average was 18,158 baht (max: 90,000, min: 5,000), and monthly household expenses were 14,531 baht (max: 70,000, min: 4,000). Most of participants had their savings accounting for 80.54%; however, most of their families owed a debt on legal loans (76.51%). They also had their own houses and lands (56.38%), and most of them had medical services with the universal health coverage (81.54%).

3.2 Childbearing Intention

The results showed that 236 participants did not want to have children, which accounted for 79.19%, and 62 participants intended to have children, accounting for 20.81% (shown in Table 1).

Table 1: Number of participants and percentage of childbearing intention among married women of reproductive age in Bueng Kan province, Thailand. (n=298)

Childbearing Intention	Number	%
Want	62	20.81
Don't want	236	79.19

3.3 Perceptions of government policies and support of childbearing

Most of participants showed the highest perceptions on government policies and support of childbearing in terms of providing milk and food budget for children aged 2-5 years, who were at a childcare centre under local administrative organization (61.08%). Secondly, perceptions on budget of milk, food, books, school supplies, and student uniforms for children from kindergarten to Mathayom 6 or vocational certificate (level 3) accounted for 53.35%. Lastly, perceptions on government policies and support of childbearing showed lack of awareness. Participants did not know about Baan Pracharat Project, which is subsidized housing for low-income households and freelancers (83.55%). The project offers subsidies for not exceeding 1,500,000 baht. Another government support was tax deductions. The spouse's expenses can be used for tax deductions. A spouse who is unemployed can make tax deductions for 60,000 baht, and a married couple who both have income can make tax deductions for 120,000 baht (80.54%).

3.4 Access to childcare services/childcare center

The results indicated that participants could access childcare services and childcare center at a highest level. There was a childcare center taking care of children aged 2-5 years, and a childcare center of sub-district provided necessary facilities for children, accounting for 77.52% and 70.14%, respectively. Participants showed the lowest level on a childcare center located between home and parent's workplace (20.80%), followed by a childcare center of sub-district located near safe environment (far from a river and main road) with strong construction (9.06%).

3.5 Attitudes towards childbearing intention

Most of participants showed the highest level of positive attitudes towards childbearing. They found that children can fulfil a family (79.53%), and children increase intimacy between a married couple (77.85%). In contrast, participants who showed negative attitudes on having children perceived it as a waste of time for socialization (38.26%), and

having children reduces working time and restricts career development (27.18%).

3.6 Factors influencing childbearing intention among married women of reproductive age (Bivariate analysis)

The results showed that factors influencing childbearing intention among married women of reproductive age in Bueng Kan province, Thailand which included age of the respondents (OR= 7.68, 95%CI: 3.87-15.23, p-value <0.001), age of husband or wife (OR=7.86, 95%CI: 3.89-17.25, p-value <0.001), family monthly income (OR=1.72, 95%CI: 0.77-3.86 , p-value 0.167), family savings OR=0.56, 95%CI: 0.29-1.06: p-value 0.085), perceptions of government policies and support of childbearing (OR=2.04, 95%CI: 1.06-3.90, p-value 0.026), access to childcare services/childcare centre (OR=1.91, 95%CI: 1.08-3.37, p-value 0.024), attitudes towards childbearing intention (OR=8.69, 95%CI: 4.17-18.11, p-value <0.001) (Table 2).

Table 2: Factors influencing childbearing intention among married women: Bivariate analysis (n=298)

Factors	n (298)	% Childbearing Intention	Crude OR	95%CI	P-value
Age (Years)					<0.001
≥35	165	7.27	1		
<35	133	37.59	7.68	3.87-15.23	
Ages at first marriage (Years)					<0.001
≥20	206	12.62	1		
<20	92	39.13	4.45	2.47-8.00	
Age of wife or husband (Years)					<0.001
≥40	135	5.93	1		
<40	163	33.13	7.86	3.59-17.25	
Educational level					0.760
Bachelor's degree or more	108	19.05	1		
Under bachelor's degree	190	21.09	1.14	0.50-2.60	
Occupational					0.850
No	122	21.31	1		
Yes	176	20.45	0.95	0.54-1.67	
Number of children					0.051
<2	92	10.87	1		
≥2	206	23.79	1.90	0.97-3.70	
Family monthly income (Baht)					0.167
< 30,000	56	14.29	1		
≥ 30,000	242	22.31	1.72	0.77-3.86	

Factors	n (298)	% Childbearing Intention	Crude OR	95%CI	P-value
Family monthly expenses (Baht)					0.275
≤ 22,000	52	15.38	1		
> 22,000	246	21.95	0.84	0.42-1.66	
Savings					0.085
No	58	29.31	1		
Yes	240	18.75	0.56	0.29-1.06	
Debts					0.849
No	70	20.00	1		
Yes	228	21.05	1.07	0.54-2.08	
Home ownership					0.004
No	130	28.46	1		
Yes	168	14.88	0.44	0.25-0.78	
Healthcare services					0.190
Other health care services	55	14.55	1		
Universal coverage	243	22.22	1.68	0.75-3.77	
Perceptions of government policies and support of childbearing intention level					0.026
Low to medium	102	13.73	1		
High	196	24.49	2.04	1.06-3.90	
Access to childcare services/childcare centre level					0.024
Low to medium	158	15.82	1		
High	140	26.43	1.91	1.08-3.37	
Attitudes towards childbearing intention					<0.001
Negative	260	15.00	1		
Positive	38	60.53	8.69	4.17-18.11	

3.7 Factors influencing childbearing intention among married women of reproductive age (Multivariable analysis)

The factors influencing childbearing were family monthly income (AOR=3.23, 95%CI: 1.24-8.42, p-value 0.016) and attitudes towards childbearing intention (AOR=3.41, 95%CI: 2.27-5.12: p-value <0.001) (shown in Table 3).

Table 3: Factors influencing childbearing intention among married women: (Multivariable analysis) (n=298)

Factors	n (298)	% Childbearing Intention	Crude OR	AOR	95%CI	P-value
Family monthly income (Baht)						0.016
< 30,000	56	14.29	1	1		

Factors	n (298)	% Childbearing Intention	Crude OR	AOR	95%CI	P-value
≥ 30,000	242	22.31	1.72	3.23	1.24-8.42	
Attitudes towards childbearing intention						<0.001
Negative	260	15.00	1	1		
Positive	38	60.53	8.69	3.40	2.27-5.12	

*AOR = Adjusted odds ratio

4. Discussion

The results indicated that participants who intended to have children in the future accounted for 20.81% and participants who did not want to have children in the future accounted for 79.19%. The findings were related to Kanokwara Phuangprayoung's study [7]. The previous showed that 18.8% of married women wanted to have children, and married women aged 15-19 years wanted to have children in the future, accounting for 44.1%. Similarly, the results of Kanokwara Phuangprayoung's study were related to Maryam Moeeni, Arash Rashidian, and Akbar Aghajanian (2018) [8] that showed 37.5% of women intending to have more children. In contrast, Julawan Sukanan, Chokchai Munsawaengsub, Sutham Nantha-mongkolchai, and Supachai Pitikultang (2020) [9] revealed that married women of reproductive age who decided to have children accounted for 78.7% and who decided not to have children accounted for 21.3%. The two previous studies were different due to different ages of the sample, different cultures, and different locations (Bueng Kan and Nakhon Si Thammarat).

The factors influencing childbearing intention among married women of reproductive age in Bueng Kan province were family monthly income and attitudes towards childbearing intention. The sample who had family monthly income over 30,000 baht had 3.23 times greater intention to have children in the future as compared to the sample who had family monthly income less than 30,000 baht. Another factor, attitudes towards childbearing, showed that the sample with positive attitudes decided to have children in the future was 3.41 times greater than those who had negative attitudes.

In terms of family monthly income, it plays an important role in deciding to have children in the future. Moreover, decisions of childbearing depend on explicit and implicit opportunity cost and advantages of having children. This finding was also related to Satayu Pattarakijkusol and Anchana Naranong [9], the study shows that family support and household income have positive

effects on women's fertility intentions while marriage age and urbanization have negative effects on women's fertility intentions. And the finding were also related to Maryam Moeeni, Arash Rashidian,Akbar Aghajanian and Seyyedeh Sara Afrazandeh, Mahnaz Khosravi, Fateme Bahador, Zohreh Javanmard, Azam Sabahi (2024) [10], the study shows that with the attitude variable there was a statistically significant direct relationship.

5. Conclusion

This study revealed that factor influencing childbearing intention among married women of reproductive age in Bueng Kan province, Thailand was positive attitude towards childbearing. Participants who decided to have children in the future mostly aged 20-28 years. To encourage people to have children, it is essential to increase people's perceptions on government policies and support for childbearing, especially Baan Pracharat Project—subsidized housing for low-income households and freelancers, offering subsidies for not over 1,500,000 baht. For a married couple, the spouse's expenses can be used for tax deductions. A spouse who is unemployed can make tax deductions for 60,000 baht, and a married couple who both have income can make tax deductions for 120,000 baht. However, both government supports i.e., subsidized housing and tax deductions reached much less perceptions of people. In terms of childcare, a childcare centre with convenience and high security should be provided for children, and it should be located between home and parents' workplace. Additionally, a childcare centre of sub-district should be in suitable and safe environment with strong construction and boundaries that are far from a river and a main road. To encourage people to have more children, positive attitudes towards childbearing also plays an important role, so married women of reproductive age (aged 20-28 years) are needed to point out the advantages of having children i.e., children can fulfil a family, children increase intimacy between a married couple and children can take care of parents when they are aged.

Mix methods research (quantitative and qualitative approaches) can be conducted to reveal the factors influencing childbearing among married women of reproductive age by using a questionnaire and an in-dept interview. The revealed factors will be necessary information to create the comprehensive plans to promote childbearing in the future. Qualitative research will also help study the need

analysis of government policies on childbearing to establish the policies that meet the needs of target groups.

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