

DETERMINANTS OF CONTRACEPTIVE USE AMONG PEOPLE OF REPRODUCTIVE AGE IN PATTANI PROVINCE, THAILAND

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ABSTRACT: The study examined the situation regarding the use of contraception and the factors affecting contraceptive use in Pattani within the two cultures coexisting within the state, Muslim and Buddhist. The results found that 48% had used contraception at some time. Condoms were used the highest proportion (32.6%) as a method of birth control, then, contraceptive pills (30.6%), ejaculate outside vagina for contraception (15%), contraceptive injections (10.3%), emergency contraceptive pills (8%) and only 4% for rhythm method birth control (natural contraceptive method). Among the Buddhists about 60% had used contraception, while the figure among Muslims was around 40%. Condoms were the most popular method among Buddhists (35%) whereas among Muslims it was the contraceptive pill (25%). Binary logistic models were used to determine the factors explaining whether or not contraception was used. The first included only eco-demographic factors: the younger age, and lower income were more likely to use contraception than the older people, and higher income at $\alpha = 0.01$. In contrast, sex, education level, and occupation had no apparent influence on the use of contraception. When social characteristics were included, the status of the head of the household bore no relationship to contraceptive use. However, less number of people in the household, Buddhist, and the area of residence were strongly related to the use of contraception at $\alpha = 0.01$.

Keywords: Contraceptive use, Reproductive age

INTRODUCTION

The International Conference on Population (ICPD) and Development was organized by the United Nations, and held in Cairo, Egypt in September 1994. At that conference, representatives of the United Nations and its member countries discussed the linkage between population and development and the effect of population on the socio-economic development of nations, as well as on resources and the environment. The ICPD Programme of Action (POA) emphasized that all countries should strive to make reproductive health services available to all individuals of appropriate ages through their primary health care system as soon as possible and no later than the year 2015 [1].

Reproductive health services, were defined as including, inter alia, family planning counseling and the provision of information, education, and services relating to human sexuality, reproductive health and responsible parenthood; the provision of prenatal care, safe delivery and post-natal care, the provision of information relating to breast feeding and infant and women's health care; the prevention and appropriate treatment of infertility; the prevention of abortion and the management of the consequences of abortion; the treatment of reproductive tract infections, sexually transmitted

diseases (STDs) and other conditions involving reproductive health [1].

Addressing reproductive health care issues therefore continues to be a major issue for the government in Thailand but the programs introduced to date have proved to be inadequate to effectively meet the needs of people of prime reproductive age, for information and services related to reproductive health care. This has left people in Thailand exposed to undesirable health consequences such as the risk of acquiring sexually transmitted infections, including HIV, and people of reproductive age are disproportionately disadvantaged in terms of those consequences including the risk of unintended pregnancies which are often associated with poor outcomes such as miscarriage, stillbirth, unsafe abortion, and other complications likely to result in infant or maternal death [2]. In addition, the available evidence shows that most pregnancies in people of prime reproductive age in Thailand are unintended or mistimed and the use of family planning methods among this group remains low [3]. Previous research has found that fertility in Thailand is higher in the South than in other regions and within the South it now appears to be higher for Muslims than for Buddhists [4]. Both Buddhists and Muslims in the South have higher fertility preferences than couples in other regions although preferences appear to be even higher among Muslims of prime reproductive age than among

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Buddhists. However among both groups there is considerable interest in child spacing, more so than in other regions [5]. Although there appears to be less interest in limiting family size to 2 or 3 children than in the rest of Thailand, family size preferences are still below the levels that are likely to result from current fertility levels [6].

Contraception and the levels of unmet needs appears to be as high as elsewhere in Thailand among Southern Buddhists but below national levels among Southern Muslims. Contraceptive use is well below the national average among both Southern Buddhists and Muslims although more so among Muslims [7]. Most of the Thai population is Buddhist but a minority is Muslim. In contrast, the majority of the population in the Southern border provinces of the country is Muslim especially in Pattani. In these provinces more than 95 percent of the population is Muslim. Thai Muslims reside in every Southern province with the exception of Chumphon province. The majority of these Muslims are engaged in agricultural occupations. They have strong faith in the Islamic religion and adhere strictly to its principles as well as to the traditional practices peculiar to the Southern region. Islam makes direct prescriptions relating to fertility and family planning matters such as marriage including the philosophy of love, choosing a partner, sex restrictions, engagement, sexual intercourse, divorce, sex education, planning a family, birth control, abortion and sterilization [3].

The low rate of contraceptive use in the South is a direct result of the social norms and religious beliefs among the Muslims. Nevertheless, attitudes towards contraception appear to be generally favorable although there may be some underlying ambivalence especially in the Muslim community.

Contraception or family planning can be divided into two types: the temporary or reversible prevention of pregnancy and permanent measures to prevent pregnancy. Contraception is a useful way of postponing the time of having children, extending birth spacing, preventing physical harm to the mother and limiting children as a means of enhancing economic status. It is a crucial issue that needs to be understood by people in the South of Thailand because contraceptive use is not only a method of limiting children but is an important way of protecting women's health. Past research has found that people in the South of Thailand lack knowledge and understanding about family planning and contraceptive use [4]. The present study examined the situation as regards contraceptive use and the factors affecting contraceptive use by people in Pattani.

METHODOLOGY

Study Population, Study Design and Sample Size

The study was conducted in Pattani where the

majority of the population are ethnic Malay Muslims, who make up more than 90% of the population [3]. They speak a dialect of the Malay language peculiar to Pattani. The Malays of Pattani are very similar in ethnicity and culture to the Malays of Kelantan in Malaysia. Pattani was purposively chosen for this study because of its mixture of culture and religions. The study was conducted among people in the 15-49 years, reproductive age group. This study was primarily descriptive in nature. The aim was to estimate any given population parameter (e.g. contraceptive prevalence, whether people had ever used contraception, etc.) with a specified level of precision and confidence. The level of confidence was specified as 95% and the tolerable error margin was 5%. Several specifications of p (estimated prevalence) were made based on the study objectives. The sample size required to satisfy all the objectives was, based on an estimated proportion of 48% of the population who had at any time used contraception. The sample size expression for cross-sectional descriptive studies: $n = \frac{Z^2 P(1-p)}{d^2}$ was used to determine the necessary sample size and the figure arrived at was 323. The sample used in the study was drawn from equally from the Muslim and Buddhist communities, and from each group 110 females and 110 males were randomly selected, giving a total of 440 participants.

Data Collection and Analysis

All the interviewers who gathered data for the study were females and males living with their spouses. The questionnaire was pre-tested for comprehensibility, the appropriateness of language, and the sensitivity of the questions. The interviewers obtained the consent of each respondent. The data were analyzed using binary logistic regression to examine the determinants of contraceptive use among people of reproductive age in Pattani, Thailand. The logistic regression model, which derives its name from the logistic probability function [8], was used to analyze the effect of the dependent variable, which in this study was dichotomous, where contraceptive use was coded as 1 and non contraceptive use as 0. Age, income, the number of members in the household and the number of the respondent's children were treated as continuous variables, while education level and occupation were treated as ordinal variables. All the analyses were carried out at the 5% level of significance [9].

RESULTS

Of the participants, 50% were female and 50% were male of whom 50% were Muslim and 50% were Buddhist. The mean age of the participants was 34.30 years, the maximum age was 49 years and the

Table 1 Odds ratio of Determinants of Contraceptive Use

Variables	Model 1		Model 2	
	OR	95% CI	OR	95% CI
Eco-Demographic characteristics				
Female	1.323	0.870 to 2.013	1.174	0.756 to 1.825
Age	0.968**	0.946 to 0.990	0.956**	0.932 to 0.982
Education (ref. Primary and lower)				
Secondary	0.847	0.508 to 1.412	0.692	0.406 to 1.181
Bachelors degree and over	1.270	0.684 to 2.359	0.744	0.379 to 1.460
Occupation (ref. Not working)				
Agriculture	0.382	0.143 to 1.016	0.477	0.173 to 1.314
Non agriculture	1.079	0.638 to 1.825	1.451	0.824 to 2.557
income	1.230**	1.220 to 1.300	1.342**	1.330 to 1.380
Social characteristics				
Status of head of household	-----	-----	1.156	0.916 to 1.460
No. of member in household	-----	-----	0.833**	0.727 to 0.954
Buddhist	-----	-----	1.910**	1.227 to 2.974
Non municipal area	-----	-----	0.454**	0.282 to 0.732
-2 Loglikelihood		570.905		541.167
Degrees of freedom		7		11
Pseudo R ²		0.099		0.180

Note: *P < 0.05, **P < 0.01, ***P < 0.001

minimum was 18 years. 48% of the participants had completed secondary level education and 43% were living in the household as the spouse. Their mean income was 150,269 Baht a year and the maximum income was 580,000 Baht with the minimum income being 6,000 Baht. Most of the participants had 4 or 5 members in their households and 46% had 1 or 2 children.

Of the total sample, 48% had used contraception at some time. Among the Buddhists about 60% had used contraception, while the figure among Muslims was around 40%. Condoms were the most popular method among Buddhists (35%) whereas among Muslims it was the contraceptive pill (25%). These methods were believed to be the most appropriate methods for protecting against pregnancy. The binary logistic model was used to determine the factors explaining whether or not contraception was used. The values shown in Table 1 are odds ratios; values greater than one indicate a greater likelihood of contraceptive use. Two different regression models were used to examine people's contraceptive use in Pattani. The first included only eco-demographic factors: sex, age, education, occupation and income and within these variables, females, with primary and lower education and not working were adopted as reference groups. The second binary logistic model additionally included, social characteristics pertaining to the status of the head of the household and the number of people in the household, with the Muslim religion and municipal area of residence as the reference groups. The first model showed that older people were less likely to use contraception than younger people ($\alpha = 0.01$) based on an odds ratio (OR) of 0.968, with a confidence interval of 0.946-

0.990. Based on income level, it was found that people with higher incomes were 1.2 times more likely to use contraception than those with lower incomes ($\alpha = 0.01$) with a confidence interval for the OR of 1.220-1.300. In contrast, sex, education level, and occupation have no apparent influence on the use of contraception.

When social characteristics were included in the second model, it was found that the status of the head of the household had no relationship to contraceptive use. However, the number of people in the household, religion, and the area of residence were strongly related to the use of contraception. People in households with lower numbers of people were 16.7% less likely to use contraception than those from households with higher numbers ($\alpha = 0.01$) based on an OR of 0.833 and a confidence interval of 0.727-0.954. Buddhists were 1.9 times more likely to use contraception than Muslims ($\alpha = 0.01$) with a confidence interval of 1.227- 2.974 and people who lived in non-municipal areas were 54.6% less likely to use contraception than those in municipal areas. However, the effect of some control variables (e.g. sex, age, secondary education level, occupation, and income) did not change when the social characteristics variables were added to the model.

CONCLUSION AND DISCUSSION

Access to contraceptives is the most effective direct intervention available to lower fertility. This study shows that the proportion of people in Pattani who had used contraception at any time was low although the extent to which contraception is used to protect against pregnancy is greater than in the past. Both eco-demographic and social factors are

determinants of contraceptive use. The study used micro-level data derived from a reproductive health survey of people in Pattani to examine their use and non-use of contraception. Two maximum-likelihood logistic models were used to examine the determinants of contraceptive use. The results show that social characteristics, such as the number of people in a household, their religion and area of residence are strongly significantly related to contraceptive use, with Buddhists, people from larger households and those living in municipal areas more likely to use contraceptives. Moreover, younger age is a strong determinant of contraceptive use with younger people more likely to use contraception because those of younger age tend to be more fertile which makes contraception more valuable to them and this in turn increases contraceptive use.

The rate of contraceptive use found in this study was 48%. This is similar to the 44% reported about three decades ago from the South of Thailand in 1988 [10] but is higher than the 38% which was found in 1983 in the South of Thailand [11]. The study found that people in Pattani were now more likely to use contraception and that they tended to accept birth control as a means of regulating their fertility. Contraception use was not only employed for reasons of birth control but also to safeguard women's reproductive health [12]. Moreover, contraception use was employed as a protective measure against sexually transmitted diseases [13].

Insofar as age group differentials are indicators of historical trends it is very likely that fertility differentials in Thailand by broad religious categories will continue to diminish [13]. This of course is dependent upon convergence between religious categories in the number of children desired. Nonetheless, the data indicates that religion remains a factor in contraceptive use, and when comparing Muslims and Buddhists in Pattani, more Buddhists were found to use contraception than Muslims. The more religious Islamic people were, based on these results, more likely to adhere to the traditional teachings of their religion, for instance preferring to have a lot of children and not using contraception [14]. However, income, number of children and area of residence influenced contraceptive use, with higher income, higher number of children, and residence in a municipal area positively associated with contraceptive use. However these factors may be the result of the lower use of contraception with some people facing economic burdens and health problems because of ignorance of the use of contraception [13].

The study showed that the main influence on the use of contraception is religion, especially Islam. Although income and number of children influenced contraceptive use, religion was the strongest determinant of contraceptive behavior. Clearly, religious groups can play a vital role in the

promotion of family planning and similar initiatives to promote reproductive health in the province. Therefore, future studies should consider directly questioning respondents as to their beliefs regarding religious approval of various contraceptive behaviors. Also in future studies, religious norms and practices such as frequency of mosque attendance, number of prayers, and participation in mosque activities should be directly measured to help clarify the relative effects of religious norms on reproductive behavior. Further, there is the need for historical data to help overcome the limitations of cross-sectional data and to assess divergence or convergence in contraceptive use among different religious groups and different segments of the population.

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