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Predictors of Men's Acceptance of Modern Contraceptive Practice: Study in Rural Vietnam

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Keywords

Predictors, Men, Acceptance, Modern, Contraceptive, Practice, Study, Rural, Vietnam

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Predictors of Men's Acceptance of Modern Contraceptive Practice: Study in Rural Vietnam

Bui Thi Thu Ha, Rohan Jayasuriya, and Neville Owen

Keywords: Intrauterine devices (IUD); male involvement; transtheoretical model; stages of change; decisional balance; self-efficacy

Abstract

Objective: Studies have shown family planning adoption is likely to be more effective for women when men are actively involved. The transtheoretical model of behavior change was used to examine men's involvement in general contraception and intrauterine device (IUD) use by their wives. The study was carried out in rural Vietnam with 651 eligible participants. Cons of IUD use for men in precontemplation and contemplation/preparation were significantly higher than those in the action/maintenance stages, whereas the reverse was true for pros of IUD. The self-efficacy for convincing wife to have IUD in precontemplation was significantly lower than for those in higher stages. Women's education and ages, spontaneous recall of modern contraceptive method, cons for IUD, and self-efficacy for contraception and for convincing wives to get IUD inserted (or continue use) were significant predictors of men's readiness to accept IUD. Interventions are targeted to reduce cons and increase self-efficacy for IUD use.

1. INTRODUCTION

In most traditional societies, men are the main decision makers in reproductive health matters, including family planning (Johansson, Nga, Huy, Dat, & Holmgren, 1998). Men are significantly involved in decision making on contraceptive use, and the degree to which they share the decision making with their wives can have a definite impact on contraceptive behavior (Bankole & Singh, 1998; Biddlecom, Casterline, & Perez, 1996; Salway, 1994). Regardless of whether the method is one in which the male partner participates most actively in its use (e.g., the condom) or whether the female partner participates most actively in its use (e.g., the intrauterine device [IUD]), men can play an important role in the method's use and effectiveness. In the latter case, male partner's approval can be an important predictor of contraceptive use by women (Joesoef, Baughman, & Utoma, 1988; Kamal, 2000; Lasee & Becker, 1997). Studies from several nations have shown that family planning programs are likely to be more effective for women when men are actively involved (Drennan, 1998).

Men's acceptance of contraceptive methods requires knowledge about appropriate contraceptive methods, more communication between partners, fostering awareness, and sharing concerns for their

partner's contraceptive practices (Green, 1994). Various studies have shown that providing men with information and involving them in counseling sessions can help them to be more supportive of contraceptive use and more aware of the concept of shared decision making (Wells, 1997). Tefere and Larson (1993) reported a study in Ethiopia that found an increase of contraceptive use among couples receiving husband-wife counseling compared to when women were counseled alone. Findings from a study in China suggest that husbands' involvement in the counseling process contributed to reduced rates of pregnancy and abortion among couples not using intrauterine devices (Wang, Hua, Yun, & Rong, 1998).

In Vietnam, a high contraceptive prevalence rate (CPR) of 73% has been attained. Nevertheless, about one fourth of couples use unreliable traditional methods such as periodic abstinence or withdrawal. The most common contraceptive method in Vietnam is the IUD, which accounts for 38% of the CPR. IUDs are provided free of charge in district commune health centers. To some extent, the IUD is the good choice for many people in rural areas where there is low exposure to STD/HIV/AIDS. This is due to its high effectiveness, convenience, and low costs (Treiman, Liskin, & Rinehart, 1995; Trussell, Leveque, Koenig, & London, 1995).

Studies in family planning have identified factors influencing men's acceptance of contraception, including couple communication, son preference, and fertility intention. Discussion between partners has been found to be an important explanatory factor in current contraceptive use (Drennan, 1998; Mahmood & Ringheim, 1997; Oni & McCarthy, 1991). From a family perspective, the first step in a rational process of fertility decision making involves communication between spouses. Such communication is likely to be an important precursor of lower desired family size and increased contraceptive use (Ezeh, 1993).

Son preference has deep cultural roots in many Asian countries such as Vietnam (Haughton & Haughton, 1995). Sons provide support for parents in old age and maintain the family line (Johansson *et al.*, 1998). Based on data from the Vietnam Living Standard Survey, Haughton and Haughton (1995) found contraceptive use rates lower for families that did not yet have a son. On the other hand, in Sri Lanka, this is not a substantial obstacle to fertility control (De Silva, 1992).

Fertility intention refers to whether the participant intended to have another child. Contraceptive use is more prevalent when couples want to limit childbearing and want to space children (Bongaarts, 1992). The husband's fertility intention is inconsistently reported in the literature. Salway (1994) found that husband's desire for no more children had no effect on contraceptive use, but Speizer (1999) reported it to be significantly related to contraceptive use even after controlling for women's desires.

Contraceptive use is an instance of healthy behavior, and its adoption requires behavior change. The transtheoretical model (TTM; also known as the stage of change [SOC] model) of health behavior change (Prochaska, Diclemente, & Norcross, 1992) has been tested as an approach to conceptualizing and assessing readiness to accept contraception (Galavotti *et al.*, 1995; Grimley, Prochaska, Velicer, & Prochaska, 1995; Schnell, Galavotti, Fisbein, & Chan, 1996; Stark *et al.*, 1998).

The TTM is the predominant model of health behavior that incorporates stage assumptions (Sutton, 2001). It incorporates different theoretical constructs drawn from other theories of behavior change.

SOC construct is the TTM's basic organizing principle and dependant variable (Prochaska et al., 1994). It has been argued that having a method to classify people to stages is not sufficient and that factors that predict change need to be identified to develop interventions to produce the desired change (Sutton, 2001).

In an earlier study, we found that husbands' acceptance of IUD use as a contraceptive method in a rural setting in Vietnam could be accounted for in terms of stages of change and related TTM constructs such as self-efficacy (Ha, Jayasuriya, & Owen, 2003). The purpose of this further study was to identify an extended range of factors associated with men's stages of change in the acceptance of IUD use. We were particularly concerned to identify factors that could be used to inform the development of interventions to progress contraceptive use in rural Vietnam.

2. METHOD

Interviewers, both male and female, were local village health workers and trained for 3 days on how to collect the data at a district health center. District health workers in charge of a family planning program participated in field supervision of data collection. They were responsible for field editing of questionnaires and validating completed interviews.

Interviewers identified 651 married men aged between 19 and 45 years who lived with their wives in the same house during the past 3 months in rural communes in An Hai district, Hai phong province, in the northeast of Vietnam. The inclusion criteria were that the wife was currently not pregnant, the couple did not plan to have a child in the next 6 months, they currently did not use condoms consistently for family planning, and the wives currently did not use pills consistently for family planning.

Trained local health workers conducted home visits to administer a face-to-face inter-view with each participant. Questions were read to the participants. The instrument was identical for all participants.

2.1 Measures

The questionnaire consisted of four main parts: sociodemographic characteristics, contraceptive knowledge, communication on family planning issues, and items assessing the three main constructs from TTM (stage of change for IUD use, decision balance [pros and cons], and self-efficacy for general contraception and IUD use).

Contraceptive knowledge was assessed by spontaneous recall of modern and traditional methods. Couple communication was examined by frequency of communication (low and high). The high communication referred to frequency of more than three times of discussion on family planning in 1 year preceding the survey. The low communication was less than that.

The social cognitive measures, decisional balance and self-efficacy, were adapted from an earlier study (Ha et al., 2003), where these were found reliable in Vietnam rural context. The perceived benefits (pros), costs (cons) of family planning, self-efficacy, and health workers' and villagers' views on men's perspectives on male involvement in family planning were taken into account when the

scales were developed and initially pilot tested for our earlier study. The scales elicited information concerning pros and cons (benefits and costs) and self-efficacy for IUD use (confidence in dealing with IUDs) developed in this study.

In brief, the scales consisted of pros for contraception and IUD use and cons for contraception and IUD use. Two self-efficacy scales were used, one for contraception and the other for IUD use. Each respondent was asked to rate a 5-point Likert-type scale (1 = *not important* to 5 = *very important*) on how important each statement was to his decision whether or not to use contraception and/or an IUD. The items for measuring advantages (pros) covered content such as protection from unwanted pregnancy, personal responsibility, the wife's positive reaction to the contraceptive method, and the promotion of the family's economic conditions. Items for measuring disadvantages (cons) of contraception included hassles associated with the contraceptive method, personal beliefs, difficulties associated with the family setting, financial costs, and decrease in sexual pleasure.

Items for self-efficacy were written in such a way as to assess the level of confidence of the respondent in specific situations (e.g., when the method is not available [right on hand], when "high" on alcohol or drugs, when the wife dislikes the method, when the method causes health or other problems for the wife). Response options ranged from 1 (*not at all confident*) to 5 (*extremely confident*). As there were two categories of respondents (those currently using IUD and those not using IUD), items were constructed to obtain a gradation of difficulties for each category. Items were written in such a way as to assess the level of confidence of the respondents in specific situations (e.g., when the method caused abdominal pain or bleeding). The Cronbach's coefficient of all scales varied from .78 to .9, which showed good internal consistency, except for cons for IUD use (Cronbach's coefficient was .6).

To assess men's acceptance of contraception, a four-item staging algorithm was used. These items were found to be reliable in previous studies (Galavotti *et al.*, 1995; Grimley *et al.*, 1995) and used in an earlier study with men in Vietnam (Ha *et al.*, 2003). Based on a single item asking for discrete responses to one of the five following statements, men were classified into five stages of readiness to accept IUD for contraception: precontemplation (not intending to use in next 6 months), contemplation (intending to accept in next 6 months), preparation (planning to accept in next 30 days), action (using IUD less than 6 months), and maintenance (using IUD for 6 months and longer).

2.2 Data Analysis

Data analysis was conducted using the Statistical Package for the Social Sciences (Version 10.0). The chi-square tests examined differences across stages of change by sociodemographic, contraceptive knowledge, and communication on family planning, whereas differences by perception toward contraception and IUD use were examined by multivariate analysis of variance (MANOVA) and if indicated, one-way analysis of variance (ANOVA) and post hoc Tukey tests. To carry out these tests, raw scores for pros and cons and self-efficacy were converted to a standardized score and to *T* scores ($M = 50$; $SD = 10$) (Grimley *et al.*, 1995). Multiple logistic regression models were employed to predict the factors significantly associated with men's being in the more advanced stages of change for IUD use.

3. RESULTS

The distribution of men's SOC shows that for IUD use, there are three main stages (Ha et al., 2003). The first transition (stage) compares men who lack intention to use IUD (who are in precontemplation) with those who are at the stages of intending to do so (contemplation and preparation). The second transition compares men in contemplation/ preparation to those who have achieved the relevant change (action/maintenance). More than one fourth of men (29.5%) were in the precontemplation stage, 10.6% of men were in the contemplation/preparation stage, and slightly less than two thirds of men were in the action/maintenance stage (59.9%).

The participants' mean age was 35.9. More than one third (34.6%) were aged 35 to 39 years; more than one fifth (22.0%) were either aged 30 to 34 or 40 to 44 years; less than one fifth (15.5%) were aged 25 to 29 years; and a small proportion (2.2%) were aged either 19 to 24 or 45 to 49 years.

More than half (60.5%) of the men had completed lower secondary education only; approximately one fourth (25.7%) had finished upper secondary education; few (7.5%) were primary educated only; and fewer (6.3%) had attained higher education. Approximately two thirds (61.8%) were farmers, less than one fifth (17.1%) had a government or private job, and a small proportion (2.5%) had other jobs.

3.1 Factors Associated With Men's Stages of Change to Accept IUD for Contraception

All variables (sociodemographic, knowledge, communication, and cognitive) were examined by stage of men's readiness to accept IUD for contraception. There were no significant relationships between age, education, and occupation to SOC ($p > .05$). There were significant relationships between stages of change for IUD for having a son and having an abortion ($p < .05$). Men in the action/maintenance stage were more likely to have wives who had not undergone abortion than those in lower stages (81.8% vs. 62.3% and 63.0%; $p < .05$). In contrast, men in the action/maintenance stage were more likely to have a son in the family than were those in the contemplation/preparation and the precontemplation stages (77.9% vs. 59.4% and 71.4%; $p < .05$; see Table 1).

In examining contraceptive knowledge and communication by stage of change for IUD use, men in action/maintenance and contemplation/preparation stages were significantly more likely to recall modern methods than men in precontemplation (96.9% vs. 95.7% and 87.5%). Men in action/maintenance were less likely to recall traditional methods (23.1% vs. 52.2% and 64.6%; $p < .05$) than were those in contemplation/preparation and precontemplation stages, respectively (Table 2).

Men in the action/maintenance stages were more likely to have low communication with wives than those in the other stages (82.6% vs. 65.2% and 72.9%; $p < .01$; Table 2).

The differences in decisional balance and self-efficacy across the stages of change replicated our earlier findings (Ha et al., 2003). The results of one-way ANOVA and Tukey post hoc test showed that men in the action/maintenance stage had significantly higher pros for IUD than those in precontemplation (51.4% vs. 47.3%), $F(2, 650) = 11.043$, $p < .05$. In contrast, men in the action/maintenance stage had significantly lower cons for IUD than those in the two other stages (47.6% vs. 52.3% and 54.0%), $F(2, 650) = 31.636$, $p < .05$.

Men in the action/maintenance stage had significantly lower self-efficacy for contraception (48.6% vs. 52.7%), $F(2, 650) = 10.747, p < .05$, than those in precontemplation. However, they had significantly higher self-efficacy for IUD than those in the other two stages (53.5% vs. 50.1% and 42.8%), $F(2, 650) = 95.487, p < .05$.

3.2 Independent Predictors of Men's Stages of Change to Accept IUD for Contraception

The first logistic regression model treated the contemplation/preparation versus precontemplation stage as the dependent variable. The second logistic regression model treated the action/maintenance stage versus contemplation/preparation as the dependent variable.

In both models, age, education, and occupation were controlled for. In the first logistic regression, Table 3, a model containing three variables provided the most parsimonious and significant fit to the data ($p < .001$). The significant independent variables were spontaneous recall of traditional method and self-efficacy for IUD.

Men in contemplation/preparation were 1.8 times more likely not to recall traditional methods than those in precontemplation stage (Odds Ratio [OR] = 1.8; 95% confidence interval 1.0 to 3.4; $p = .06$). Men in the contemplation/preparation stage were 0.8 times less likely to have low self-efficacy for IUD than those in the precontemplation stage (OR = 0.2; 95% confidence interval 0.1 to 0.4; $p = .00$). In the second logistic regression model (action/maintenance vs. contemplation/preparation), a model containing six variables provided a significant fit to the data ($p < 0.001$; see Table 4).

Men in the action/maintenance stage were 0.5 times less likely to have no son in the family than those in the lower stage (OR = 0.5; 95% confidence interval 0.3 to 0.9; $p = 0.02$). Men in the action/maintenance stage were 0.7 times less likely to have wives who had undergone abortion (OR = 0.3; 95% confidence interval 0.2 to 0.6; $p = .00$).

Men in the action/maintenance stage were 3.8 times more likely to not recall traditional contraceptive method than those in the contemplation/preparation (OR = 3.8; 95% confidence interval 2.0 to 6.9; $p = .00$). Those in the action/maintenance stage were 1.8 times more likely to have low communication with wives on family planning matters than those in the lower stage (OR = 1.8; 95% confidence interval 0.9 to 3.5; $p = .09$).

Men in the action/maintenance stage were 0.5 times less likely to have high cons for IUD than those in the lower stage (OR = 0.5; 95% confidence interval 0.3 to 0.9; $p = .03$), and similarly those in the action/maintenance stage were 0.7 times less likely to have low self-efficacy for IUD than those in the lower stage (OR = 0.3; 95% confidence interval 0.1 to 0.8; $p = .01$).

Table 1: Relationships Between Sociodemographic Factors and Stages of Change for Intrauterine Device (IUD) Use

Characteristics	Stage of Change for IUD Use (%)			p Value
	Precontemplation (n = 192)	Contemplation/ Preparation (n = 69)	Action/ Maintenance (n = 390)	

Age groups				
20 to 24	1.0	4.4	2.3	.20
25 to 29	13.0	20.3	15.9	
30 to 34	19.8	23.2	24.9	
35 to 39	34.9	36.2	34.1	
40 to 44	28.7	13.0	21.0	
45 to 49	2.6	2.9	1.8	
Education				
Primary	6.8	4.3	8.5	.10
Lower secondary	58.3	50.7	63.3	
Upper secondary	28.6	36.2	22.3	
Higher	6.3	8.8	5.9	
Occupation				
Government	18.8	20.3	14.4	.06
Private	16.7	18.8	16.9	
Farming	57.3	52.2	65.6	
Other	7.2	8.7	3.1	
Parity				
One	33.3	39.1	28.5	.20
Two	48.4	40.6	54.6	
Three	18.3	20.3	16.9	
Abortion				
No	63.0	62.3	81.8	.00
Yes	37.0	37.7	18.2	
Having a son				
No	28.6	40.6	22.1	.03
Yes	71.4	59.4	77.9	
Last birth wanted				
No	24.0	21.7	29.2	.20
Yes	76.0	78.3	70.8	
Desired children				
No	69.3	65.2	72.6	.30
Yes	30.7	34.8	27.4	

Table 2.: Relationships Between Knowledge, Communication, and Stages of Change for Intrauterine Device (IUD) Use

Characteristics	Stage of Change for IUD Use (%)			<i>p</i> Value
	Precontemplation (<i>n</i> = 192)	Contemplation/ Preparation (<i>n</i> = 69)	Action/ Maintenance (<i>n</i> = 390)	
Recall of modern method	87.5	95.7	96.9	.00
Recall of traditional method	64.6	52.2	23.1	.00
Low communication with wives	72.9	65.2	82.6	.00

Table 3: Logistic Regression for Likelihood of Being at the Contemplation/Preparation as Opposed to the Precontemplation Stage of Men's Readiness to Accept Intrauterine Device (IUD) for Contraception

Variables	Adjusted Odds Ratio	95% Confidence Interval	<i>p</i> Value
Had no son	1.5	0.8-2.9	.20
No spontaneous recall of traditional method	1.8	1.0-3.4	.06
Low self-efficacy for IUD	0.2	0.1-0.4	.00
<i>n</i>	261		
χ^2	36.043		
Log likelihood	265.451		

Table 4: Logistic Regression for Likelihood of Being at the Action/Maintenance Stage as Opposed to the Contemplation/Preparation Stage of Men's Readiness to Accept Intrauterine Device (IUD) for Contraception

Variables	Adjusted Odds Ratio	95% Confidence Interval	<i>p</i> Value
Had no son	0.5	0.3-0.9	.02
Had abortion	0.3	0.2-0.6	.00
No spontaneous recall of traditional method	3.8	2.0-6.9	.00
Low communication with wives	1.8	0.9-3.5	.09
High cons for IUD	0.5	0.3-0.9	.03
Low self-efficacy for IUD	0.3	0.1-0.8	.02
<i>n</i>	459		
χ^2	70.688		
Log likelihood	317.879		

4. DISCUSSION

We sought to identify modifiable factors (particularly knowledge, communication, and cognition) that would be used in interventions to increase men's acceptance of IUD use for contraception. A staging algorithm based on the transtheoretical model of behavior change was used to identify the stages of men's readiness to accept IUD use for contraception. A staging algorithm based on the transtheoretical model of behavior change was used to identify the stages of men's readiness to accept IUD use for contraception. Less than two thirds of men were in the action/maintenance stage, a third was in precontemplation, and a small proportion was in the middle stage (contemplation/preparation). These findings replicate those of our earlier study (Ha et al., 2003).

In the study sample, participants' knowledge of contraceptive methods was higher (99.4%). Participants in this study had higher knowledge than those in West Africa (85%) and East Africa (98.8%) but were similar to those in Bangladesh (99.7%) (Ezeh, Seroussi, Riggers, & Westoff, 1996). The most widely known method was the IUD, followed by condoms and the pill, whereas in other countries, the best-known method was the pill, followed by condoms and sterilization (Ezeh et al., 1996).

Several knowledge indicators were measured in our study (spontaneous, prompted, and total recall of modern, traditional, and at least one contraceptive method). However, only spontaneous recall of traditional methods was found a significant predictor of stage of change for IUD use. The finding is inconsistent with other studies, where knowledge of modern contraceptive methods was reported as a significant predictor in modern contraceptive use (National Research Council, 1993). Difference by stage may not have been found as there is a high level of contraceptive knowledge.

Couple communication is a significant predictor of contraceptive use. It allows shared decision making and more equitable gender roles (Drennan, 1998). Research shows that discussion between partners is a positive predictor of current contraceptive use (Odimegwu, 1999). However in our study, couple communication was negatively associated with men's acceptance of the IUD for contraception. Those men who had accepted IUD use for contraception for 6 months or longer were 1.8 times more likely to have a low level of communication with wives on family planning than those who had not accepted the IUD. The highest proportion with a high level of communication (34.8%) was found among men belonging to the contemplation/preparation stage. A lower proportion was reported among those in the precontemplation stage (27.1%). The proportion of high communication in the precontemplation stage was still higher than in the action/maintenance stage (27.1% vs. 17.4%). One possible explanation of this finding is that once IUD use is established, the need for discussing family planning is minimal as it is a reasonably stable method. Therefore, more communication between the partners on family planning is to be expected among those in the precontemplation and the contemplation/preparation groups.

In South East Asian countries, a son is preferred because he can inherit wealth, provide security for parents in older age, and continue the family name (Haughton & Haughton, 1995; Wongboonsin & Ruffolo, 1995). Son preference is prevalent in Vietnam (Haughton & Haughton, 1995). In this study, more than two thirds of men had a son in their family, and more than half of them also desired more sons than daughters. A majority of men desired only one son, and the maximum desired number was three, which was much lower than found in Bangladesh and Pakistan (Hussain, Fikree, & Berendes, 2000; Nosaka, 2000). Studies have shown that couples who have a son are more likely to practice contraception than those who have not (Oyeka, 1989; Stash, 1996). Men who have accepted IUDs for contraception are almost 2 times more likely to have a son in the family than those who have not.

Although some recent studies have shown that son preference is less prominent in Vietnam (Haughton, 2000; Mai, 2001), results from this study still show support for the association of son preference and contraceptive use.

One fourth of the men in this study's sample had wives who had undergone an abortion. The maximum number of abortions was four. Men who accepted the IUD for contraception were more likely to have wives who had not had an abortion. Abortion has an inverse relationship with IUD adoption, and the use of IUD reduces the risk of abortion. This finding is consistent with other studies. Gorbach, Hoa, Nhan, and Tsui (1998) examined contraception and abortion in two Vietnamese communes and found the use of the IUD reduced the likelihood of subsequent abortions in these communes by 70%.

The intermediate (dependent) constructs of TTM are decisional balance and self-efficacy. These measures are sensitive to progress through all stages (Velicer et al., 2000), contraceptive behavior is influenced by the dyadic relationship between couples, and our scale took into account the attitudes and behavior of a wife who may have been influencing her husband's IUD acceptance. For example, the cons for IUD use, which included wives' concern about possible side effects (particularly bleeding and abdominal pain), were found as significant predictors of being in the contemplation/preparation rather than the action/maintenance stage. Those who reported less concern about side effects were more likely to accept IUD use for contraception than were those who reported a high level of concern. This finding was consistent with other studies in family planning, where contraceptive users tend to report less barriers than nonusers (Keith, McCreary, Collins, Smith, & Bernstein, 1991; Lowe & Radius, 1987). Studies also show that side effects are the main barrier for contraceptive adoption (Bongaarts & Bruce, 1995).

Interpersonal and social/situational aspects that may affect willingness or ability to accept IUD use for contraception were captured by using the construct of self-efficacy. Self-efficacy for IUD use assessed men's confidence to convince wives to use or to continue using the IUD despite concerns about headache, bleeding, abdominal pain, and difficulty in sexual intercourse. People who were more confident in convincing wives to use or to continue using an IUD were almost 3 times more likely to accept an IUD for contraception than those who were less confident. The finding is consistent with other studies. It has been argued that self-efficacy is the most important prerequisite for behavioral change (Bandura, 1986), and it has been studied with respect to prevention of unwanted pregnancies and shown to be a significant predictor of contraceptive behavior (Cecil & Pinkerton, 1998; Levinson, Wan, & Beamer, 1998).

In the study, self-efficacy for IUD use was greater in the action/maintenance stage than in the precontemplation stage, consistent with other TTM studies. An increase in self-efficacy has been consistently observed in cross-sectional studies that show good discrimination between stages, with individuals in higher stages exhibiting higher self-efficacy than those in the lower stage (Velicer et al., 2000).

In our study, none of the measures for contraception in general were found to be significant predictors of men's readiness to accept IUDs for contraception. Each contraceptive method requires specific skills and knowledge for its use. Knowledge and skills for IUD use are very different from those required for the use of condoms or the pill. Women who accept IUDs for contraception need to get the IUD inserted only once, and they need not worry about giving it any further technical attention. The use of condoms and the pill however requires continual preparation and effort such as purchasing the item, getting the condom ready before intercourse, and taking the pill every day. Moreover, people who miss a dose or two of the pill need to have the knowledge to deal with this situation. There-fore,

the intermediate constructs of TTM (decisional balance and self-efficacy) as measures for general contraceptive use are not significant predictors of men's readiness to accept the IUD for contraception as they do not capture the specific skills and knowledge for its use.

Maibach and Murphy (1995) recommended three factors that should be considered when measuring self-efficacy: the behavior, the specific situation, and time frame. People will not accept a contraceptive method if they feel the use of the method requires effort that exceeds their capability. Therefore, to assess the readiness to accept a specific contraceptive method, people need to be asked specific items measuring the pros/cons and confidence related to that method in particular, not items measuring contraception in general.

The main limitation of the study is that all outcome measures were based on self-report. However, the reliance on self-report data was necessary because contraceptive behavior is a private issue. The use of a cross-sectional study to understand factors that might predict future behavior has inherent limitations. Further studies of men's readiness to accept IUD use for contraception need to use a prospective design to allow inferences about consequences and causality. Ideally, trials of intervention tailored to the different stages of readiness to accept IUD would provide such information.

4.1 Implications for Practitioners

There are potential practical uses of our findings. For example, it would be more efficient to devote educational and intervention resources to men who were not thinking about IUD use (the precontemplation group, 29.5% of our sample) and were least convinced about the need to use IUD for contraception. We found that those in the pre-contemplation stage were significantly less likely to have confidence about using IUD and were more likely to use traditional methods. The strategy would be to enhance self-efficacy for initiating IUD use and to provide information on low effectiveness of traditional methods.

Once identified, the precontemplation group should be provided with basic information about IUDs, namely, how to use it, its potential side effects, and how to manage side effects. When men become more conscious of the aforementioned issues and decide in favor of IUD use, they should be provided with messages that help to increase their confidence (self-efficacy) in persuading their wives to accept IUD use (contemplation/ preparation group). The message given to the men should be short and easy to understand, using local cultural nuances.

Although those in the contemplation stage were a small proportion (10.6%) of our sample, our findings suggest that it would be worthwhile to provide them with information on IUD use. They had higher cons for IUD and lower self-efficacy than men in the action/maintenance stage. Therefore, the strategy would be to enhance self-efficacy and reduce cons for IUD.

However, the findings of this study indicate the importance of both cons and self-efficacy for IUD use in predicting the stage of change of men's readiness for acceptance of IUD for contraception.

Condoms and the pill have been promoted in Vietnam for a long time, but the prevalence of their use is low. Further research to identify the stage distributions and the practically relevant attributes of people by their readiness to accept these methods is needed. Our study was undertaken in only two rural communes in Vietnam, focused on the individual level. There is need for further research to also address the development of practical ways to intervene at the group and community levels so as to increase the population reach of effective IUD use promotion strategies.

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