Young Women's Empowerment and Contraceptive Use in Cambodia

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ABSTRACT (150 words)

This study examined the relationship between women's empowerment and contraceptive use among young, married women aged 15-24 in Cambodia. Data came from the 2014 DHS. The outcome was measured by 1) current use of any contraception, and 2) choice of female-only versus couple contraceptives. Empowerment was measured by attitudes towards domestic violence, two household economy and three decision making variables. There were consistent, positive associations between house/land ownership and contraceptive use. Decision making in how to spend women's earnings was the only other empowerment variable related to the outcome. Attitudes towards domestic violence was not related to contraceptive use in Cambodia. The study provides evidence of the importance of women's empowerment to contraceptive use in Cambodia. It contributes to the understanding of contraceptive needs and preferences of young women so that family planning programs could ensure method availability to meet the demand, while respecting their choice of methods.

Key words: young women, empowerment, contraceptive use, method choice, Cambodia.

INTRODUCTION

Over the last two decades, women's empowerment has been increasingly recognized as a critical element to enable couples to make informed decisions about using reproductive health and family planning (FP) services [1-3]. There is a sizable body of evidence on the associations between women's decision-making and contraceptive use [4-11], with a recent increasing number of studies examining these associations within couple relationships [12-14]. However, there has been little research on women's decision-making and contraceptive choice. Do and Kurimoto [12] examined associations between women's household decision making and the use of female-only methods versus couple methods in selected African countries. In their study, female-only methods included the pill, IUD, injectable, and implant; while couple methods included male and female condoms, the diaphragm, foam, jelly, withdrawal, the lactational amenorrhea method and period abstinence – methods that require at least the awareness of, and a certain degree of support and participation from male partners. The study found evidence of positive associations between household economic decision making and the use of either type of contraceptives [12]. A major limitation of this study is that a woman was considered "empowered" if she participated in decision making either by herself or jointly with her partner or someone else. In many settings, joint decision making with partner or someone else may not necessarily mean that women truly have a say because the extent of their participation in the process is not known. León [11] suggested an egalitarian model where different scores were given to a woman depending on whether she made decisions by herself or jointly with others, as well as the relative importance of the decisions to be made. Specifically, the model suggests that women can make decisions jointly with their husband in matters of critical importance but make

autonomous decisions in matters of secondary importance. This model allows the incorporation of contextual specifications to measures of women's decision making.

To our knowledge, there has not been any study investigating these associations among young women (aged 15-24), yet, at least one in four of the 18 million annual adolescent pregnancies is either unintended or mistimed; married teenage girls were also less likely to use contraception that unmarried, sexually active girls [15]. Among young couples, the husband continues to be the primary, if not the sole decision-maker on fertility and contraceptive use. This study aims to fill this gap in the literature by documenting the associations between women's decision making and contraceptive choice among young, married women.

Settings

This study follows León's suggestions of measuring women's decision making and is set in Cambodia. Cambodia has a population of 14.7 million and an annual growth rate of 1.83% at the 2013 inter-censal population survey [16]. Four in five Cambodians lived in rural areas; one in five was between the ages of 15 and 24 [17]. Since the adoption of the Birth Spacing Policy in 1995, the government has made it a priority for the family planning program to contribute to reducing undesired pregnancies and maternal and newborn mortality [18]. Total fertility rate (TFR) had decreased over the past decade from 3.4 in 2005 to 2.7 in 2014, but the median age of first time mothers was still 22.4 years, and 12% of young women aged 15-19 were already mothers or pregnant with their first child [17, 19]. The latter was increased from 8.2% among 15-19 year old women in 2010, and the increase was observed across women's socio-demographic characteristics [19]. It is important to note that contraceptive use among teenagers was associated

with a live birth and early childbearing among young women was nearly exclusively among those in union [19].

Modern contraceptive use was 42.8% in 2017, a 5.3 percentage point increase from 2012, as Cambodia remained one of the countries with lower use of contraception [20]. Among young, married women, modern contraceptive use was 20.2% among the 15-19 age group and 34.4% among the 20-24 age group; oral pills and injectables were the most frequently used methods among these groups [17]. Reliance on traditional contraception was high in Cambodia: while 81.8% of total demand for contraception was met, 56.1% of it was satisfied by modern contraceptives, which means that about 30% of demand for contraception was met by traditional contraceptive use [17, 21]. Increases in both modern and traditional method use have contributed to falling fertility since 2000 [18]. However, previous studies indicated that support from husband, family, and elders were important for decision making regarding contraceptive use among Cambodian women [22].

DATA AND METHODS

Data

We used data from the most recent DHS in Cambodia (2014), providing nationally representative data on fertility and contraception, which were downloaded from the website of the DHS program. The survey included all women aged 15-49, regardless of their marital status, in selected households. The DHS typically includes questions related to contraceptive knowledge and use, exposure to FP messages via various channels, and socio-demographic characteristics of the women and their partners, although there are few country-specific variations. We limited this analysis to 2,209 currently married women aged 15-24.

Measures

The outcome of interest was current use of contraception. This was measured by two variables: 1) a binary variable indicating whether a woman was using any traditional or modern method of contraception, and 2) a categorical variable indicating whether a woman was not using any method of contraception, or she was using a female-only method or a couple method. As mentioned above, female-only methods of contraception included the pill, IUD, injectable, and implant; while couple methods included male and female condoms, the diaphragm, foam, jelly, withdrawal, the lactational amenorrhea method and period abstinence.

Women's empowerment was measured in two key domains: 1) attitudes towards domestic violence, and 2) household economy. Women's *attitudes towards domestic violence* were measured using questions about whether they believed it was justifiable for a man to beat his wife in several specific situations, e.g. if she went out without telling him. Responses were also summed up and categorized into low versus high levels of empowerment, with a high level indicating that that domestic violence was less justifiable (i.e. a positive attitude). Women's empowerment in *household economy* was measured by the following five variables:

1) Whether a respondent owned another house or a piece of land either alone or with somebody else;
2) Whether a respondent's earning was lower, the same or higher than her partner's earning; if a woman had no paid work, she was categorized as having a lower earning than her partners;
3) Three variables indicating whether a respondent had any say in making decisions related to how to spend her own earnings, her partner's earning, and major household purchases.

Following the egalitarian model [11], we coded these variables 0 if the woman had no say in decision making, 1 if the women made decisions jointly with her partner, and 2 if the women made decisions on her own.

It is important to note, however, that while we made assumption that making decisions on her own implied that a respondent had more power in these situations, we did not have enough evidence that these were the most important domains of empowerment in Cambodia; therefore, a composite score constructed from these variables may not have the same meaning of empowerment. For this reason, we treated these variables separately in our analyses.

We controlled for several factors that may have strong influence contraceptive use, including knowledge of contraceptive methods (traditional and modern), exposure to FP messages on mass media, through personal contacts (including family, relatives, friends, etc.), and whether a woman was visited by a FP worker in the last few months. Women's age and the number of living children (none vs. at least 1) were key demographic factors that may influence contraceptive use. Other socio-economic characteristics of the women and their husband were also controlled for.

Methods

Bivariate logistic and multinomial analyses were first conducted to examine variations in contraceptive use by independent variables. Percentages in the outcomes and Chi-square test results were presented for categorical independent variables; unadjusted relative risk ratios were presented for continuous independent variables, e.g. partner's age. Second, multivariate logistic and multinomial regressions were employed to investigate associations between women's

empowerment measures and any contraceptive use and method choice. In these analyses, we controlled for socio-demographic factors that may affect the outcome. All analyses were carried out using the *svy* set of commands in Stata 15 to take into account the complex sampling design of the DHS [23].

FINDINGS

Table 1 showed that 44.12% of currently married women aged 15-24 included in the study were using a traditional or modern method to avoid pregnancy; this included 26.77% of young married women using female-only methods and 17.35% using couple methods. The first column of Table 1 showed the distribution of the study sample. There were some fairly large differences in measures of empowerment in the household economy. For example, the vast majority of the sample reported having some say (i.e. making decisions by themselves or jointly with partner) in how to spend partner's earnings (96%) and major household purchases (91%). This is in contrast with just two-thirds of the respondents reported having some say in how to spend their own earnings and 34.22% reported having no say in the matter at all. More than 70% of the women in the sample reported having no financial earnings and earned less than did their partner. Just over half (54.84%) reported owning another house or some land. On the other hand, 61.1% of the sample reported positive attitudes towards domestic violence, i.e. they did not think the domestic violence was justifiable in many situations.

Nearly two-thirds of the sample had heard of 9 or more traditional and modern contraceptive methods. Yet, reported exposure to FP messages was not high. Out of four possible media sources, 1.52 was the average number of sources of FP reported. Women in the sample

also reported hearing FP messages from less than 1 personal contact on average. Similarly, only one in five young, married women reported hearing about FP from a health worker.

Bivariate analyses

The rest of Table 2 showed variations in the outcomes – use of any contraceptive method and choice of method – by key independent variables and socio-demographic characteristics.

Table 2 about here

Across the three decision making variables, use of any contraception was seen lowest among those who reported having no say, and highest among those who reported making decisions jointly with their partner. Married women who reported making decisions on their own did not report the highest level of any contraceptive use. On the other hand, contraceptive use was increased among those who had no earnings or lower earnings than their partner's, to those who reported the same earnings as their partners, and highest among those who had higher earnings than their partners ($p<.01$). Owning another house or land was also associated with increase contraceptive use in the bivariate analysis ($p<.001$). This first outcome, any use of contraception, did not vary across levels of attitudes towards domestic violence.

There were also several variations of the second outcome – choice of methods – across empowerment variables. Female-only method, as well as couple method, use was also higher among those who reported joint decision making about how to spend their earnings, compared to those who made decisions on their own or having no say at all ($p<.001$). A similar pattern was observed with decision making about how to spend partner's earnings but the differences were not statistically significant. The pattern was less clear with major household purchase decision making, although the differences were significant at $p<.10$. However, it was consistently

observed that the percentage of women who made decisions either by themselves or jointly with their partner and reported female-only method use was higher than that who reported couple method use. With regard to respondent's earnings compared to partner's, the percentage of women who reported using female-only methods was higher than that who reported using couple methods, across different categories of earnings ($p<.05$). Owning a house/land was associated with increased use of both female-only and couple methods of contraception in the bivariate analysis; and use of female-only method was still higher than that of couple methods ($p<.001$). The same pattern was observed with attitudes towards domestic violence ($p<.05$).

Higher use of any contraception, as well as higher use of female-only methods compared to couple methods, was reported among those with high level of contraceptive knowledge. Both outcomes also varied across measures of FP message exposure through different channels. Among socio-demographic characteristics, respondent's age, partner's age, and whether respondent had one or more child, were associated with variations in both outcomes. Only the second outcome – method choice – was found to vary by respondent's education, wealth quintile, partner's education, and residence.

Factors associated with use of any contraceptive method

Table 2 showed results of the multivariate logistic analyses on the use of any traditional or modern method of contraception. Model 1 included only women's empowerment while model 2 controlled for FP related variables and socio-demographic characteristics. In both models, house/land ownership was consistently associated with increased likelihood of using a contraceptive method: those who owned another house or land, even jointly with somebody, was almost twice as likely as those who did not to be using a method of contraception ($p<.001$).

House/land ownership also the strongest predictor of contraceptive use among the empowerment measures. Having some say in making decisions about how to spend a respondent's earnings also had positive associations with the outcome, particularly if a woman made decisions jointly with her partner ($p<.05$). However, making decisions on her own was not significantly related to her contraceptive use in either model. There was some evidence of positive associations between a women's having higher earnings compared to her partner's and contraceptive use ($p<.05$ in Model 2). None of the other household economy decision making variables were related to contraceptive use. Attitudes towards domestic violence were also not related to contraceptive use.

Model 2 showed a few other factors that were associated with current use of contraception. High knowledge of contraceptive methods was related with 54% increase in the likelihood of contraceptive use ($p<.01$). Among measures of exposure to FP messages, only exposure through personal contacts was marginally related to current use of contraception ($p<.10$); mass media and health workers did not prove to be important sources of FP messages in this analysis. Among socio-demographic characteristics, having one or more child was the strongest predictor (OR=9.28, $p<.001$) of current use of contraception. Having higher than secondary school education was the only other socio-economic variables that was related to contraceptive use, although only at the level of $p<.10$.

Factors associated with method choice

Results of the multivariate analyses of method choice were shown in Table 3. Similar to the first outcome, method choice was consistently associated with house/land ownership: women who owned another house or land were more likely to report current use of both female-only and

couple methods, compared to those who did not own another house or land (OR ranged between 1.69 and 2.27, and p-value were <.01 or <.001). Among the other variables related to household economy, decision making in how to spend a respondent's earnings was the only one having significant associations with the outcome. Interestingly, both models showed that if a respondent had some say in decision making – either by making decision on her own or jointly with her partner – she was more likely to use couple methods than a respondent who had not say at all. It also seemed that making decisions jointly with her partner had a stronger association with couple method use (ORs greater than 2 in both models) than making decisions on her own (ORs approximately 1.5 in both models). It was also interesting to observe that having any say in this decision making process was not associated with the use of female-only methods. A high level of positive attitudes towards domestic violence was associated with increased use of couple methods in Model 1, but the association did not hold in Model 2 when other factors were controlled for.

A high level of contraceptive knowledge was associated with more than two times increase in the use of couple methods (OR=2.64, p<.001) but not with female-only method use. There were some marginal associations between female-only and couple method use with exposure to FP messages via mass media and personal contacts, but not with health workers. Having had at least one child again was strongly associated with the use of both female-only and couple methods (p<.001). Partner's education was the only factor associated with female-only method use: women whose partner had a higher than secondary school education were less likely to report using female-only methods than those whose partner had no schooling (OR=.31, p<.05). The use of couple methods, however, was associated with several socio-demographic characteristics besides the number of children, including respondent's education, wealth quintile,

and residence. Women with more than secondary school were nearly four times as likely as those without education to report using couple methods of contraception (OR=3.82, $p<.05$); primary and secondary school education, however, was not associated with the outcome. Compared to the poorest quintile, women in the poorer, richer and richest groups were also more likely to be using couple methods. Living in urban areas was associated with 70% increase in the likelihood of using couple methods ($p<.05$), but not associated with female-only method use, compared to living in rural areas.

DISCUSSION

This study examined associations between women's empowerment and use of contraceptives among young, married women in Cambodia. The analyses showed evidence of some empowerment measures with two outcomes: 1) current use of any traditional or modern contraceptive method, and 2) choice of female-only or couple methods of contraception. Less than half of the sample were using a contraceptive method at the time of the survey; a little over one in four was using a female-only method, while 17% were using a couple method. Our finding is consistent with the literature from Cambodia, highlighting the reliance on traditional methods of contraception. For example, the World Health Organization (WHO) documented a two-fold increase in modern contraceptive use and a three-fold increase in traditional method use between 2000 and 2014 [18]. The WHO suggested that widespread unavailability of modern, long-term methods like IUDs or implants, coupled with the lack of provider's capacity in providing counseling and offering modern methods, was an important reason for couples' reliance on traditional methods in Cambodia [18].

Ownership of another house or land, either by herself or with someone else, had positive associations with both outcomes. Among decision making variables, only that related to how to spend a respondent's earnings was related to both outcomes across models. The other decision-making variables, as well as attitudes towards domestic violence, did not have a consistent relationship with the outcomes. We purposely used individual variables that measure decision-making in the household economy in order to identify their independent effects on the outcomes in the context of Cambodia, where little is known about women's empowerment and its relationship with reproductive health outcomes. Although there was a risk of collinearity, we did not have evidence that these variables were highly correlated; the highest correlation coefficient (.37) was between women's earnings compared to partner's and their decision-making power in how to spend their earnings. This was largely due to the coding of those who did not have a paid job as having no say in how to spend their own earnings.

It is interesting to note that this study also did not provide evidence of the egalitarian model [11] in that respondents' decision making on their own in the household economy did not have a stronger associations with contraceptive use than did decision making jointly with their partner. In fact, joint decision making about spending respondent's earnings was significantly related to any contraceptive use, while respondent's alone decision making did not. Similarly, having any say in decision making in this matter was also associated with only couple method use. The evidence, therefore, seemed to suggest that women's joint decision making may be an indicator of empowerment and a stronger predictor of couple contraceptive use, which also involves both partners. In other words, in the Cambodian context, women's making decision on her own, at least in the spending of her own earnings, was probably not a good measure of empowerment. Moreover, while trying to apply the egalitarian model, the coding of decision

making variables was somewhat arbitrary, since we did not have strong, qualitative evidence of the relative importance of each variable in measuring women's empowerment. It is important that the egalitarian model employed in situation where the relative importance of each aspect of decision making is understood.

Attitudes towards domestic violence were associated with contraceptive use – either use of any method or choice of methods. A possible explanation is that the DHS questions do not adequately capture the extent that women's decision-making represents empowerment in these countries. Although the survey items are grounded in formative research from Asia [24, 25], most of the questions were developed more than a decade ago and may no longer be appropriate in the current context. Previous studies have shown that family visit decision-making may lack contextual relevance and that restrictions may occur only in extreme situations [26]. For instance, Schuler, Islam and Rottach [27] suggested that mobility restriction was no longer a salient issue to women in Bangladesh, although women still avoid traveling alone for safety reason or because they prefer a companion. In Cambodia, we did not include this variable in the analysis because the outcomes did not vary by women's decision making in this aspect. Mahmud, Shah and Becker [28] also indicated that women's participation in decision-making, freedom of mobility and resource control were not necessarily correlated with empowerment. Some other studies have also suggested that it was couple's, rather than woman-only, decision-making that was important for contraceptive use in the South Asian context [13]. This is consistent with our findings in Cambodia. However, qualitative research is necessary to understand the meaning the justification of wife beating with regard to empowerment within Cambodian's specific cultural context. The underlying theoretical relationships between attitudes towards domestic violence with contraceptive use also need to be further explored.

Another important finding is the very strong, positive association between having at least one child and modern contraceptive use. This effect was independent of and did not modify the effects of women's empowerment on contraceptive use (results not shown). The finding suggests that for young, married women in Cambodia, it was important to start childbearing soon after marriage and the use of contraceptives was likely for spacing purposes after the women have proven that they were fertile. This is consistent with other studies in Cambodia [19]; some studies have pointed out provider's perceptions that a married woman without any children should not be using any contraception as a barrier to FP practice among young Cambodian women [18].

An important limitation of the study is the standardized questions used in the DHS core questionnaire to assess women's empowerment, with little adaptation to each country, resulting in the limited robustness of the findings in each country. While the core questionnaire facilitates cross-country assessments of women's empowerment at the household level, there have been concerns that these questions do not take into account a specific cultural context and therefore may not adequately capture the level of decision-making power exercised by women in each country [26]. Although Phan [29] found that household decision-making in health, spending, and visits appeared to be a strong predictor of women's empowerment, questions about women's attitudes towards domestic violence often only focus on the individual woman without taking into consideration her and her husband's family [30, 31]. For example, young women in South and Southeast Asia may be raised to obey their husband, a social norm that is transferred from one generation of women to the next and reinforced by their own fathers and husbands, that will prevent women from negotiating sex [32, 33]. Mothers, mothers-in-law, and elders are also

recognized as important decision-makers with regard to a couple's childbearing but are not often mentioned in the standard DHS questions [22].

In addition, the DHS is limited on several critical dimensions of empowerment, including women's participation in legal and political processes [34]. Other limitations are related to the cross-sectional nature of the data, and the reliance on women's report without information from men.

Despite the limitations, the study provides some evidence of the importance of women's empowerment in the household economy and decision making to contraceptive use among young, married girls in Cambodia. Caution should be exercised when one interprets the study findings to not jump to conclusions that improved women's decision-making power in certain aspects would lead to increased use of contraception. Researchers have argued that such interventions may inadvertently undermine women's autonomy in other aspects, or limit options available to vulnerable women [35, 36]. Rather, the study contributes to the understanding of reproductive and contraceptive priorities, needs, and preferences of young women, so that FP programs could ensure of mix of female-only and couple methods available to meet their demand for contraception, while respecting young women's choice of methods.

It is also important to keep in mind that within the countries studied, many of the social values and cultural norms that contribute to (the lack of) women's empowerment may be transferred from generations of women and are integral part of a young girl's upbringing environment. It is therefore important for FP programs to not only take into consideration women's empowerment issues among married couples, but also address these issues with young

girls early on. FP programs that engage families and communities, as well as young couples, may be more likely to succeed in the long-term.

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Table 1. Sample distribution and current use of modern contraceptives by individual's characteristics, Cambodia 2014.

	Distribution % or mean (s.e.)	**Use of any contraception % or OR (s.e.)**	**Choice of contraception % or RRR (s.e.)**		
			Non-use	**Female-only methods**	**Couple methods**
Total		44.12	55.88	26.77	17.35
Decision making in					
How to spend respondent's earnings		***	***		
No say	34.22	37.62	62.38	25.12	12.51
Jointly with partner	18.95	54.65	45.35	30.53	24.13
Respondent only	46.84	44.60	55.40	26.46	18.14
How to spend partner's earnings		*			
No say	3.55	40.17	59.83	19.13	21.04
Jointly with partner	38.10	48.17	51.83	29.26	18.91
Respondent only	58.35	41.67	58.33	25.61	16.06
Major household purchases		(a)	(a)		
No say	9.03	37.50	62.50	18.26	19.24
Jointly with partner	75.04	45.69	54.31	27.58	18.11
Respondent only	15.93	40.46	59.54	27.77	12.69
Respondent's earning compared to partner's		**	*		
No earning/lower	71.13	41.37	58.63	25.32	16.05
Same	19.58	50.16	49.84	28.55	21.62
Higher	9.29	52.14	47.59	34.13	18.28
Owned another house/land		***	***		
No	45.16	34.27	65.73	19.88	14.40
Yes	54.84	52.22	47.78	32.45	19.78
Attitudes towards domestic violence			*		
Low	38.90	43.09	56.91	28.79	14.30
High	61.10	44.77	55.23	25.49	19.29

	Distribution % or mean (s.e.)	Use of any contraception % or OR (s.e.)	Choice of contraception % or RRR (s.e.)		
			Non-use	Female-only methods	Couple methods
Knowledge of contraceptives		***	***		
Low (0-8 methods)	46.36	36.56	63.44	26.74	9.82
High (9-14 methods)	63.64	50.65	49.35	26.80	23.86
Exposure to FP messages via…					
Mass media	1.52 (.03)	1.02 (.04)	---	.96 (.05)	1.15 (.07)*
Personal contacts	.84 (.02)	1.26 (.09)**	---	1.26 (.11)**	1.27 (.12)*
Health workers		**	*		
No	79.54	42.39	57.61	25.69	16.70
Yes	20.46	50.85	49.15	30.97	19.88
Individual's socio-demographic characteristics					
Age group		***	***		
15 – 19	48.95	4.60	95.40	2.71	1.90
20 – 24	51.05	29.69	70.31	17.75	11.94
Education			***		
No schooling	6.46	44.70	55.30	35.70	8.99
Primary	44.40	43.19	56.82	28.60	14.57
Secondary	46.55	45.10	54.90	25.15	19.95
Higher	2.59	41.16	58.80	2.10	39.06
Wealth quintile			***		
Poorest	20.38	43.66	56.34	34.25	9.41
Poorer	20.34	44.22	55.58	28.57	15.85
Middle	20.72	38.49	61.51	26.14	12.35
Richer	20.43	46.64	53.36	26.48	20.17
Richest	18.12	47.88	52.12	17.40	30.47
Religion			(a)		
Buddhism	94.67	44.27	55.73	26.44	17.83
Others	5.33	41.43	58.57	32.63	8.80

	Distribution % or mean (s.e.)	Use of any contraception % or OR (s.e.)	Choice of contraception % or RRR (s.e.)		
			Non-use	Female-only methods	Couple methods
Number of living children		***	***		
0	29.88	13.96	86.04	3.96	10.00
1+	70.12	56.96	43.04	36.48	20.47
Partner's age	25.66 (11.31)	1.05 (.01)***	1.00	1.04 (.01)**	1.07 (.02)***
Partner's education			***		
No schooling	6.55	51.91	48.09	38.39	13.53
Primary	42.32	42.39	57.61	29.76	12.63
Secondary	45.54	45.20	54.80	24.60	20.60
Higher	5.59	39.21	60.79	8.19	31.02
Residence			***		
Rural	87.81	43.85	56.15	28.59	15.25
Urban	12.19	46.06	53.94	13.66	32.40

(a) p<.10; *p<.05; ** p<.01; *** p<.001

Table 2. Factors associated with current use of any contraceptives among currently married women aged 15-24, Cambodia 2014.

	Any method use OR (s.e.)	
	Model 1	**Model 2**
Decision making in…		
How to spend respondent's earnings (ref = no say)		
Jointly with partner	1.52 (.28)*	1.78 (.40)*
Respondent only	1.12 (.15)	1.26 (.19)
How to spend partner's earnings (ref = no say)		
Jointly with partner	1.21 (.41)	1.29 (.55)
Respondent only	1.05 (.34)	.95 (.38)
Major household purchases (ref = no say)		
Jointly with partner	1.26 (.26)	1.05 (.22)
Respondent only	1.17 (.30)	1.17 (.31)
Respondent's earning compared to partner's (ref = no earnings/lower)		
Same	1.16 (.17)	1.27 (.21)
Higher	1.40 (.32)	1.69 (.41)*
Owned another house/land (ref = no)	2.07 (.22)***	1.72 (.23)***
Attitudes towards domestic violence (ref = low)		
High	1.07 (.11)	1.05 (.13)
Knowledge of contraceptive methods (ref = low)		1.54 (.21)**
Exposure to FP messages via…		
Mass media		.91 (.05)
Personal contacts		1.18 (.11)[(a)]
Health workers		1.09 (.15)
Individual's socio-demographic characteristics		
Age group (ref = 15-19)		
20 – 24		1.08 (.20)
Education (ref = no schooling)		
Primary		1.07 (.25)
Secondary		1.26 (.33)

	Any method use OR (s.e.)	
	Model 1	**Model 2**
Higher		2.20 (1.04)[(a)]
Wealth quintile (ref = poorest)		
Poorer		1.25 (.20)
Middle		.94 (.19)
Richer		1.41 (.35)
Richest		1.47 (.39)
Religion (ref = Buddhism)		
Others		.90 (.25)
Number of living children (ref = 0)		
1+		9.28 (1.58)***
Partner's age		.99 (.01)
Partner's education (ref = no schooling)		
Primary		.67 (.16)
Secondary		.80 (.20)
Higher		.59 (.29)
Residence (ref = rural)		
Urban		1.23 (.25)

(a) p<.10; *p<.05; ** p<.01; *** p<.001

Table 3. Factors associated with current use of women vs. couple contraceptive methods among currently married women aged 15-24, Cambodia 2014.

	Model 1 RRR (s.e.)		Model 2 RRR (s.e.)	
	Female-only methods	**Couple methods**	**Female-only methods**	**Couple methods**
Decision making in…				
How to spend respondent's earnings (ref = no say)				
Jointly with partner	1.21 (.25)	2.20 (.55)**	1.41 (.35)	2.52 (.71)**
Respondent only	.95 (.15)	1.46 (.26)*	1.08 (.20)	1.56 (.29)*
How to spend partner's earnings (ref = no say)				
Jointly with partner	1.52 (.65)	.90 (.39)	1.58 (.79)	1.05 (.54)
Respondent only	1.25 (.51)	.85 (.36)	1.09 (.50)	.85 (.43)
Major household purchases (ref = no say)				
Jointly with partner	1.56 (.39)[(a)]	.97 (.25)	1.36 (.36)	.72 (.19)
Respondent only	1.63 (.50)	.73 (.24)	1.85 (.59)[(a)]	.62 (.21)
Respondent's earning compared to partner's (ref = no earnings/lower)				
Same	1.15 (.18)	1.18 (.23)	1.33 (.23)	1.25 (.28)
Higher	1.60 (.45)[(a)]	1.13 (.28)	2.37 (.74)**	1.15 (.31)
Owned another house/land (ref = no)	2.27 (.28)***	1.79 (.27)***	1.69 (.25)***	1.74 (.29)**
Attitudes towards domestic violence (ref = low)				
High	.92 (.11)	1.37 (.19)*	1.03 (.14)	1.08 (.17)
Knowledge of contraceptive methods (ref = low)			1.12 (.17)	2.64 (.46)***
Exposure to FP messages via…				
Mass media			.93 (.06)	.87 (.07)[(a)]
Personal contacts			1.21 (.13)[(a)]	1.15 (.14)
Health workers			1.04 (.18)	1.19 (.21)
Individual's socio-demographic characteristics				
Age group (ref = 15-19)				
20 – 24			1.09 (.22)	1.04 (.27)

	Model 1 RRR (s.e.)		Model 2 RRR (s.e.)	
	Female-only methods	**Couple methods**	**Female-only methods**	**Couple methods**
Education (ref = no schooling)				
Primary			.94 (.23)	1.69 (.65)
Secondary			1.14 (.34)	1.91 (.75)
Higher			.25 (.18)[a]	3.82 (2.16)*
Wealth quintile (ref = poorest)				
Poorer			1.05 (.19)	2.01 (.52)**
Middle			.88 (.20)	1.29 (.36)
Richer			1.18 (.31)	2.36 (.76)**
Richest			.99 (.29)	2.79 (.96)**
Religion (ref = Buddhism)				
Others			1.13 (.31)	.50 (.24)
Number of living children (ref = 0)				
1+			19.03 (5.02)***	5.10 (1.06)***
Partner's age			.99 (.02)	.98 (.02)
Partner's education (ref = no schooling)				
Primary			.69 (.18)	.60 (.23)
Secondary			.71 (.19)	.94 (.37)
Higher			.31 (.16)*	.79 (.41)
Residence (ref = rural)				
Urban			.78 (.18)	1.69 (.41)*

*p<.05; ** p<.01; *** p<.001