Factors associated with the use of family planning among Palestinian women

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Family planning has been a key issue in the promotion and improvement of reproductive health as well as in population reduction programs[1]. The use of contraception has been associated with declining fertility; improving the health of women and children through birth-spacing and the reduction of the number of pregnancies; as well as increasing women's empowerment through allowing them to continue their education and join the labor force[1, 2]. Furthermore, family planning has also been pushed through a reproductive rights framework, as affirmed in the proceedings of the 1994 International Conference on Population and Development held in Cairo[3]:

> "Reproductive health therefore implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so. Implicit in this last condition are the right of men and women to be informed and to have access to safe, effective, affordable and acceptable methods of family planning of their choice…"

Women's education, employment, access to and knowledge of contraception have been highlighted as important predictors of fertility and contraception by demographers [2, 4-12]. Previous studies have shown that couple attitudes towards family planning, fertility desire, and women's ability to make decisions regarding the use of family planning were important predictors of family planning use[13-16]. Some studies indicated that in cases where there was couple disagreement, childbearing was less likely to occur[15, 16], whereas other studies in India[14] and Nigeria[13] have shown that men's attitudes played a bigger role in determining actual childbearing behavior than that of their wives.

In the Middle East, knowledge and use of contraception are prevalent in varying degrees and have been shown to have a negative impact on fertility. Similarly, contraceptive use and delayed marriage have been shown to have positive effects on fertility reduction[17]. A study of 615 married women between the ages of 15-49 in Kuwait[18] found that Bedouins, women married at younger ages, and women with a

greater number of children desired larger families; whereas women's education and husbands' education had a negative effect on fertility desire. Women with higher education, women whose spouses were more educated, and women who had reached or exceeded their ideal family size were more likely to use contraception. Similarly, a cross-sectional study of 1,830 women in Oman[2] indicated that education, employment, and increased autonomy made women more likely to use contraception. The study also indicated that in nearly half of cases, the husband decided whether contraception would be used. Another study conducted in the Bureij refugee camp in the Gaza Strip indicated that increased education, younger age, and husbands' positive attitudes towards contraception had a positive effect on contraceptive use[19].

In the Palestinian context, total fertility rates have continued to be among the highest in the region with the last reported figure at 4.6 children per woman [20]. Although previous studies have noted that high fertility is desired in the Palestinian setting, recent estimates from the 2006 Palestinian Family Health survey (PFHS)[20] indicate that about 40% of pregnancies are either unwanted or mistimed. Furthermore, about 27% of women who have given birth in the five years preceding the survey have had short birth intervals (less than 18 months between birth of one child and the next)[20].

Given that contraception plays an important role in women's achievement of their desired fertility, this paper will examine various predictors of contraceptive use among Palestinian women to better understand the contexts in which women choose whether to use contraceptives or not. This paper moves beyond basic demographic variables to include couple attitudes towards family planning as well as women's

roles in contraceptive decision making in order to better understand the context of family planning use.

Methodology:

This study utilizes data from the 2006 Palestinian Family Health Survey (PFHS) conducted by the Palestinian Central Bureau of Statistics (PCBS) and the Pan-Arab Project for Family Health (PAPFAM).The PAPFAM surveys are similar to the well-known Demographic and Health Survey in design, but with a focus on family health in the Arab countries.

The survey sample was a stratified two-stage design. In stage one, a random sample of 325 numerating areas (PSUs) was selected with probabilities proportional to size. In the second stage, a fixed number of 40 households were selected randomly from each enumerated area. The overall response rate for the survey is 88% (86% for West Bank and 93% for Gaza Strip). This study utilizes data for the household members completing the first questionnaire. In total, 7,056 households took part in the study with a total of 4,890 currently married women between the ages of 15-49.

This study utilizes bi-variate and multi-variate analyses of the PFHS data on contraceptive use and fertility preferences. Current contraceptive use is the dependent variables in this paper. The main independent variables are husband's attitudes towards family planning, wife's attitudes towards family planning, the wife's involvement in contraceptive decision making, fertility desire, and husband's preference for children (in relation to wife's preference). Other variables of interest

include age, age at marriage, parity, women's education, women's employment, wealth status, the type of locality, and region of residence (West Bank, Gaza Strip).

Statistical analysis included basic descriptive measures mainly frequencies. Chi square tests were used to test for bi-variate associations, while logistic regression was used for the multivariate analysis. All variables that were significant in the bi-variate model were entered into the multivariate regression. One variable, education, which was not significant in the bivariate model, was included in the multivariate model because of its significance in the literature.

Results:

The results indicate that 53% of married women 15-49 are currently using some form of contraception, of which about 75% are using a modern contraceptive method. The sample characteristics are outlined in Table 1.

Table 1-Sample Characteristics

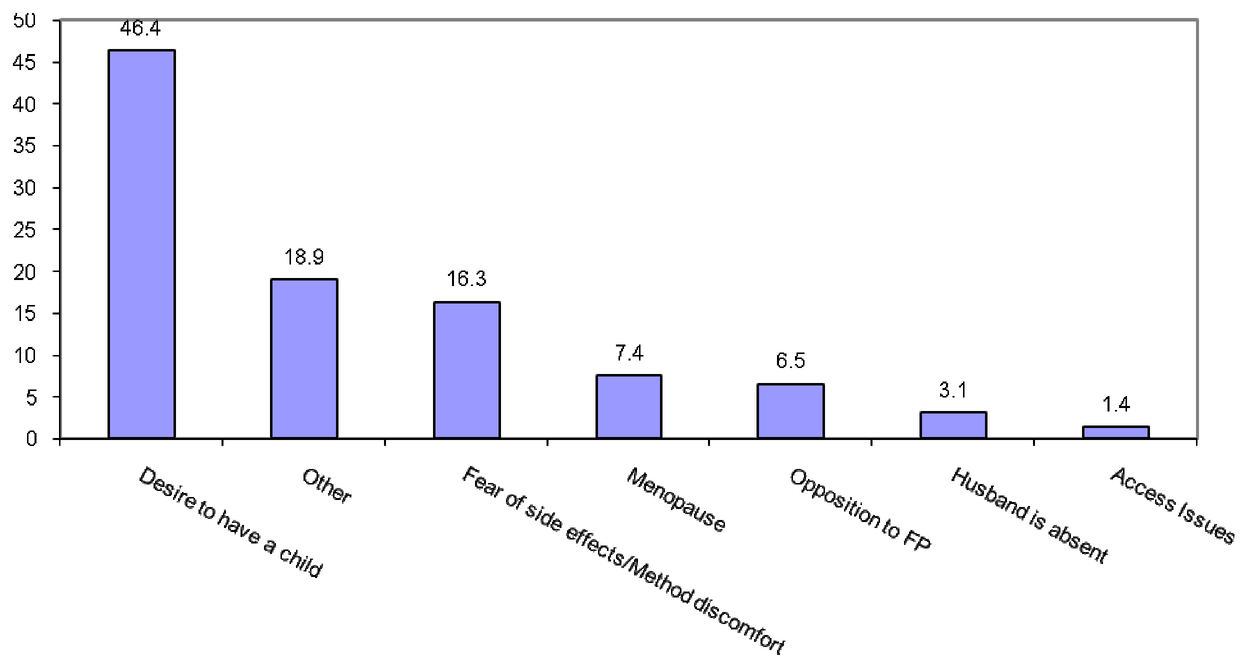
Age				
Mean		SD		
33.01		8.20		
Parity (%)				
No children	1 child	2-3 children	4-6 children	7 children or more
6.8	6.6	23.2	39.4	24.0
Age at Marriage (%)				
15-19	20-24	25-29	30+	
63.1	29.3	5.6	2.0	
Locality Type (%)				
Urban	Rural	Camp		
53.2	29.6	17.2		
Region (%)				
West Bank	Gaza Strip			
61.3	38.7			
Education (%)				
≤Primary	Preparatory	Secondary	Post-secondary	
32.1	35.1	20.7	12.1	
Wealth Quintiles (%)				
Poorest	Second	Middle	Fourth	
18.9	20.5	21.3	20.1	
Education (%)				
≤Primary	Preparatory	Secondary	Post-secondary	
32.1	35.1	20.7	12.1	
Contraceptive Use (%)				
Currently Using Contraception	Not Using Contraception			
53.0	47.0			
Couple Agreement on the Use of Family Planning (%)				
Both agree	Wife agrees, husband disagrees	Husband agrees, wife disagrees	Both disagree	
76.2	12.1	1.4	10.3	
Reproduction Desire (%)				
Have another child	Stop	Unable to get pregnant	When God wants	
46.2	40.2	3.8	9.8	
Did you ever talk to your husband about number of children you want to have? (%)				
Yes	No			
60.7	39.3			
Do you think your husband wants the same number of children as you do? (%)				
Same	More	Less		
52.4	33.9	13.7		

Women's reasons for not using contraception:

Figure 1 provides a summary of women's reasons for not using contraception. It is clear that the most common reason for not using contraception is the desire to have a child. Fear of side effects and discomfort with the family planning method account for

almost 16% of the reasons given for not using contraception. Social objections to family planning (husband, wife, and religious issue) account for about 6.5% of reasons for non-use. Access concerns were minimal, accounting for less than 1.5% of the reasons for non-use of contraception. Reasons related to reduced need for contraception (menopause and absence of the husband) accounted for a little over 10% of reasons given for non-use of contraception.

Figure 1- Main Reasons for non-use of contraception (%)



<u>Bi-variate results:</u>

In general, contraceptive use increased with parity and age, although use went down after age 45 (refer to table 2). Contraceptive use also increased with an increase in the preferred number of children. Working women and women in the higher wealth quintiles were more likely to be currently using contraception. Women living in the

West Bank and women living in rural settings were more likely to be currently using contraception.

Women who reported that their husbands wanted a smaller number of children than they did were more likely to use contraception. Women wanting to stop childbearing were the most likely to use contraception (70%), while women reporting that they could not get pregnant were the least likely to be currently using contraception (about 14%). Couples where both the husband and wife agree with the use of family planning were more likely to use contraception. Women that were involved in decision making regarding the use of contraception were more likely to use contraception than women who were not involved.

Current contraceptive use was inversely associated with age at marriage, where women marrying at younger ages were more likely to be currently using contraception.

Table 2: bi-variate analyses of contraceptives use and select factors

Variable	Contraceptive Prevalence		Sig.
	Using Contraception	Not Using Contraception	
Age:			<0.001
15-19	9.0%	91.0%	
20-24	24.7%	75.3%	
25-29	45.1%	54.9%	
30-34	57.3%	42.7%	
35-39	60.0%	40.0%	
40-44	63.5%	36.5%	
45+	39.9%	60.1%	
Age at Marriage:			<0.001
15-19	54.6%	45.4%	
20-24	53.2%	46.8%	
25-29	46.0%	54.0%	
30+	19.2%	80.8%	
Education			0.190
≤ Primary	46.7%	53.3%	
Preparatory	47.8%	52.2%	
Secondary	49.3%	50.7%	
Post-Secondary	51.6%	48.4%	
Region			<0.001
West Bank	51.2%	48.8%	
Gaza	43.5%	56.5%	
Locality Type			0.280
Urban	48.0%	52.0%	
Rural	49.6%	50.4%	
Camp	46.2%	53.8%	
Wealth Index			<0.001
1st quintile	41.5%	58.5%	
2nd quintile	48.0%	52.0%	
3rd quintile	46.8%	53.2%	
4th quintile	48.2%	51.8%	
5th quintile	56.7%	43.3%	
Employment Status			<0.001
Currently Employed	55.9%	44.1%	
Not employed	47.4%	52.6%	
Parity			<0.001
No children	0.3%	99.7%	
1 child	15.3%	84.7%	
2-3 children	47.6%	52.4%	
4-6 children	65.2%	34.8%	
7 children or more	63.4%	36.6%	
Talking to husband about number of children desired			0.199
Yes	48.7%	51.3%	
No	47.4%	52.6%	
Do you think your husband wants the same number of children?			<0.001
Same	48.8%	51.2%	
More	46.4%	53.6%	
Less	58.8%	41.2%	
Reproduction Desire			<0.001
Want to have another child	35.1%	64.9%	
Want to stop childbearing	65.9%	34.1%	
Can't get pregnant	14.4%	85.6%	
When God wants	40.3%	59.7%	
Husband's view towards family planning			<0.001
Both agree	57.6%	42.4%	
Wife agrees, husband disagrees	44.8%	55.2%	
Husband agrees, wife disagrees	44.6%	55.4%	
Both disagree	37.6%	62.4%	
Woman's involvement in contraceptive decision making			<0.001
Involved	55.9%	44.1%	
Not involved	47.4%	52.6%	

Multi-variate Results:

The final multi-variate model indicates that the main factors associated with current contraceptive use are: women's age; husband's attitude towards family planning; women's involvement in decision making regarding family planning; women's reproductive desire; husband's desired number of children in relation to the wife's; regional residence; women's socioeconomic status; education (refer to table 3).

Women between the ages of 20-44 years were significantly more likely than women aged 15-19 to use contraception. There were no significant differences between women aged 15-19 and women 45-49 in terms of contraceptive use. An increase in the number of children a woman currently has increases the likelihood of contraceptive use (O.R. 1.25, 95% CI 1.20-1.31). Women who were involved in decision making regarding family planning were more likely to use contraception (O.R. 1.49, 95% CI 1.24-1.79). Women who reported wanting to stop childbearing were more likely to use contraception (O.R. 2.13, 95% CI 1.76-2.57) while women who reported not being able to get pregnant were less likely to use contraception (O.R. 0.27, 95% CI 0.16-0.46) when compared to women reporting that they would like to have another child.

Couples where the husband and wife disagreed with the use of family planning and couples where the husband disagreed with the use of family planning were less likely than couples where both husband and wife agreed with the use of family planning to be using contraception (O.R. 0.53, 95% CI 0.42-0.67; and O.R. 0.59, 95% CI 0.48-0.74 respectively).

Women in the poorest wealth quintile were the least likely to use contraception, while women in the richest wealth quintile had the highest odds of using contraception compared to the women in the poorest group (O.R. 1.65, 95% CI 1.29-2.11). Women residing in the Gaza Strip were less likely to use contraception (O.R. 0.467, 95% CI 0.398-0.548) than West Bank women. Women with higher levels of education were slightly more likely to use contraception (O.R. 1.06, 95% CI 1.04-1.09).

Table 3-Adjusted logistical regression of contraceptive, 2006

	Exp(B)	95.0% C.I. for EXP(B)		Sig.
		Lower	Upper	
Work Status				
Employed	REF			
Not employed	0.93	0.72	1.19	0.556
Age				
15-19	REF			
20-24	2.26	1.36	3.77	0.002
25-29	3.39	2.03	5.68	<0.001
30-34	3.25	1.90	5.57	<0.001
35-39	2.72	1.53	4.83	0.001
40-44	2.42	1.32	4.44	0.004
45-49	0.67	0.35	1.28	0.222
Age at first marriage	0.97	0.94	0.99	0.009
Number of live births	1.25	1.20	1.31	<0.001
Decision Making				
Woman not involved	REF			
Woman involved	1.49	1.24	1.79	<0.001
Couple Attitudes towards family planning				
Both Accept	REF			<0.001
Wife accepts, Husband rejects	0.59	0.48	0.74	<0.001
Husband accepts, wife rejects	0.76	0.41	1.42	0.387
Both opposed to family planning	0.53	0.42	0.67	<0.001
Reproduction Desire				
Want to have another child	REF			<0.001
Want to stop having children	2.13	1.76	2.57	<0.001
Cannot get pregnant	0.27	0.16	0.46	<0.001
By God's will	0.92	0.72	1.18	0.497
Do you think your husband desires the same number of children as you?				
Same number of children	REF			0.058
More children	0.95	0.81	1.11	0.483
Less Children	1.24	1.00	1.54	0.047

Type of locality				
Urban	REF			0.403
Rural	0.93	0.78	1.12	0.453
Camp	1.10	0.90	1.33	0.355
Region				
West Bank	REF			
Gaza Strip	0.48	0.41	0.57	<0.001
Wealth Index				
1st quintile	REF			0.003
2nd quintile	1.32	1.06	1.66	0.014
3rd quintile	1.32	1.05	1.65	0.016
4th quintile	1.33	1.05	1.68	0.016
5th quintile	1.65	1.29	2.11	<0.001
Completed years of schooling	1.06	1.04	1.09	<0.001
N=4087				

Discussion:

The main predictors of current contraceptive use, based on the study results, are: socioeconomic status, current age, region of residence, education, husband's attitudes towards contraception, wife's involvement in contraceptive decision making, and the husband's desired number of children in relation to his wife.

The association between contraceptive use and improved socioeconomic status and women's education is also fairly consistent with the literature [2, 21, 22], where poorer women have generally had lower rates of contraceptive use. The youngest and oldest age groups were less likely to use contraception. Women in the youngest groups is more likely to be at the early stages of their childbearing years and are hence less likely to have reached their desired fertility. The oldest group, on the other hand, is more likely to have reached their desired fertility level and are also more likely to have reached menopause.

The variations in contraceptive use between the West Bank and Gaza Strip are not surprising considering the consistently higher fertility in the Gaza Strip[23, 24]. It is unclear why such variations exist, but it may be associated to what has generally been perceived to be a more traditional culture in the Gaza Strip that places more emphasis on childbearing[19, 24].

Similar to other studies, the results of this study indicate that couple agreement in favor of contraceptive use, greater women's involvement in the decision to use contraception, couple agreement on the number of children they would like to have, and the desire to stop having children increase the likelihood of contraceptive use[2, 21, 22, 25, 26]. The results of this study indicate that the husband's negative attitudes towards family planning play a bigger role in affecting contraceptive use, which may relate the patriarchal context in the oPt. This has been indicated by the significantly reduced odds of contraceptive use among couples where the husband disagrees with the use of family planning and the wife agrees. The same association was not found among couples where the opposite was true. Significantly higher odds of use were found among couples where the wife reported that her husband wants a lower number of children than she does. Like other studies, findings from this study confirm that the attitudes of the husband play a significant role in couples' decisions to use contraception[2, 14, 15, 17, 18, 27], indicating a need for family planning programs to target men as well as women.

It should be noted that although couples where the husband and wife were against the use of family planning were the least likely to be currently using contraception, about a third of these couples were using contraception. This indicates that there may be

variation between people's stated attitudes and their actual behavior. Further study, including qualitative methods, may further explain the context of contraceptive use in the oPt.

Conclusions/Policy Recommendations:

This analysis of the 2006 PFHS data on the determinants and patterns of contraceptive use in the oPt shows that while there has been an increase in the contraceptive prevalence over the years, there are various shortcomings in the family planning program. The relatively high proportions of women at risk of either a mistimed or unwanted pregnancy because they are not using any form of family planning should be of concern to policy makers and health service providers. Given the relatively high fertility, high percentages of unwanted and mistimed pregnancies, as well as a consistently high population growth rate; improving the coverage, acceptance, and uptake of family planning services should be a priority to policy makers.

- The positive association between education, women's empowerment (through employment as well as involvement in decision making), and positive attitudes towards family planning and actual contraceptive use can be effective entry points in promoting and raising awareness on family planning. Comprehensive health education and promotion could be used as a possible strategy.
- It is also evident that increasing awareness and acceptance of contraceptive use among women is not enough, because women are more likely to indicate their husbands' objections. Furthermore, given the structure of power relations within Palestinian families and the husband's decision making authority, an

effective family planning program will have to address men’s objections and raise awareness among both men and women.

- Working with stakeholders and community leaders has been an effective strategy in the promotion of family planning in other parts of the world. Including local religious and community leaders in promotion activities may increase the effectiveness of such programs.
- Women’s concerns about the discomfort of contraceptives as well as their fears of side effects should be addressed by service providers. Women should be provided with complete information about the various contraceptive options as well as the risks involved. It is likely that some of women’s fears may stem from rumors or cultural attitudes, so it would be proper for these issues to be addressed by health professionals in a clear, respectful, and open manner.
- Accessible, quality family planning services should be available to all women at the primary healthcare level. Health providers should be trained to provide women with effective counseling as well as with the proper service delivery skills.
- Further research is needed to understand why women who want to delay or stop childbearing are not using contraception in order to design interventions that will address this issue and potentially reduce the high rates of unwanted and mistimed pregnancy in the oPt.

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