Factors affecting the family planning methods used by the currently married women in rural Egypt

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Abstract

Communities with high fertility rate and large number of unwanted pregnancies can have many problems that harm not just the women but also children and families, affecting their quality of life and impeding long-term economic and social development.

Egypt government has articulated the achievement of universal coverage of basic health services for all of its citizens. All these health reform plans are expected to have a positive effect on the health of women and children. The ministry of health population (MOHP) in Egypt has also stressed the importance of integrating family planning and maternal and child health.

Basic theme in this study was emerged from the inequality in the family planning use between the upper and lower rural areas, as the (DHS,2005) concluded a rural-urban differences in contraceptive use presented in the following percentages: 62.6 % in urban areas, 56.8 in rural areas, and it was 66.5 in Lower Egypt and only45.2%in the Upper Egypt. The married women in rural areas in Egypt applied a descriptive study to describe the demographic data and to explore the factors affecting the uses of family planning. Secondary analysis was done to the data available in the DHS from which the study variables were identified and selected. Results indicate that the proportion of women practicing family planning varies by the general status of the mothers as age, region, working conditions, educational level, the number of children and others. These significant explanatory variables explain some variation between communities; it is

found that women in rural areas of Upper Egypt are using family planning methods less than women in the Lower Egypt.(DHS,2005) Empowerment of low status women is an important issue that should be emphasised through education and working opportunities, and to encourage them to use family planning for their health and for the health of the children. More concern should be taken by the Policy makers for the Upper Egypt to find out certain strategies that can help in increasing the use of family planning by women living in Upper Egypt.

Key words: family planning, rural area, Egypt, disparities.

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Introduction

India was the first country to start family planning program long back in 1952. In the first 50 years there have been many changes.

The name of family planning program was changed to family welfare program and lastly to the present Reproductive and Child Health.

The changes were done to increase the acceptance of family planning methods.

International conference on population and Development (ICPD) endorsed the Definition of reproductive health as a state of physical, mental, and social well-Being in all matters relating to the reproductive system at all stages of life. Good reproductive health implies that people are able to have a satisfying and safe have the capability to reproduce and the freedom to decide if, When, and how often to do so. Men and women should be informed about and have access to

safe, effective, affordable, and acceptable methods of family planning of their choice, and the right to appropriate health-care services that enable women to safely go through pregnancy and childbirth An estimated 600000 maternal deaths Occur worldwide each year, 99% of them in developing Countries The World Health Organization estimates that 13% of these are due to Unsafe abortions. Worldwide, approximately 50 million women resort to induced Abortion each year, frequently resulting in mortality and adverse health Consequences [*1, 3]*

Other causes of high maternal death rates in developing countries include complications of pregnancy and complications of childbirth. In Sudan, maternal and infant mortality and fertility indicators are among the highest in the Region. Maternal mortality is estimated at 600 per 100 000 live births and infant mortality at 70 per 1000 live births; the fertility rate is estimated at 4.6 children per woman [*4*] Communities with high fertility rate and large number of unwanted pregnancies can have many problems that harm not just the women but also children and families, affecting their quality of life and impeding long-term economic and social development.

It was estimated that 600 000 maternal deaths occur worldwide each year, 99% of them are in developing countries (Population References Bureau, 2003). Extensive evidence shows that family planning is a good investment for governments, fewer babies mean improved health status for families, lower costs of maternal/child health care and of education, and higher worker productivity (5)

The Egyptian health system faces multiple challenges in improving and ensuring the health and well-being of the Egyptian people. The system faces not only the burden of combating illnesses associated with poverty and lack of education, but it also respond to emerging diseases and illnesses associated with a modern, urban lifestyle.

The government of Egypt has articulated as its long-term goal the achievement of universal coverage of basic health services for all of its citizens. All these health reform plans are expected to have a positive effect on the health of women and children. The MOHP has also stressed the importance of integrating family planning and maternal and child health.

Although Countries have a large differences in use of family planning a wide variation may exists within countries and across sub-regions. In particular for this study is Egypt, it is found that women living in upper rural areas tend to use fewer contraceptives and have more children than their urban or lower rural counterparts, which may contribute to the health status and the social and economic circumstances of the country. In recent study of (6) it was concluded that there is a rural-urban differential in contractive use recorded as follows:62.6 % in urban areas, 56.8 in rural areas, and it was 66.5 in Lower Egypt and 45.2% in the Upper Egypt. The study try to explain the disparities between upper and lower rural in Egypt regarding family planning use, these disparities may be due to deficiency and poor quality in health care services and social services as literacy programs and small project.

In addition it is found that during the past 25 years, fertility rate in Egypt has decreased From 5.3 births at the time of the 1980 to 3.1 births at the time of the 2005 DHS, and Figures are higher in rural areas than the urban areas, as it is shown that the fertility rate is 3.4 births to 2.7 births. In Upper Egypt Fertility levels are highest 3.7 births.

Basic theme in this study was emerged from this inequality in the family planning use between the upper and lower rural areas, this problem worth's studying as it is intended to describe the factors that affect the use of Family planning and contribute to this difference, with special attention to the demographic data including the wealth status, educational level, and the occupation of the mothers. Results are expected to be useful in exploring the factors that may

largely affect the use of family planning among Egyptian women in rural areas.

This study aims to:

Assess the socio demographic characteristics of the married women in Egypt: through explore the factors that mostly affect family planning use among married women and assess factors related to disparities in use of family planning methods by married women in Egypt.

Methodology

Study design

Secondary analysis of EdHS data 2005.

Tool of the study: questionnaire and interviews was applied by the DHS in 2005to collect the required data as Demographic and reproductive Health Data about Family Planning, Breast Feeding, Mother and Child Health …etc,) Data was collected and computerized for future uses. The section including the family planning use was selected and studied well by the researchers and the data was analyzed.

Sample size:

This study includes currently married women in reproductive age (15-49) in rural areas in Egypt

Dependent variable (out come): Current use of family planning methods by married women in rural areas in Egypt.

Independent variables:

Socio-demographic factors : age of the women, age at marriage, and duration of marriage.

women status: Factors affecting the use of family planning as women's of occupation, husband's occupation, Child preference, number of living children, educational level for the woman,

education of husband, and wealth. Residence: (upper and lower rural area).

Analysis plan

As the source of data is the demographic and health survey of 2005 in Egypt, which was collected in a well known process by fulfilling a questionnaire and interviewing the women in the reproductive age, our role in this part is to revise the available data and to do Secondary analysis for the proposed variables of the study Computer Package.

SPSS program (version 12) will be used for data analysis, using frequency tables, and other tests as regression and concentration index for inequity between upper and lower rural areas.

Results

Table (1): Number & percent distribution of women according to Socio-demographic characteristics

Parameter	Rural Lower Egypt N=5828	%	Rural upper Egypt N=4790	%	Total N=10618	%	Chi
Age (years):							
15-19	**258**	**4.4**	**342**	**7.1**	**600**	**5.7**	
20-39	**4170**	**71.5**	**3429**	**71.7**	**7599**	**71.6**	
40-49	**1400**	**24.0**	**1019**	**21.2**	**2419**	**22.8**	
Educational level							
No education	**1985**	**34.1**	**2653**	**55.4**	**4638**	**43.7**	
Primary	**977**	**16.8**	**770**	**16.1**	**1747**	**16.5**	
Secondary	**2520**	**43.3**	**1230**	**25.7**	**3750**	**35.3**	
Higher	**344**	**5.9**	**136**	**2.8**	**480**	**4.5**	
Marital duration							
0-4	**1433**	**24.6**	**1114**	**23.3**	**2547**	**24.0**	
5-9	**1219**	**20.9**	**1044**	**21.8**	**2263**	**21.3**	
10-19	**1715**	**29.5**	**1320**	**27.6**	**3035**	**28.6**	
20+	**1459**	**25.1**	**1310**	**27.3**	**2769**	**26.1**	
Age at first marriage							

8-12	**107**	**1.8**	**195**	**4.1**	**302**	**2.8**	
13-17	**1699**	**29.2**	**2393**	**50.0**	**4092**	**38.5**	
18+	**4020**	**69.0**	**2200**	**46.0**	**6220**	**58.6**	
Number of living children							
0	**575**	**9.9**	**516**	**10.8**	**1091**	**10.3**	
1-2	**2087**	**35.8**	**1440**	**30.1**	**3527**	**33.2**	
3-4	**2328**	**40**	**1471**	**30.7**	**3799**	**35.8**	
>4	**836**	**14.3**	**1362**	**28.4**	**2198**	**20.7**	
Wealth							
Poorest	**1021**	**17.5**	**1904**	**39.8**	**2925**	**27.5**	
Poorer	**1543**	**26.5**	**1439**	**30**	**2982**	**28.1**	
Middle	**1625**	**27.9**	**929**	**19.4**	**2554**	**24.1**	
Richer	**1248**	**21.4**	**352**	**7.4**	**1600**	**15.1**	
Richest	**389**	**6.7**	**165**	**3.4**	**554**	**5.2**	

Description of socio demographic data

This study shows that there is a difference in the educational level between the upper and Lower Egypt; it is found that there is a larger percentage of un educated women in upper rural Egypt in relation to the lower which was 55.4 % to 34.1%, While those who are educated to the secondary level are only 25.7% in Upper Egypt to 43.3% in the Lower Egypt.

In concern to the age at first marriage there is a clear difference between the two regions in which it is found that 50% of women got married at the age of 13-17 years in Upper Egypt to 29.2 % in Lower Egypt. Comparing the mothers by the number of their children results shows that the percentage of women having more than 4 children is 28.4% in Upper Egypt to 14.3 in Lower Egypt.

In contribution to the wealth it is found that the upper area are living in less wealth conditions than the lower, the percentage of poorer was 39.8 in the upper to 17.5 in the lower, and the richer was 7.4 in the upper area to 21.4% in the lower Egypt .

Table (2): Family planning use according to women status in rural Egypt, EDHS 2005

Parameter	Rural Lower Egypt N=5828			Rural upper Egypt N=4790		
	Total	Use	%	Total	Use	%
Age (years):						
15-19	258	76	29.5	342	58	17
20-39	4170	2866	68.7	3429	1654	48.2
40-49	1400	934	66.7	1019	453	44.5
Educational level						
No education	1985	950	47.8	2653	1107	41.7
Primary	977	690	70.6	770	392	50.9
Secondary	2520	1616	64.1	1230	594	48.3
Higher	344	207	60.2	136	72	52.9
Marital duration						
0-4	1433	599	41.8	1114	311	27.9
5-9	1219	872	71.5	1044	457	43.8
10-19	1715	1389	80.9	1320	753	57.0
20+	1459	1017	69.7	1310	643	49.1
Age at first marriage						
8-12	107	80	74.8	195	93	47.4
13-17	1699	1201	70.7	2393	1090	45.5
18+	4020	2597	64.6	2200	982	44.6
Number of living children						
1-2	2087	1352	64.8	1440	585	40.6
3-4	2328	1915	82.3	1471	843	57.3
>4	836	610	73	1362	737	54.1
Wealth						
Poorest	1021	713	69.8	1904	840	44.1
Poorer	1543	1074	69.6	1439	606	42.1
Middle	1625	1081	66.5	929	418	45
Richer	1248	776	62.1	352	201	57.1
Richest	389	234	60.2	165	100	60.2
Religion						
Muslim	5758	3828	66.5	4412	1957	44.2
Christian	66	47	71.2	369	206	55.8
WOMEN Work status						
Not work	4448	2882	64.8	4071	1767	43.4
Work	1365	985	72.2	706	394	55.8
Husband education						
No education	1290	898	15.4	1570	609	12.7
Primary	1241	845	14.5	998	483	10.1
Secondary	2684	1726	29.6	1861	876	18.3
Higher	607	403	6.9	349	195	4.1

Uses of family planning in the lower and upper Egypt in relation to the following

indicators:

Age group

This table shows a wide difference in the use of Family planning methods between the upper and Lower Egypt; it is found that 48.2% of the age group 20-39 in the Upper Egypt use Family planning methods to 68.7% in the Lower Egypt for the same age group.

And those in the age of 40-49 years the level also varies from 44.5% in the upper to 66.7% in the Lower Egypt.

School educational level

The use of family planning methods in relation to educational level of the mother is still higher in Lower Egypt than upper, as noticed that 48.3% percent of the secondary educated mothers use FP in the Upper Egypt to 64.1% in the lower, and for higher education it was 52.9%in upper to 60.2% in the lower.

Marital duration

The table shows that there is a difference in the use of family planning in all the evident categories of marital durations, in duration of 5-9 years 71.5% use family planning in lower Egypt to 43.8%in upper Egypt, and for the duration of 10-19 years table shows 81%of women use family planning in lower Egypt to 56.2% in lower Egypt.

Age at first marriage

This table shows a wide difference in the use of Family planning methods between the upper and Lower Egypt; in relation to age of first marriage it is found that 47.4% of the age of marriage 8-12 in the Upper Egypt use Family planning methods to 74.8 % in the Lower Egypt for the same age of marriage.

And those in the age of marriage 18 years and more the level also varies from 44.6% in the

upper to 64.6% in the Lower Egypt.

Number of living children

For those having 3-4 children, in the upper area 57.3% use FP in relation to 82.3% in the lower, and it was also different for those having more than four children percentage was 73% in the lower to 54.1% in the upper Egypt.

Wealth& Religion

This table shows that there is a little difference between the use of family planning in upper and Lower Egypt in relation to the wealth, as there is a difference in the poorest group of women use family planning is 69.8% in the lower to 44.1% in the upper Egypt.

The use of family planning for Moslem was 66.5%in the lower Egypt to 44.2 in the upper, and for Christians' it was 71.2 in the lower to 55.8 in the upper Egypt.

Women work status ;

There was a clear difference between the working and non working mother in relation to the use of family planning, the percentage of non working women who use family planning methods was 64.8% in the lower to 43. 4% in the upper, and the working women who use family planning percentage was 72.2% in the lower to 55.8 % in the Upper Egypt.

Husband education

The husband education to secondary level seems to make a difference between the upper and lower regions of Egypt as it is shown in the table that percentage of this group who use FP methods is 29.6% in the lower to 18.3% in the Upper Egypt.

Table (3); regression equation used to explore the significant relation of women status with the family planning use

Parameter	B	Sig.	Exp(B)	95.0% C.I. for EXP(B)	
				Lower	**Upper**
Region	-.366	.000	.694	.671	.717
Age	-.054	.001	.947	.917	.978
Education		.000			
Primary	.323	.000	1.381	1.211	1.576
Secondary	.309	.000	1.361	1.189	1.558
Higher	.413	.005	1.511	1.134	2.014
Religion	.606	.000	1.834	1.459	2.305
Wealth		.930			
Poorer	.094	.453	1.098	.860	1.403
Middle	.094	.440	1.098	.866	1.392
Richer	.062	.602	1.064	.842	1.345
Richest	.094	.445	1.099	.863	1.399
No of living children		.000			
(1-2) children	-9.204	.000	.000	.000	.002
(3-4) children	-.955	.000	.385	.321	.462
(>4) children	-.104	.143	.902	.785	1.036
Marital duration		.000			
5-9 years	-.421	.369	.657	.262	1.645
10-14	-.138	.732	.871	.394	1.923
15-19	.360	.276	1.434	.750	2.742
20-24	.602	.020	1.826	1.100	3.029
25-29	.952	.000	2.592	1.771	3.792
30+	.553	.000	1.739	1.316	2.299
Working status	.216	.000	1.241	1.100	1.399
Partner education		.000			
Primary	-.412	.000	.662	.533	.824
Secondary	-.207	.065	.813	.653	1.013
Higher	-.223	.024	.800	.659	.971
Partner age	-.008	.082	.992	.984	1.001
Age at marriage	.028	.103	1.028	.994	1.063
Constant	2.860	.000	17.459		

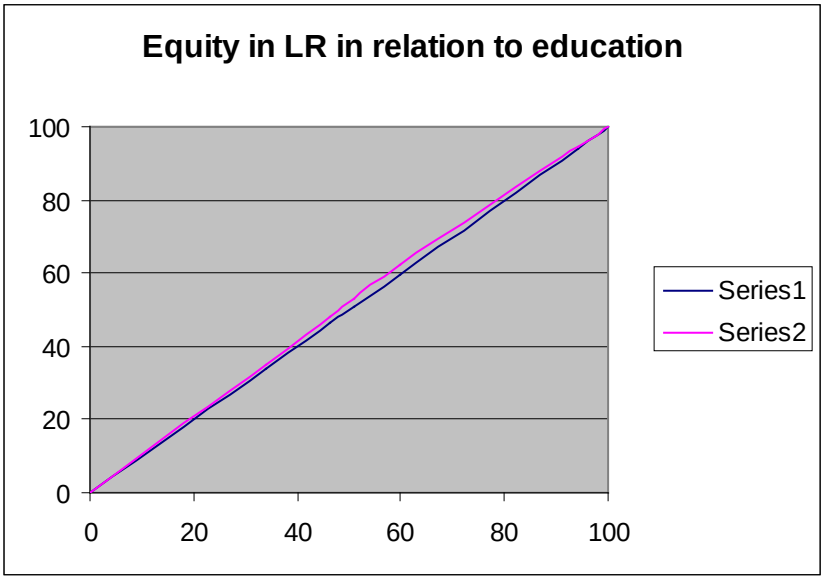

Figure (1)

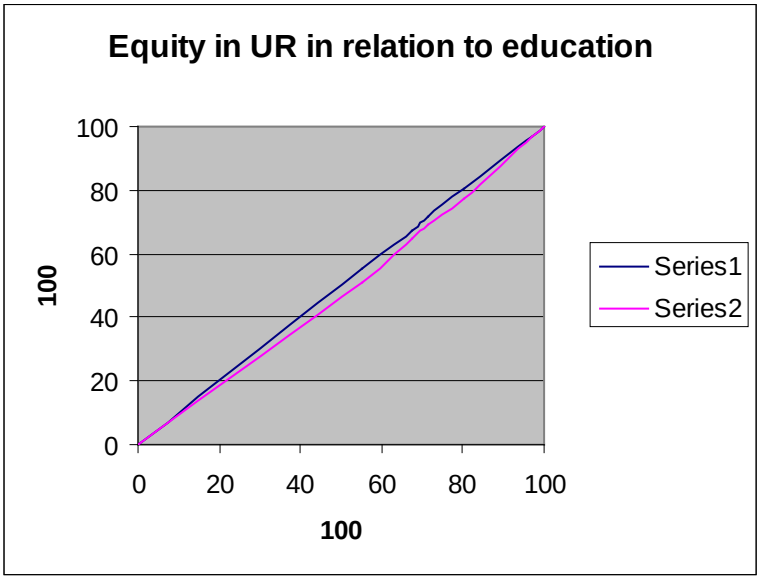

Figure (2)

These results are expressed by the regression table:

1- Region significant difference, odd's ratio 0.694 meaning that residence significantly affects the non use of F.P

2- Age of women is significant

3- Education significant.

4- Religion significant.

5- Partner education significant.

6- Number of living children was significant.

7- Occupation significant.

8- Wealth was not significant

9- Partner age not significant

10- Age at marriage not significant

Table three of the results

Includes the Concentration index that was used to distinguish the upper and lower rural areas in relation to family planning use and education, to express out the inequality in the family planning use .result gives a slight degree of inequality between the two regions the inequality graph is presented at the following papers.

Discussion

This descriptive study was conducted in Egypt , to explore the use of family planning methods by the currently married women in rural areas in lower and upper Egypt , as it was expected that the women in upper Egypt tends to use family planning less than the lower Egypt.

Through secondary analysis of the data that was collected by the DHS 2005, results shows a

highly correlation between the use of family planning and the mothers status of living as education ,occupation, age ,wealth, and especially place of residence.

Family planning use and education

Educational level of the mother and her husband has been identified with a highly significant relation to the use of FP, as previously shown in the presented tables, and this is especially the case in the study of (7) that was done in Lesotho which conclude that the woman's level of education is a very strong predictor of increase in contraceptive use. A significant difference at the 5% level is observed between women with none or primary education and at the 10% between women with secondary education and those who are highly literate.

This, therefore, indicates that with higher levels of education women appear to demand contraception and to be autonomous enough to obtain and use it.

Other studies match the results of mother education and use of FP, as the study of (Cambodia Demographic and Health Survey (8) stated that those with secondary or higher education are more likely to use modern methods (23 percent) than those with no education (16 percent).

Using contraceptive methods are observed to be highly significant for women whose partners attained secondary education and are working and the lowest is observed for those whose partners have no education and are not working. This probably reflects high knowledge of contraception and potentially high opportunity costs of unplanned pregnancy for the more educated partners and for those working. This expectation in this regard is similar to those of researchers in Lesotho (9).

Religion

Results of this study shows a significant relation in Islamic religion and the family planning use, and the percentage of Christian use in upper Egypt is higher than lower use as the Christian number is more in the lower than the upper Egypt. Thus Islam is not opposed to family planning, as was demonstrated at the Seminar of Islam and Family Planning held in Dakar in(11) Islam is religion of tolerance and good sense, which authorizes anything that can contribute to the growth of the individual and the nation, unless it is explicitly interdicted by a text. (11)

Some texts demonstrate that the Prophet explicitly recommended spacing of births. The conclusion of the Dakar conference was that family planning is authorized by the "sunna" but only on legitimate social, economic, and health grounds.

Number of living children

A positive relationship is also observed between contraceptive use and number of living children, these results was also confirmed by (10) in which it was stated that Contraceptive use is at its lowest when women start their reproductive career, increases as more of them use contraception for child spacing and increases even further as they achieve their reproductive goals and use contraception for limiting purposes.

Wealth Group

The trends in contraceptive use by wealth group at the regional level varies to a considered degree between the two regions upper and lower rural areas in Egypt, which is similar to those in the three countries In (mail, Burkina Faso ,and Ghana) in west Africa. (11) Prevalence in each of the three groups (the poorest, middle, and wealthiest, by household assets) is higher than levels observed within the three groups at the regional level. In comparing the prevalence

between the middle quintile in Ghana and the West Africa region, the difference is 12 percentage points higher. This difference may be due to variations in health systems, economies, and knowledge about family planning in (12).

Residence

Differences are, however, observed for different communities In different regions, in Egypt the difference is clearly appeared between the upper and lower rural areas women in lower Egypt tends to use family planning more than those in upper Egypt. With some communities in Maseru and the southern.

Region having higher confidence intervals that do not overlap with lower

Confidence intervals in the mountainous region, indicating that communities

In Maseru and the southern regions have relatively higher rates of

Contraceptive use. It is also observed that among the communities whose

Confidence intervals do not overlap; the higher ones are in the urban areas and the lower ones in the rural areas, also showing that urban communities have higher contraceptive use than rural communities

Age group

The Age group shows a little difference to the use of family planning, and the relation is not clearly appeared, while other studies (10)stated that contraceptive use is at its lowest when women start their reproductive career ,and increasing gradually, it is found that Married women ages 35 to 39 have the highest rate of modern contraceptive use (25 percent), while married women ages 15 to 19 have the lowest (6 percent), followed by women ages 45 to 49 (8 percent).

Conclusion

The main issue of this study was to explore the women status that contribute to the percentage of family planning use especially in the upper rural areas in Egypt .Results was congruent with other studies that reflects the educational status and the working conditions of the mother and her husband which can influence the use of family planning to large degree.

The significant community variance between the upper and lower rural areas in Egypt was another issue, results indicates that in upper Egypt women tend to use less family planning than the lower Egypt, other studies can tell that even after controlling for social and demographic factors, there still remains unexplained variation in the use of family planning at the community level.

Recommendation

- More efforts' in education for both men and women, in especial communities as rural Upper Egypt.
- provide women with working opportunities, which will have significant impact on increasing the use of family planning methods.
- Facilitate women awareness in Family planning methods in early marital age, that can increase their use of these different methods.
- promote premarital counseling programs to enhance family planning use.
- Results of the study can be used to contribute to the development of services, policies or knowledge in the area of family planning.
- Future studies are also recommended for the quality and the accessibility of health care

providers and health care service

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