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Trends and Determinants of Contraceptive Use among Young (15-24 Year) Married Women: A Secondary Analysis Based on the 2008 and 2014 Egypt Demographic and Health Surveys

Essam A. El-Moselhy[1*], Farag M. Moftah[2], Manal M. Darwish[2], and Alyaa H. Abo-Rahma[1]

Department of Public Health and Community Medicine
Faculty of Medicine, [1]Al-Azhar and [2]Assiut University

[*]Corresponding author: Dr. Essam A. El-Moselhy, Prof. and Head of Public Health and Community Medicine, Faculty of Medicine, Al-Azhar University, e-mail: dr_elmoselhy@yahoo.com and dr.elmoselhy@azhar.edu.eg

ABSTRACT

Background: young females in Egypt still face a number of challenges regarding their reproductive health (RH) despite efforts to enhance it. Importance of young women's reproductive choices arises from the concept that early childbearing can impair their health and their productive participation in community. **Aim**: the paper aimed to explore the key determinant of the contraceptive (CC) use amongst young married females in Egypt using the 2008 and 2014 Egypt Demographic and Health Survey (EDHS) with a comprehensive look at the CC use changes occurred in the study period 2008-2014. **Subjects and Methods**: data from the 2008 and 2014 EDHS were secondary analyzed. Variables were selected to assess their effect on CC use. Multivariable regression analyses were performed. Odds ratio was computed. **Results**: overall contraceptive prevalence (CP) decreased from 53.7% in 2008 to 51.2% in 2014. Traditional methods were responsible for this decrease. Younger age, being from rural Upper Egypt, husband desire for more children, no visit to health facility were the most important risk factors for not using any CC method among Egyptian young married females in 2008. Added to these factors; low women autonomy, no exposure to family planning message, in the poster and women justifying husband violence in 2014. However, region lost its significance as a determinant in 2014. **Conclusions**: our results discovered the determinants that modulate the CC use behavior among Egyptian young married females.

Key Words: Contraceptive use, Trend, Determinants, young married females, Egypt Demographic Health Survey.

INTRODUCTION

According to the **United Nations** [1], 64.0% of married or in partner-relationship females in the reproductive age worldwide were using some form of contraception. However, contraceptive prevalence (CP) was much lower in the least developed countries.

In Egypt, one in five people is between the ages of 15 and 24 with a total number of 16 million in 2012. Preparing these young people for the time when sexuality and reproduction are central, is necessary [2].

The 1994 International Conference on Population Development was held in Egypt; where the concept of reproductive health (RH) was laid [3]. Egypt demographic data show that many reproductive outcomes get better between 1990 and 2013; Egypt decreased its maternal mortality ratio from 120/100,000 in 1990 to 45/100, 0000 in 2013 [4].

Adolescent fertility is still high leading to higher levels of maternal mortality [4] and low birth weight infant [5]. Low educational level of women and poor economic status constitute the major socio-economic factors favor adolescent childbearing in Egypt [6].

Despite CP in Egypt increased rapidly in the 1980s, to reach 60.0% in 2003,but since 2003, CC use rate didn't changes ignificantly contrasted the expectation, swing between 59.0% and 60.0% [7].

Political events in Egypt since January 2011 revolution added further challenges to Egypt in the aspects of maternal health [4]. The socio-political transition decreased access to family planning (FP) services and added barriers to high-quality public health services [8].

The reproductive choices taken by young females have a great effect on their health, education, and work prospects [9].

This paper is an attempt to examine the determinants regulates contraceptive (CC) use among Egyptian young married women. Also, it aims to discover CC changes and trends in Egypt. Also, it aims to guide reproductive health (RH) program planners and policy-makers to implement RH programs that will

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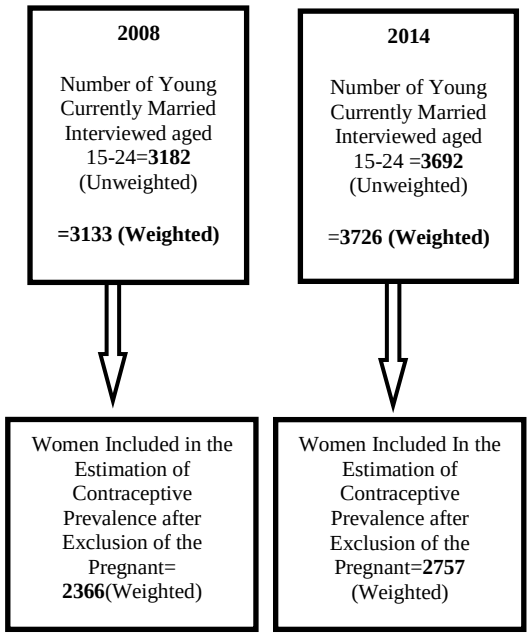
decrease fertility leading to decrease maternal morbidity and mortality.

SUBJECTS AND METHODS

Study design: A secondary analysis relied on the 2008 and 2014 EDHS.

Sampling of data set: The DHS surveys are large nationally representative, household surveys relied on a multistage complex cluster sample. The respondents selected in Egypt are ever married women in childbearing age [10].

Study population: The study population consisted of currently married, young women aged 15-24 years. To measure the CP, pregnant women were excluded as they are not currently users.



Box (1): Sample Selection Procedure

Key Variables and Measurements

Dependent variables: CC use, a woman who currently uses any CC method. For the analysis, a dichotomous variable was constructed with the value of 1 represented "Yes" if a woman use modern or traditional and 0 if a woman said "No", women who said that they are pregnant excluded from the analysis of CP.

Independent variables: We follow the conceptual framework based on the literature review [11], which underlined the association among demographic, socioeconomic, cultural, husband-wife relationship, and programmatic factors and contraceptive use (box **2**).

Statistical design: Firstly, after the registration on the DHS website, the data was downloaded and then relevant variables for analysis were identified and recoded.

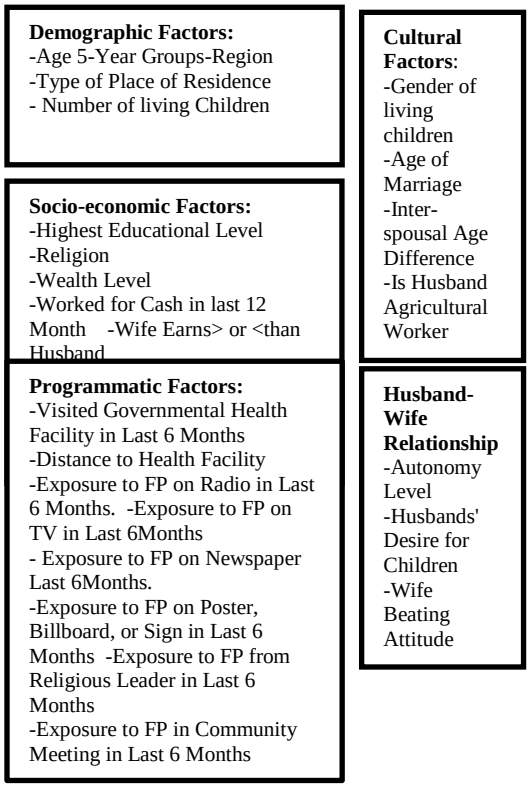
Sample weights were used to restore the representativeness of the sample in frequencies and cross tabulation but not in correlation and regression tests as described by DHS manual book [10].

Three levels of statistical analysis were used: univariate, bivariate, and multivariate. The descriptive statistical technique was used at the univariate level to describe the background characteristics of the sample.

In the bivariate level, the Pearson's Chi-square (χ^2) test was used to examine the association between the dependent variable and the explanatory variable. Fisher's exact (**FE**) test was also used when appropriated.

Trend and the differences between the two surveys and its significance are tested by Pearson's χ^2or **FE** test when appropriated.

The third level was the binary logistic regression. Factors that showed unadjusted odds ratio (**OR**) with a P-value <0.25 were subjected to multivariate logistic analysis. Separate models were fitted for each survey.



Box (2): Predictor Variables for Contraceptive Prevalence Indicator [11].

Correlation, multicollinearity, and inter-action between possible related factors were assessed. Collinearity was excluded if the

variable correlation >0.8 or variance inflation factor (**VIF**) > 5 [12].

Any factor had missing cases ≥5.0% of the sample; it was un-involved in the final regression.

All tests were two-tailed and statistical significance was considered for P-values <0.05 and all analysis performed by Statistical Package for the Social Science (SPSS) version 20.

Ethical Consideration

We registered and requested data from DHS on-line archive. We received an approval to download de-identified DHS data files.

RESULTS

Table (1) clarifies the background characteristics of the studied women in EDHS 2008 and 2014.The highest proportions of the studied women in EDHS 2008 and 2014 were from age group 20-24; 80.7% and 80.0%, respectively. The highest proportion of the women had secondary education; 60.4% in 2008 and 71.3% in 2014 (P <0.05). The results revealed a steady downtrend in females with no formal education from 21.7% in 2008 to 10.8% in 2014, which was a significant event.

Regarding the residence, the majority of the women were residing in rural areas (70.9% in 2008 and 77% in 2014); mainly from the rural Lower Egypt, while the least proportion was women from Frontier Governorates.

In 2008, the highest and the lowest proportions of women were in the lowest and highest wealth quartiles, respectively, but in 2014 the lowest and highest groups had the same proportions.

Results in **table (2**) reveal an insignificant downward trend in the overall CP. Steady pattern trend in the modern method was noticed but the downward trend of the traditional method was significant. The CP among Egyptian young married not pregnant females was 53.7% in 2008 and 51.2% in 2014.

Table (3) clears the type of method used among the users. There is an upward trend in pills method and a downward trend in the intra-uterine device (IUD). IUD appeared to be the most popular, used by 55.6% of the women using any method in 2008 and 45.7% in 2014, followed by oral pills. Noticeable significant descent occurred in IUD method faced by a significant ascent in the pills.

Table (4) shows the level and trend in the demographic factors and their association with CC use. The downward trend was noticeable regarding nearly all demographic factors, only females came from urban Lower Egypt showed rising in the use by 6.0% point difference in 2014. These downward changes were statistically insignificant except in women who had one child, it dropped significantly by 8.9% point difference from 64.6% in 2008 to 55.7% in 2014.

Demographic factors' effect on CC use:

In 2008:

All demographic factors were highly significantly associated with overall CC use and with the modern use. CCs use and modern methods increased with age, females in 20-24 age group had the largest percent in the CC use. Being from urban area was significantly associated with higher rates of use. Region showed significant variation in the use, in 2008 region that had the largest percent was Urban Governorates by 64.9%, while rural Upper Egypt showed the lowest percent, 41.7%. Also, a number of living children showed significant variation, females with 2 children had the highest percent of use. The modern method showed the same trend and variation that shown by any method.

In 2014:

The same pattern as in 2008 except the region, urban Lower Egypt replaced the Urban Governorates in the largest percent of CC usage in 2014. Rural Upper Egypt kept its order as the least percent in the CC use.

Trend regarding the socio-economic factors:

Regarding socio-economic factors **(table 5)**; a downward trend in the number of CC users among primary educated females with 15.6% points decline was noticed.

The percent of users married to uneducated husband rose significantly by 9.8% points faced by a significant decline among women married to secondary educated husband by 3.6% points that is considered a significant event.

Socio-economic factors' effect on CC use:

In 2008:

Females' education showed a significant variation in 2008 with the highest percent was among primary educated. Wealth level showed a significant variation with the largest percent of users was in high wealth standard. Media score and husband education had a significant association in 2008 only. Religion and female work not showed any significance. Modern methods showed the same trend and variation as any method.

In 2014:

Females' education also was a significant factor in 2014 but the highest percent of CC use was in secondary educated females. Wealth level showed a significant variation in 2014, with the same pattern as in 2008, with the largest percent of users was in high wealth standard. Religion and female work did not show any significance in the contraception use in 2014 as in 2008. Husband education and media score were significant factors in 2008 but not significant in 2014. Social media, which is a variable added recently in EDHS 2014 showed insignificant association with CC use and with modern method (P=0.09). Social media here referred to Facebook or Twitter using.

Level and trend of CC use regarding cultural factors:

Table (6) clears gender of living children as an important element in cultural factors; it showed a significant decrease in CC use among women having more daughters than sons by 8.6% point difference in 2014. The CC use dropped in women having more daughters from 66.8% in 2008 to 62.3% in 2014. From 2008 to 2014significant decrease was noticed among females with age of marriage <18, among females whose age difference with their husbands ≥7 years and among those that their husbands not agricultural workers.

Cultural factors' effect on CC use:

In 2008:

Cultural factors in this study showed insignificant association with the CC use or modern method in 2008.

In 2014:

Gender of living children was the only factor that significantly associated with CC use and modern method in 2014. Egyptian young married females who had children with equal gender by 67.7% had the largest percent in the CC use by 66.5% followed by females who have more sons than daughters by 62.3%. At the end of the list came the females who have more daughters by 58.2%.

Level and trend of the CC use regarding the husband-wife relationship factors:

Table (7) clears that CC use when husband desire for fewer children significantly increased by 17.8 point difference, it was 60% in 2008 and became 77.8% in 2014. Women justify wife beating had a significant declining trend in the CC use. The percent decreased in 2014 by 8.5% point difference.

Husband-wife relationship factors' effect on CC use:

In 2008:

Autonomy of the women and husband desire for children considered highly significant associated factors in 2008 with P=0.000. Increasing level of women autonomy resulted in increasing CC use. If husband desire tends to more children the drop occurred in the CC use. Modern methods showed the same variation as any method.

In 2014:

Autonomy of the women and husband desire for children considered highly significantly associated factors in 2014. The attitude of the female to her husband violence became a significant factor in CC use in 2014, females justify the violence had a lower percent of the CC use. Modern methods showed the same variation as any method.

Level and trend of the CC use regarding the programmatic factors:

Programmatic factors **(table 8)** found young married females visited government health facility (HF) in past 6 months, females had a big problem in the distance to HF, and females exposed to FP message in TV showed a significant declining trend.

Programmatic factors' effect on CC use:

In 2008:

Visited government health facilities in last 6 months, exposure to FP message in TV and exposure to FP message in the poster were highly significantly associated with the CC use and with the modern method use in 2008. These factors increased with the CC use increase. The significance with newspaper confined to any method with P=0.049 but not with the modern method.

In 2014:

Distance to HF appeared in 2014 to be a highly significant factor with CC use. Females with no problem or small problem were more in the percent of usage than who had a big problem. Visited government health facilities in last 6 months and exposure to FP message in the poster were highly significant factors in 2014. Modern methods showed the same variation and the pattern as any method.

Results in **table (9)** after adjusted with other variables reveal three predictors of CC use among women in the both EDHS 2008 and 2014. The determinants or the CC use in the young married females were age of the mother,

husband desire for children, and visiting the government HF in the last 6 months.

These findings can be summarized: Women in the age group 20-24 had increased OR of CC use compared to those with age group 15-19 during 2008 and 2014 (P <0.001). Women with age group 20-24 were nearly 2.5 times as those of age group 15-19 in CC use, but OR was more in 2008 than 2014 (2.52 vs. 2.36).

When the husband needs more children, the wife became less likely used a CC method, the OR was 0.77 in 2008 and 0.74 in 2014, than if husband and wife want the same. When the husband wants fewer the CC method use increased more than double in 2014 with OR=2.51 but in 2008 the OR of CC use among women with husband wants fewer was in-significant.

Highly significant determinant was the visiting of the government HF with P<0.001 in both 2008 and 2014 as the CC use among women who had visit in past 6 months nearly 2 times more than who had no visit in 2008 and nearly 1.5 time in 2014 (OR=1.94 in 2008 and 1.69 in 2014).

1n 2008:

The determinant, which was significant but worth noting in 2014 was region; women from rural Upper Egypt were 57% less likely (OR= 0.43) users than those in Urban Governorates. Significant interaction was found between autonomy and education in 2008 only, primary educated highly autonomous females were nearly 3.5 times more likely CC user than those with no education, low autonomy. The inter-action between wealth and education showed no significance in the CC use.

1n 2014:

The determinants, which were significant but worth noting in 2008 were: women autonomy, wife beating attitude, and exposure to the FP message in the poster in the last 6 months. Highly autonomous women were 2 times more likely used CCs than those low autonomous, women not justify husband violence against them were higher in using with OR=1.21 than those that justify violence, women exposed to the FP message in poster in the last 6 months were nearly 1.5 time more likely to use CC method. No interaction was found between autonomy and education or wealth and education in 2014 regarding their effect on the CC use.

DISCUSSION

The present study recruited the young (15-24 years) married Egyptian females to portray the trend and determinants of their CC use.

The sample composition in this study is consistent to some extent with the estimates from 2008 and 2014 EDHS regarding the age groups, type of place, and religion [7]. But regarding the education, number of living children, and work status the proportion differed in the present study. Our sample based on young females that will logically show less number of children, less proportion of working, and a higher standard of education. In Egypt, job opportunities declined significantly for young women despite the educational level increase[13]. The proportion of women reporting that they are not working for cash in our sample was over 95% in the both surveys, which is consistent with the low labor participation rate in all Egyptian women during the time period of 1992-2008, which was less than 30% [14].

Wealth level in young married females showed a significant decrease in the percent of low wealthy females. This decline is in favor of the middle wealth standard that increased significantly by nearly 7% point. High wealth standard showed insignificant changes, whether increase or decrease, across the study period and this may be explained by that Egyptian economy is now experiencing the consequences of two noteworthy major events: continuous political instability following the January 2011 revolution and the decline in global growth subsequent to the 2008 financial crisis [15].

Regarding the trend and changes occurred in the period from 2008 to 2014 in the CP:

The overall CP among the Egyptian young married not pregnant females at 2014 was 51.2%, lower than the global percent reported by **United Nation** [1] in 2015 worldwide, 64% of married or in-union women of reproductive age were CC users, but higher than the percent reported in overall Africa, 33%. CP among young married females has experienced a marginal negative change from 53.7% in 2008 to 51.2% in 2014. This decrease by 2.5% point difference was statistically not significant (P= 0.08). It is not a haphazard event, as it well known that the global investment in FP is presently lower in all respects than in 2000 [16].

Traditional methods showed significant downward trend by 2.7%. This downward trend in the traditional method gave the explanation

for the overall decline in the contraception use in Egyptian young married females in 2014. This finding is consistent with a study in 2010 at sub-Saharan Africa that showed that in many countries of the region, use of traditional methods has declined [17]. In Egypt, we can say that CC use is chiefly modern and not traditional.

Egyptian young married female tend to prefer pills than IUD. Although IUD persists as the most popular method among users in the studied sample by 45.7%, but also showed noticeable drop in 2014 (10% point difference) compared to 2008.Pills showed a significant upward trend in 2014 by 11.8% point difference and this is consistent with **United Nation**[1] report in 2015 about trends in CC use world-wide that stated "large regional differences in the use of some types of contraception but the short-term and reversible methods, such as the pill, injectable, and male condom, are more common than the other methods in Africa".

The present study revealed that the major subgroups showed significant drop in CC use in 2014 were females with one child, primary educated females, and those with; secondary educated husband, more daughters than sons, marriage age <18, large inter-spousal age difference and females who had positive attitude toward their husbands' violence.

The noticeable drop in the CC use that occurred among females with one child should attract our attention to large family preference in 2014. This is in accordance with the observed increase in the total fertility rate that reported in EDHS 2014 [7].

Regarding the CC use in Egypt and its determinant:

Our findings clearly indicate that the CC behavior in Egypt is influenced by a number of demographic, socio-economic, cultural factors, husband–wife relationship, and comprehensive FP programs; even though we expected that all the factors previously listed would affect FP behavior. In bivariate analysis, a lot of variables were found to be associated with CC but the multivariable regression filtrates fewer variables to affect CC use after other variables adjustment.

Regarding the demographic factors, age kept its strong association significance when other variables adjusted. Older female was nearly 2.5 times likely to practice CC use than younger female in 2008 and 2014. Perhaps, this is because older females are more aware than adolescent female who may be comparatively naive about importance of CC. This finding agrees with a study in Bangladesh [18] and differs from a study in Mali that showed no difference between 15-19 and 20-24 age groups [19].

Regarding type of place of residence, CC use was more common in urban areas and this clearly explained by that worldwide, income in urban areas is generally higher than income in the rural areas. Urban dwellers also have better access to a variety of services, including health. For policy makers, it is more efficient and cheaper to deliver health services to large concentrated populations than to populations scattered over large rural areas [20]. This finding is consistent with a study [21] in Nigeria that found the respondents from rural areas reported significantly less CC use than their urban counterparts.

Looking at each survey separately, there was a significant variation in the CC use and modern method use regarding the region. In 2008 the largest percent was coming from Urban Governorates, while the lowest from rural Upper Egypt. In 2014 the lowest percent still owned by rural Upper Egypt but the largest percent occupied by urban Lower Egypt. With controlling of all other variables, type of the place (urban/rural) and the region couldn't maintain their significance as a determinant of the CC use. This differed completely with a study in Bangladesh [22] reported that urban females are 1.5 time more likely to be a CC user.

Parity seemed to have significant association with young's CC use. In Egypt, CC users among childless females not exceed 1% in both surveys as women in Egypt began using FP only after the female has proven her fertility. In 2008 and 2014 the usage was largest in two child family followed by three and more child family and finally by one child family. This unregulated pattern is not in line with a study in Zimbabwe in 2014 [23] in which the parity seemed to have the most effect on adolescent CC use. Unfortunately, the variable of number of living children showed co llinearity with the age variable so not included in the multivariable analysis.

Regarding the socio-economic factors, we have to wonder that female's education failed to keep its significance as a determinant of the CC use after controlling other factors. Our findings differed somewhat from those of several studies

that have linked increased levels of education to increased CC use, as one study in Togo [24] and another in Ethiopia [25]. But a study in Pakistan did not find education is a CC use determinant [26]. It is not clear why education not a CC use determinant among the Egyptian young married females; it is possible that rooted norms are so embedded in Egypt that even educated women do not find value in using a method before they obtain their desired family size. In 2006, a study was done as a secondary analysis on EDHS 1988 showed the education is an important predictor of the CC use in Egypt but the level of education was not a very important factor [27].

There is no much difference in the extent of CC use between Muslims and Christians. A study was done in Sub-Saharan Africa [28] demonstrated that Muslims exceed Christians in the use of contraception in Tanzania but not in Nigeria that showed opposite result.

Wealth of the household was a significant associated factor with women's use of FP. In both 2014 and 2008 EDHS, the largest usage percent was in women coming from high wealth standard (58.6% and 56%, respectively) compared to 46.4% and 43.5% in low wealth. Traditional method usage was larger in low wealth household in both 2008 and 2014. This result was similar to a study in India [29]that observed respondents with higher socio-economic status are more likely to adopt CC method. Despite this, wealth level not retained its significance as a determinant of CC use and this finding was not in line with a study in Afghanistan that demonstrated females in high wealth level nearly 3 times more likely CC users than females in low wealth standard [30].

There is no evidence of an association between the work status and CC use. The results are surprising because it is assumed that the employment has rendered women more economically independent and the opportunity cost of having children would also be greater so the CC use would increase [31]. This is not in line with another study in South Africa proved that women who were employed likely used a CC than those that were unemployed [32].

Exposure to mass media lost its significance as a CC determinant. This may be explained by media attention toward the political situations in Egypt after the January 2011 revolution with the lack of interest to talk about FP topics.

Husband education was associated with CC use and modern methods in 2008 only. But in both surveys, husband education wasn't a determinant of CC practice. This is not in line with a study [33] demonstrated that partner's education was a strong predictor of CC use among Kenyan women.

Online social media considered as an emergent factor in RH issues and so, scarce studies analyzed this factor. Our study found insignificant association between exposure to online social network and CC use (P=0.09). The link between online social media and the CC use is coming from it is considered an important venue for CC sales and online seller see social media as a chance for reaching this younger target customer [34].

With regard the cultural factors and their effect, son preference was obvious in 2014, and it became a significant associated factor with the least CP found among those with more daughters. A study [31] in Pakistan proved that when a woman idealizes the number of children, she keeps in mind the gender of living children. If there are a larger number of female children the ideal number of children is increased.

Our results cleared that inter-spousal age difference was not a CC use determinant in both surveys and this was not in line with the previously mentioned study [31] in Pakistan that showed the lesser age difference between husband and wife, the higher women autonomy with more CC use.

It was postulated that the increase in the age at first marriage has an adverse effect on high fertility. Our finding showed that the age of marriage is not a significant factor in both surveys. But we can't neglect the significant downtrend in the CC use among females with age of marriage less than 18 years.

The husband desire for children modulates the CC use in Egypt. When the husband needs more, the CC use decreases to lower level. When the husband needs fewer children the CC use increases to a high level. This pattern was obvious in the two surveys especially EDHS 2014. Not only was that, but husband desire for child was an important determinant of CC use in both surveys. When the husband wants fewer children, CC use became 2.5timesmore likely than when couples want the same.

It is interesting to notice that although the overall CP showed a downtrend pattern in last years, but regarding husband desire for children, when husband need less, the prevalence increased from 60% in 2008 to

77.8% in 2014. This emphasized the role of men in CC use decision-making in Egypt and this was showed by a study[35] in Minnesota found that females who always talked with their partners were at lowest risk of pregnancy. **Kabbash *et al.*** [36] reported men play powerful role in reproductive decisions; their actions can have unhealthy and even dangerous results.

Women autonomy has a strong connection with shaping Egyptian women's behavior regarding CC use as postulated in a previous study in Egypt [37]. The present study result was consistent with that. In both surveys highly autonomous women had the largest percent in the CC use. In 2014 the highly autonomous females were 2 times more likely to use CC method compared to low autonomous females. In 2008 the interaction between education and autonomy made the primary educated highly autonomous females 3.5 times more likely to use a CC method than uneducated low autonomous females.

Women's acceptance of wife beating in Egypt was CC use determinantin 2014 survey only. Women not justified wife beating were 1.2 time more likely than those justified beating in 2014. This was not in line with a study [38] in Bangladesh that showed woman who experienced physical intimate partner violence used more CCs compared with those who did not experience such problem. The experience of domestic violence constrained the CC behavior through limiting access to health services and reducing a woman's ability to discuss with her husband around sex [39]. The same result presented in a study [40] relied on Jordan DHS 2007. Despite the fact that FP services are available free of charge in the whole country, out of the eight program variables used in the analysis, two variables only were associated with increased CC use in both surveys. They were the HF visiting in the last 6 months and exposure to FP message in the poster. Two added variables in 2008 (exposure to FP message in TV and newspaper) and one added in 2014 (distance to the health facility) showed significant association. Visitation of HF was a strong determinant in both surveys. Going to a HF affected the CC use in young females. Females who visited the HF in last 6 months were nearly 2 times CC users than who didn't have any visit in both 2008 and 2014 surveys (OR=1.94 in 2008 and 1.69 in 2014) that is consistent with a study in Albania [11].

Distance to HF is considered a significant factor in 2014 only. But it wasn't a determinant for the CC use in both surveys. This is not in line with the result in a study in India [41] that women with no problem in the distance to a HF were more likely to be CC users.

Exposure to FP message in the poster, billboard or sign is associated with the use in both surveys but not with modern use in 2014. It was a strong determinant in 2014 (OR=1.28) and this is consistent with the result of a study in India [41]. Meanwhile, exposures to FP information on radio and newspaper were not significant in 2014, but newspaper and TV were significantly associated with use and modern use in 2008. They weren't significant determinant in both surveys. This differed from a study in Ethiopia [42] that showed women who had exposure to FP message on either of the radio, TV, newspaper/magazine were more likely to use CCs than non-exposed women.

Exposure to FP message from a religious leader or in a community meeting in the last months weren't significant associated factors or determinants to the CC use in both surveys. This works in as a result of study in Uganda [43] showed religious leaders ought to be sensitized about benefits of FP to promote the use of FP by their followers.

CONCLUSIONS

Young married females in Egypt showed a downward trend in CP in 2014. The traditional methods were responsible for this decline. The most important determinants of the CC use among Egyptian young married females in 2008 were age, HF visiting, being from rural Upper Egypt, and husband desire for children. Women autonomy, exposure to FP message in poster and women's attitude toward wife beating are CC use determinants in 2014. But region lost its significance in 2014.

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Table (1): The Composition of Egyptian Young Married Females Based on 2008 and 2014 Egypt Demographic Health Survey (EDHS)

Background Character	Egyptian Young Married Females				Point Difference %
	EDHS 2008		EDHS 2014		
	N =3133	%	N =3726	%	
Age (years)					
15-19	605	19.3	746	20.0	0.7
20-24	2527	80.7	2980	80.0	0.7
Region					
Urban Gov.	368	11.8	263	7.1	-4.7*
Urban Lower	236	7.5	246	6.6	-0.9*
Rural Lower	1261	40.2	1556	41.8	1.6
Urban Upper	280	9.0	326	8.7	-0.3
Rural Upper	942	30.1	1298	34.8	4.7*
Frontier Gov.$^{+}$	45	1.4	37	1.0	0.4
Type of Residence					
Urban	911	29.1	855	23.0	-6.1*
Rural	2222	70.9	2871	77.0	6.1*
Education					
No Education	681	21.7	402	10.8	-10.9*
Primary	261	8.3	289	7.7	-0.6
Secondary	1890	60.4	2657	71.3	10.9*
Higher	301	9.6	378	10.2	0.6
Religion					
Muslim	2994	95.6	3604	96.8	1.2
Christian	139	4.4	116	3.1	-1.3
Other	NA**	-	6	0.1	---
Wealth Level					
Low	1384	44.1	1315	35.3	-8.8*
Middle	685	21.9	1094	29.4	7.5*
High	1064	34.0	1317	35.3	1.3
Number of Living Children					
0	964	30.8	999	26.8	-4.0*
1	1273	40.6	1511	40.6	0.0
2	734	23.4	997	26.8	3.4*
≥ 3 Children	163	5.2	219	5.8	0.6
Working for Cash in Last 12 Month					
Not work	2987	95.3	3546	95.2	-0.1
Work	146	4.7	180	4.8	0.1

***** =The difference between the two surveys (trend) is significant with P-value <0.05 using Chi-Square test.
$^{+}$=Does not include North and South Sinai governorates. **** NA**= Not applicable in EDHS 2008.
N.B. The sum of some categories may not equal the total number due to random rounding.

Table (2): Overall Percentage and Trend of Current Contraceptive Methods Use among Young Married Females Based on 2008 and 2014 Egypt Demographic Health Survey (EDHS)

Contraceptive Methods	Egyptian Young Married Females				Point Difference %
	EDHS 2008		EDHS 2014		
	N=2366^{+}	%	N =2757^{+}	%	
No Methods	1096	46.3	1345	48.8	2.5
Any Methods	1269	53.7	1412	51.2	-2.5
Traditional Method	117	5.0	64	2.3	-2.7*
Modern Method	1152	48.7	1349	48.9	0.2

*****= The difference between the two surveys (trend) is significant with P-value <0.05 using Chi-square test between "the survey year" as the independent factor and "the type of contraceptive method" as the dependent factor.
+= The sum of some categories may not equal the total number due to random rounding.

Table (3): Trend in Contraceptive Methods among Young Married Current Contraceptive Users Based on 2008 and 2014 Egypt Demographic Health Survey (EDHS)

Contraceptive Method	Young Married Females Contraceptive Users				Point Difference %
	EDHS 2008		EDHS 2014		
	N+ =1269	%	N+=1412	%	
Traditional Methods	117	9.2	64	4.4%	-4.8*
Modern Methods	1152	90.8	1348	95.6	4.8*
Pills	310	24.4	512	36.2	11.8*
IUD**	705	55.6	646	45.7	-9.9*
Injection	122	9.6	174	12.3	2.7
Condom	7	0.6	4	0.3	-0.3
Other Modern Methods	8	0.6	12	1.1	0.5

+= Number (N) in this table refers to the total number of contraceptive users. *****= The difference between the two surveys (trend) is significant with P-value <0.05 using Chi-square test between "the survey year" as the independent factor and "the type of contraceptive method" as the dependent factor. ******= Intra-uterine device.

Table (4): Demographic Factors Associated with Contraceptive Use Trend among Young Married Females Based on 2008 and 2014 Egypt Demographic Health Survey (EDHS) and Their Significant Association

Demographic Factors	Egyptian Young Married Females										Point Difference®
	EDHS 2008 N=2366					EDHS 2014 N=2757					
	Total No	Use		Modern Method		Total No.	Use		Modern Method		
	Na	Nb	%	Nb	%	Na	Nb	%	Nb	%	
Age (Year)											
15-19	407	142	34.9	120	29.5	476	153	32.1	141	29.6	-2.8
20-24	1959	1128	57.6	1033	52.7	2281	1259	55.2	1208	53.0	-2.4
χ^2 value		69.6		74.8			83.7		86.8		
P-value		**0.00**		**0.00**			**0.00**		**0.00**		
Region											
Urban Gov.	268	174	64.9	165	61.6	193	110	57.0	109	56.2	-7.9
Urban Lower	187	111	59.0	106	56.4	177	115	65.0	111	62.7	6.0
Rural Lower	960	554	57.7	517	53.9	1172	675	57.5	625	55.6	-0.2
Urban Upper	217	122	56.2	109	50.2	243	124	51.2	120	49.6	-5.0
Rural Upper	701	292	41.7	242	34.5	944	375	39.7	354	36.5	-2.0
Frontier Gov.	32	16	51.6	13	41.9	28	13	46.4	12	42.4	-5.2
χ^2 value		63.4		94.8			84.9		100.1		
P-value		**0.00**		**0.00**			**0.00**		**0.00**		
Type of Place of Residence											
Urban	692	416	60.1	387	56.0	629	357	56.8	347	55.2	-3.4
Rural	1674	853	50.9	765	45.7	2128	1055	49.6	1002	47.1	-1.4
χ^2 value		16.8		20.8			10.01		13.3		
P-value		**0.00**		**0.00**			**0.002**		**0.001**		
Number of Living Children											
No Child	482	5	0.01	4	€	474	0	€	0	€	-
One Child	1054	681	64.6	619	58.7	1187	661	55.7	629	53.0	-8.9*
Two Children	673	475	70.6	436	64.8	896	630	70.3	604	67.4	-0.3
≥ 3 Children	157	108	69.2	93	59.6	201	121	60.2	116	57.7	-9.0
FE value**		**832.3**					**824.9**				
P-value		**0.00**		**0.00**			**0.00**		**0.00**		

a= Respondent's number of each category estimated after applying weight factor. **b**=Frequencies estimated after applying weight factor. **®**= Percentage point difference in any method between the two surveys. *****= The difference between the two surveys (trend) is significant with P-value <0.05 using Chi-square test between "the survey year" as the independent factor and the studying variable as the dependent factor. ******= Fisher Exact test as 1cell has expected count less than 5. **€**= The numerator is less than 5 cases so percentage is not reliable. **N.B. 1:** Chi-square test was performed to examine whether or not method use significantly varies between categories of each factor in each survey separately. **N.B. 2:** The sum of some categories may not equal the total number due to random rounding.

Table (5): Socio-Economic Factors Associated with Contraceptive Use Trend among Young Married Females Based on 2008 and 2014 Egypt Demographic Health Survey (EDHS) and Their Significant Association

Socio-Economic Factors	Egyptian Young Married Females										Point Difference® %
	EDHS 2008 N=2366					EDHS 2014 N=2757					
	Total No.	Use		Modern Method		Total No.	Use		Modern Method		
	N[a]	N[b]	%	N[b]	%	N[a]	N[b]	%	N[b]	%	
Education											
No Education	511	241	47.2	216	42.3	317	143	45.1	137	43.2	-2.1
Primary	198	123	62.1	109	55.3	217	101	46.5	91	42.1	-15.6*
Secondary	1441	795	55.1	721	50.0	1968	1035	52.6	992	50.4	-2.5
Higher	215	111	51.6	106	49.3	256	134	52.5	128	50.2	0.9
χ^2 value		15.9		13.1			8.2		19.1		
P-value		**0.001**		**0.004**			**0.04**		**0.04**		
Religion											
Muslim	2258	1216	53.8	1104	48.9	2667	1373	51.5	1314	49.3	-2.3
Christian	107	54	50.0	49	45.4	86	38	43.7	33	38.4	-6.3
Others		NA				2	1	-	2	-	-
χ^2 value		0.608		0.608			2.4**		7.09**		
P-value		**0.49**		**0.73**			**0.36**		**0.123**		
Wealth Level											
Low Wealth	1059	514	48.5	455	43.0	971	435	44.8	410	42.2	-3.7
Middle	507	287	56.6	264	52.1	819	436	53.2	417	50.9	-3.4
High Wealth	800	469	58.6	434	54.2	967	542	56.0	522	54.0	-2.6
χ^2 value		20.88		26.3			26.38		28.6		
P-value		**0.00**		**0.00**			**0.00**		**0.00**		
Working for Cash in Last 12 Month											
No	2243	1201	53.5	1091	48.6	2619	1346	51.4	1288	49.2	-2.1
Yes	123	69	56.1	61	50.0	139	66	47.8	60	43.5	-8.3
χ^2 value		0.306		0.32			0.668		3.9		
P-value		**0.32**		**0.84**			**0.23**		**0.35**		
Media Score											
No access to Medi	46	17	36.2	15	31.9	19	9	45.0	7	36.8	8.8
Medium Access	921	480	52.1	426	46.3	2298	1157	50.3	1107	48.2	-1.8
High Access	1393	769	55.2	707	50.7	440	247	56.1	234	53.2	0.9
Missing cases	6					–					
χ^2 value		7.9		11.5			5.2		7.0		
P-value		**0.0190.02**					**0.07**		**0.136**		
Husband Education											
No Education	308	140	45.4	119	38.6	290	160	55.2	151	51.9	9.8*
Primary	355	206	58.0	184	51.8	310	173	55.8	167	53.9	-2.2
Secondary	1413	759	53.7	697	49.3	1826	915	50.1	879	48.1	-3.6*
Higher	289	164	56.7	152	52.4	330	163	49.4	152	46.1	-7.3
χ^2 value		12.1		18.9			5.7		10.1		
P-value		**0.0070.004**					**0.124**		**0.120**		
Using Social Networking Sites like Facebook and Twitter											
Not At All		**NA**				2423	1246	51.4	1186	49.0	-
Less Than Once A week						89	53	59.6	53	59.6	-
At Least Once A week						245	114	46.5	110	44.9	-
χ^2 value							4.6		7.8		
P-value							**0.09**		**0.09**		

[a]= Respondent's number of each category estimated after applying weight factor. [b]=Frequencies estimated after applying weight factor **NA**= Not applicable in EDHS 2008®= Percentage point difference in any method between the two surveys. *****= The difference between the two surveys (trend) is significant with P-value <0.05 using Chi-square test between "the survey year" as the independent factor and the studying variable as the dependent factor. **= Fisher Exact test as 1cell has expected count less than 5. €= The numerator is less than 5 cases so the percent is not reliable. **N.B. 1:** Chi-square test

was performed to examine whether or not method use significantly varies between categories of each factor in each survey separately. **N.B. 2:**The sum of some categories may not equal the total number due to random rounding.

Table (6): Cultural Factors Associated with Contraceptive Use Trend among Young Married Females Based on 2008 and 2014 Egypt Demographic Health Survey (EDHS) and Their Significant Association

Cultural Factors	Egyptian Young Married Females										Point Difference %®
	EDHS 2008 N=2366					EDHS 2014 N=2757					
	Total No	Use		Modern Metho		Total No.	Use		Modern Method		
	N[a]	N[b]	%	N[b]	%	N[a]	N[b]	%	N[a]	%	
Gender of Children											
Equal Gender	337	233	69.1	218	64.7	443	300	67.7	288	65.0	-1.4
More Sons	837	557	66.5	500	59.8	1003	625	62.3	597	59.5	-4.2
More Daughters	711	475	66.8	429	60.3	838	488	58.2	464	55.4	-8.6*
Missing Cases Represent Female With No Childre	482					474					
χ^2 value		0.77		3.6			11.2		11.5		
P-value		**0.678**		**0.462**			**0.004**		**0.02**		
Age of Marriage											
<18 years	966	534	55.3	482	49.8	1031	516	50.0	496	48.1	-5.3*
≥18	1400	735	52.5	671	47.9	1726	896	51.9	853	49.4	-0.6
χ^2 value		1.7		2.36			0.89		1.26		
P-value		**0.194**		**0.305**			**0.345**		**0.533**		
Inter-Spousal Age Difference											
≥ 7 years	1239	673	54.3	610	49.3	1401	696	49.7	666	47.5	-4.6*
< 7 years	1109	587	52.9	534	48.2	1326	699	52.7	665	50.2	-0.2
Woman Older	19	10	52.6	8	42.1	31	17	54.8	17	54.8	2.2
χ^2 value		0.46		1.8			2.68		3.8		
P-value		**0.794**		**0.768**			**0.262**		**0.967**		

a= No. of the respondent in each category estimated after applying weight factor. **b**= Frequencies estimated after applying weight factor. ®= Percent point difference in any method between the two surveys. *****=The difference between the two surveys (trend) is significant with P-value <0.05 using Chi-square test between "the survey year" as the independent factor and the studying variable as the dependent factor. **N.B. 1:** Chi-square test was performed to examine whether or not method use significantly varies between categories of each factor in each survey separately. **N.B. 2:** The sum of some categories may not equal the total number due to random rounding.

Table (7): Husband-Wife Relationship Factors Associated with Contraceptive Use Trend among Young Married Females Based on 2008 and 2014 Egypt Demographic Health Survey (EDHS) and Their Significant Association

Husband-Wife Relationship Factors	Egyptian Young Married Females										Point Difference® %
	EDHS 2008 N=2366					EDHS 2014 N=2757					
	Total No.	Use		Modern Method		Total No.	Use		Modern Method		
	N[a]	N[b]	%	N[b]	%	N[a]	N[b]	%	N[b]	%	
Autonomy Index											
Low	829	390	47.0	347	41.9	965	410	42.5	384	39.8	-4.5
Middle	559	300	53.7	282	50.4	482	260	53.0	243	50.4	-0.7
High	969	576	59.4	520	53.7	1306	741	56.5	721	55.2	-2.9
Missing cases	9	-	-		-	5	-	-		-	-
χ^2 value		27.6		32.8			46.8		57.6		
P- value		**0.00**		**0.00**			**0.00**		**0.00**		
Husband Desire for Children											
Both Want Same	1555	881	56.7	804	51.7	1743	944	54.2	898	51.5	-2.5
Husband Wants more	540	256	47.4	229	42.3	766	346	45.2	334	43.6	-2.2
Husband Wants Fewer	65	39	60.0	35	53.0	81	63	77.8	60	74.1	17.8*
Don't know	199	90	45.2	83	41.5	165	57	34.5	55	33.1	-10.7
Missing cases	5	-	-		-	2	-	-		-	-
χ^2 value		20.8		22.0			58.4		58.8		
P- value		**0.000**		**0.000**			**0.000**		**0.000**		
Wife Beating Attitude											
Justify the Beating	989	514	52.9	461	46.6	1139	506	44.4	473	41.5	-8.5*
Not Justify	1374	754	54,8	690	50.2	1617	905	56.0	874	54.1	1.2
Missing cases	2	-	-	-	-	2	-	-		-	-
χ^2 value		1.89		3.1			35.6		42.4		
P- value		**0.181**		**0.212**			**0.00**		**0.00**		

a= Respondent's number of each category estimated after applying weight factor. **b**=Frequencies estimated after applying weight factor. ®= Percent point difference in any method between the two surveys. *****= The difference between the two surveys (trend) is significant with P-value <0.05 using Chi-square test between "the survey year" as the independent factor and the studying variable as the dependent factor. **N.B. 1:** Chi-square test was performed to examine whether or not method use significantly varies between categories of each factor in each survey separately. **N.B. 2:** The sum of some categories may not equal the total number due to random rounding.

Table (8): Programmatic Factors Associated with Contraceptive Use Trend among Young Married Females Based on 2008 and 2014 Egypt Demographic Health Survey (EDHS) and Their Significant Association

Programmatic Factor	Egyptian Young Married Females										Point Difference® %
	EDHS 2008 N=2366					EDHS 2014 N=2757					
	Total No.	Use		Modern Method		Total No.	Use		Modern Method		
	N[a]	N[b]	%	N[b]	%	N[a]	N[b]	%	N[b]	%	
Visited Government Health Facility in Last 6 Months											
No	1319	599	45.4	547	41.5	1725	823	47	788	45.0	1.6
Yes	1047	671	64.1	605	57.8	1004	589	58.7	560	57.8	-5.4*
Missing cases	-	-	-	-		1	-	-	-		-
χ^2 value		81.8		82.8			34.9		35.2		
P- value		**0.00**		**0.00**			**0.00**		**0.00**		
Distance to Health Facility											
Big Problem	424	218	51.4	192	45.4	495	209	42.3	194	39.2	-9.1*
Not a Big Problem	1939	1050	54.2	959	49.4	2263	1203	53.2	1155	51.0	-1.0
Missing cases	3	-	-	-		-	-	-	-		-
χ^2 value		1.04		2.74			19.1		23.4		
P- value		**0.30**		**0.25**			**0.00**		**0.00**		
Exposure to FP Message on Radio in The Last Months											
No	1946	1032	53.0	945	48.5	2661	1364	51.3	1304	49	-1.7
Yes	418	237	56.6	207	49.5	95	48	50.0	45	46.9	-6.6
Missing cases	1	-	-	-		1	-	-	-		-
χ^2 value		1.57		5.23			0.06		0.39		
P-value		**0.19**		**0.07**			**0.836**		**0.821**		
Exposure to FP Message on TV in The Last Months											
No	946	466	49.3	420	44.4	1672	843	50.4	797	47.7	1.1
Yes	1419	803	56.6	732	51.6	1085	570	52.5	552	50.9	-4.1*
Missing cases	1	-	-	-		1	-	-	-		-
χ^2 value		12.2		12.6			1.17		5.37		
P-value		**0.000**		**0.002**			**0.292**		**0.068**		
Exposure to FP Message on Newspaper in The Last Months											
No	2245	1193	53.1	1085	48.3	2713	1390	51.2	1326	48.9	-1.9
Yes	120	75	62.5	67	56.2	44	23	52.3	23	51.8	-10.2
Missing cases	1	-	-	-		1	-	-	-		-
χ^2 value		4.01		4.26			0.019		1.15		
P-value		**0.049**		**0.118**			**1.0**		**0.563**		
Exposure to FP Message on Poster, Billboard, Or Sign in The Last 6 Months											
No	1693	861	50.8	785	46.3	2209	1108	50.2	1061	48.0	-0.6
Yes	671	408	60.7	367	54.6	548	303	55.6	288	52.6	-5.1
Missing cases	1					1					
χ^2 value		18.9		19.4			5.1		6.35		
P- value		**0.00**		**0.00**			**0.025**		**0.04**		
Exposure to FP Message in Community Meeting in The Last 6 Months											
No	2326	1245	53.5	1130	48.7	2730	1400	51.3	1336	48.9	-2-2
Yes	39	23	59.0	22	56.4	27	12	46.2	12	46.2	-12.8
Missing cases	1	-	-	-		1	-	-	-	-	-
χ^2 value		**0.45**		**0.68**			**0.27**		**0.78**		
P- value		**0.522**		**0.71**			**0.69**		**0.67**		
Exposure to FP from Religious Leader in The Last 6 Months											
No	2341	1256	53.7	1141	48.7	2724	1392	51.1	1329	48.8	-2.6
Yes	24	13	54.1	11	47.8	32	20	62.5	20	62.5	8.3
Missing cases	1	-	-	-		1	-	-	-	-	-
χ^2 value		**0.003**		**0.03**			**1.64**		**2.8**		
P- value		**1.0**		**0.98**			**0.217**		**0.245**		

a= Respondent's number of each category estimated after applying weight factor. **b**=Frequencies estimated after applying weight factor. ®=Percent point difference in any method between the two surveys. *=The difference between the two surveys (trend) is significant with p-value<0.05 using Chi-square test. **N.B. 1:** Chi-square test was performed to examine whether or not method use significantly varies between categories of each factor in

each survey separately. **N.B. 2:** The sum of some categories may not equal the total number due to random rounding.

Table (9): Predictive Factors for Contraception Usage among Young Married Females Based on 2008 and 2014 Egypt Demographic Health Survey (EDHS)

Predictive Factors	Young Married Females Contraceptive Users			
	EDHS 2008		EDHS 2014	
	Odds Ratio (95% CI€)		Odds Ratio (95% CI€)	
	Unadjusted	Adjusted	Unadjusted	Adjusted
I- Main Effect				
Age (Years)				
15-19	1.0	1.0	1.0	1.0
20-24	2.65(2. 12-3.317)*	2.52(1.98-3.21)***	2.64 (2.13-3.26)***	2.36(1.88-2.96)***
Type of Place				
Rural	1.0	1.0	1.0	1.0
Urban	1.46(1.22-1.74)***	0.94(0.44-2.04)	1.39(1.18-1.63)***	1.25(0.86-1.89)
Region				
Urban Governorates	1.0	1.0	1.0	1.0
Urban Lower Egypt	0.79 (0.52-1.19)	0.90(0.58-1.39)	1.22 (0.84-1.77)	1.28(0.86-1.89)
Rural Lower Egypt	0.75 (0.55-1.02)+	0.79(0.34-1.81)	1.00(0.76-1.31)	1.24(0.66-2.34)
Urban Upper Egypt	0.69 (0.48-1.01)+	0.77(0.51-1.15)	0.8(0.57-1.11)+	0.76(0.53-1.08)
Rural Upper Egypt	0.37 (0.27-0.51)***	0.43(0.18-0.99)*	0.46(0.35-0.61)***	0.65(0.34-1.23)
Frontier Governorates	0.49 (0.32-0.77)**	0.61(0.34-1.09)	0.59 (0.40-0.853)**	0.73(0.47-1.11)
Number of Living Children	3.04(2.70-3.42)***	Removed due to collinearity	2.65(2.38-2.95)***	Removed due to collinearity
Education				
No Education	1.0	1.0	1.0	1.0
Primary	1.58(1.13-2.21)**	1.02(0.55-1.87)	0.99(0.70-1.40)	1.02(0.53-1.97)
Secondary	1.41(1.16-1.71)**	1.02(0.71-1.46)	1.44(1.13-1.84)**	1.51(0.95-2.93)
Higher	1.31(0.95-1.81)+	0.53(0.17-1.64)	1.39(1.00-1.94)*	0.66(0.20-2.15)
Religion				
Muslim	1.0	1.0	1.0	1.0
Christian	0.84(0.58-1.22)	-	0.8 (0.52-1.23)	-
Wealth Level				
Low	1.0	1.0	1.0	1.0
Middle	1.38(1.12-1.71)**	1.01(0.56-1.81)	1.38(1.13-168)**	1.63(0.88-3.02)
High	1.66(1.38-2.0)***	0.96(0.47-1.97)	1.64(1.38-1.95)***	1.1 (0.51-2.36)
Working for Cash in Last 12 Months				
No	1.0	1.0	1.0	1.0
Yes	1.17(0.81-1.70)	-	0.77(0.54-1.09)+	0.71(0.48-1.04)
Media Score				
Low	1.0	1.0	1.0	1.0
Middle	2.13(1.21-3.73)**	1.52(0.83-2.78)	2.5(0.70-1.51)+	1.94(0.64-5.94)
Higher	2.33(1.33-4.08)**	1.30(0.70-2.41)	3.5(1.12-1.73)*	2.06(0.66-6.43)
Husband Education level				
No Education	1.0	1.0	1.0	1.0
Primary	1.60(1.18-2.16)**	1.22(0.87-1.70)	1.01(0.72-1.41)	-
Secondary	1.32(1.04-1.68)*	1.05(0.79-1.41)	0.88(0.68-1.14)	-
Higher	1.65(1.19-2.28)**	1.28(0.84-1.93)	0.95(0.69-1.31)	-
Gender of Children				
Equal Gender	1.0	1.0	1.0	1.0
More Daughters	0.90(0.68-1.19)	-	0.76(0.59-0.96)*	Removed due to missing
More Sons	0.89(0.68-1.17)	-	0.79(0.62-1.00)+	-
Age of Marriage				
<18 Year	1.0	1.0	1.0	1.0
≥ 18 Year	0.97(0.82-1.1)	-	1.08(0.93-1.28)	-
Inter-Spousal Age Difference				
Large Difference ≥7years	1.0	1.0	1.0	1.0
< 7 years	1.05(0.89-1.23)	-	0.94(0.80-1.09)	-
Woman Older Than Husbar	0.95(0.35-2.56)	-	0.94(0.44-1.9)	-
Autonomy Level				
Low	1.0	1.0	1.0	1.0
Middle	1.35(1.09-1.66)**	1.30(0.85-2.00)	1.51 (1.21-1.88)***	1.29 (0.61-2.72)
High	1.74(1.45-2.10)***	1.11(0.71-1.75)	1.68(1.42-2.01)***	1.98(1.16-3.37)*

€=Confidence interval. +=P- value ≤ 0.25. *****=P-value less than 0.05. ******=P-value less than 0.01. *******=P-value less than 0.001. **#**=Denotes the interaction between two factors. **$**=Compared to the reference group (no education low autonomy).

Table (9): Predictive Factors for Contraception Usage among Young Married Females Based on 2008 and 2014 Egypt Demographic Health Survey (EDHS) (Continued)

Predictive Factors	Young Married Females Contraceptive Users			
	EDHS 2008		EDHS 2014	
	Odds Ratio (95% CI€)		Odds Ratio (95% CI€)	
	Unadjusted	Adjusted	Unadjusted	Adjusted
Husband Desire For Children				
Both Want Same	1.0	1.0	1.0	1.0
Husband Wants More	0.71(0.58-0.85)***	0.77(0.63-0.95)*	0.65(0.55-0.78)***	0.74(0.62-0.89)**
Husband Wants Fewer	1.19(0.72-1.94)	1.30(0.76-2.24)	2.24(1.31-3.84)**	2.51(1.43-4.41)**
Wife Beating Attitude				
Yes	1.0	1.0	1.0	1.0
No	1.18(1.00-1.39)*	0.92(0.76-1.12)	1.65(1.41-1.92)***	1.21(1.01-1.45)*
Visited Government Health Facility in Last 6 Months				
No	1.0	1.0	1.0	1.0
Yes	2.10(1.78-2.48)***	1.94(1.62-2.33)***	1.75(1.50-2.05)***	1.69(1.43-2.00)***
Distance To Health Facility				
Big Problem	1.0	1.0	1.0	1.0
Not a big Problem	1.18(0.96-1.44)+	1.01(0.81-1.27)	1.37(1.14-1.66)**	1.16(0.94-1.43)
Exposure To FP on Radio in Last 6 Months				
No	1.0	1.0	1.0	1.0
Yes	1.20(0.96-1.48)+	1.10(0.86-1.42)	0.97(0.62-1.52)	-
Exposure to FP on TV in Last 6 Months				
No	1.0	1.0	1.0	1.0
Yes	1.33(1.12-1.56)**	1.08(0.89-1.32)	1.15(0.99-1.35)+	1.02(0.86-1.21)
Exposure to FP Newspaper in Last 6 Months				
No	1.0	1.0	1.0-	1.0
Yes	1.46(1.00-2.12)*	1.20(0.78-1.83)	1.30(0.70-2.41)	-
Exposure to FP Religious Leader in Last 6 Months				
No	1.0	1.0	1.0	1.0
Yes	0.92(0.44-1.95)	-	1.33(0.60-2.9)	-
Exposure to FP Community Meeting last 6 Months				
No	1.0	1.0	1.0	1.0
Yes	1.45(0.80-2.64)+	1.31(0.67-2.53)	0.89(0.40-1.97)	-
Exposure to FP On Poster, Billboard, Or Sign Last 6 Months				
No	1.0	1.0	1.0	1.0
Yes	1.50 (125-1.80)*	1.17(0.94-1.45)	1.43(1.18-1.73)***	1.28(1.04-1.58)*
II- Interaction Effects				
Education # Wealth	**P-value** =0.540		**P-value** =0.550	
Education # Autonomy	**P-value** =0.005		**P-value** =0.206	
Primary Educated Highly Autonomous$	3.39(1.35-8.47)**		No Significant Association between Education and Autonomy	
pseudo R-squared	**0.149**		**0.148**	
Overall Percentage %	**63.8**		**63.7**	

€=Confidence interval. +=P- value≤ 0.25. *=P-value less than 0.05. ******=P-value less than 0.01. *******=P-value less than 0.001. **#**=Denotes the interaction between two factors. **$**=Compared to the reference group (no education low autonomy).