

# Socio-Demographic Factors Differently Associate with Contraceptive Use Among Older Women in Comparison with Younger Women in Bangladesh.

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## Abstract

This paper examined that socio-economic factors were differently associated with younger and older married women in Bangladesh. A cross-sectional study was conducted in Madhabde, a municipality in Narsingdi district of Bangladesh and data were collected through face to face interview. Chi square test and logistic regression was applied to identify the factors that were related to contraceptive use both younger and older married women. The results showed that contraceptive prevalence rate was lower among younger women compared with older women. The finding showed that women skilled occupation and current living children were associated with younger people contraceptive use while women education, skilled occupation, husband approval of family planning, spousal communication, knowledge on contraceptive were associated with older married women contraceptive use. So, this study reveals that socio-economic factors were more associated with older married women contraceptive use than younger married women. So, family planning program in Bangladesh should give more emphasize on younger people to use contraceptive.

**Keywords:** contraceptive, younger women, older women, family planning, Bangladesh.

## 1. Introduction

Bangladesh has been passing through fertility decline since the 1970 (Islam et al, 2003). The total fertility rate has declined rapidly 6.3 births per woman in 1975 to 3.4 births per woman in 1993–94 (Islam et al, 2003). In this time fertility rate declined 2.9 births per woman that was near to half (Mitra *et al.*, 2013). The TFR declined slowly from 3.4 births per woman in 1993-1994 to 3.3 births per woman in 1996-1997 (Mitra *et al.*, 2013). Fertility rate was unchangeable during the period 1996-1997 to 1999-2000. Further, another rapid fertility declined 3.3 births per woman in 1999-2000 to 2.3 in 2011. The Health, Population and Nutrition Sector Development Program (HPNSDP) 2011-2016 targets to reduce fertility to 2 births per woman by 2016 (Mitra *et al.*, 2013). Bangladesh has experienced the increasing contraceptive use greater than sevenfold from 8% to 61% during the period 1975 to 2011 (Mitra *et al.*, 2013).

Recently, in developing countries, it has been increasing to keep family size small and intention for using appropriate family planning methods (Darroch, 2013). Contraceptive use is the most important factor that controls the fertility level in modern societies. About 50% married women use contraceptive all over the world and the rate is high, about 70-80% among the developed countries (Becker, 2006). Recently, use of modern contraceptive has increased in Bangladesh over last 20 years (Kamal, 1999). The Ministry of Health and Family Welfare of Bangladesh gives special attention to increase the use of modern contraceptive among the women (Hossain, 2005). Family planning is closely related to women health status because it ensures the healthy reproductive life and keep away from unsafe abortions, miscarriages, and stillbirths, unwanted pregnancy and the risks of giving birth (Stover and Ross, 2010). The same view revives by Antarsh that ‘‘Family planning gives health benefits to the individual woman by reducing exposure to unwanted pregnancy, pregnancy complications, unsafe abortions, childbirth complications, and some cancers’’ (Antarsh, 2004).

Family planning program in Bangladesh has successfully brought a change individual behavior such as marriage age, contraceptive use, breast-feeding and induced abortion (Islam, 2003). The decision of contraceptive use largely depends on not only demographics factors but also psychological, social and cultural factors (Oddens, 1997). Moreover, contraceptive use is also dependent on the availability and the quality of the family planning services (Hong, 2006). Most of the women in developing countries are not using contraceptive methods because they have low knowledge on contraceptive methods and lack of awareness of their risk for pregnancy (Sedga, 2007). Misconception about side effects and opposition of male partner are also reason for not using contraception (Darroch, 2013). The results of family planning program are not same in all areas. The success of family planning program also depends on individuals various socio-economic factors like education, occupation, income, place of residence, media exposure, and social facilities (Kalam and Khan, 2002). Moreover, contraceptive use is also depends on the individual age. Older people are more likely to use contraceptive than younger people.

Most of the adolescent in Bangladesh are forced to be married and faces early pregnancy (Rahman, 2010). Traditional social system in Bangladesh expects that newly married couple should take at least one child after their marriage. So these married younger couples are always in pressure to take a child. So they are less likely to use contraceptive and more likely to take a child (Sayem and Begum, 2008). About 27% married adolescent in Bangladesh are faced unplanned birth (Rahman, 2010). Although they suffer most of the reproductive problem, in Bangladesh there is no service exclusively target to adolescent. So it is very important to identify the factors related to young people's contraceptive use. So family planning program should give special attention to this adolescent group.

There are many studies in Bangladesh that identify the factors that are related to contraceptive use. But these studies give no special emphasis on that socio-economic factors differently affected from younger to older people. So, this study tries to understand the socio-economic and demographic factors related to contraceptive use among younger women comparing with older women.

### **1.1 Review of literature**

Programmatic factors are also important to contraceptive use. Kabir et al (2013) showed that women who had contacts with field workers were 2.57 times more likely to be current contraceptive-users compared to women having no contacts. Sayem and Begum (2008) found that mass media exposure and desired number of additional children were most important determinants of contraceptive use in rural areas of Bangladesh. Socio-economic factors were differently influence to couples contraceptive use with the different of age. Asiimwe (2013) showed in Uganda that more socio-economic and demographic factors were related with contraceptive prevalence rate among older women compared to the younger women. Women education is important for contraceptive use. Omariba (2006) found in Kenya that women education were positively associated with modern contraceptive use. Hossain (2005) found in Bangladesh that family planning field workers' contact decreased the risk of non using contraceptive and reduced the risk of unwanted pregnancy in Bangladesh. Eggleston (1998) identified the determinants that were associated with the contraceptive use in at first sexual intercourse among younger in urban Ecuador. He found that the odds of using contraceptive were 3.6 times higher for male than females to use contraceptive their first sexual intercourse. Kabir and Islam (2000) showed the effects of mass media family planning programmes on contraceptive use in Bangladesh. They found that radio television and newspaper spread the family planning message in urban area. Islam and Hassan (2000) identified that radio and television were an important source for family planning information in Bangladesh. They found that people were more likely to use contraceptive that have radio and television exposure to family planning message compare with have no media exposure. Islam and Thorvaldsen (2013) identified that family planning knowledge was largely influenced to contraceptive use in Bangladesh. They found that women who had school attendance and media exposure were 13.67 and 9.62 times more likely to say that they had heard about family planning message comparing with who had no school attendance and no media exposure. Thang and Huong (2003) found that the use of modern contraceptive was increased in Vietnam. Older women were more likely to use contraceptive than younger women. They found that living standard was largely influenced to women to choice in appropriate method. Contraceptive use is low in Pakistan. Khan and Khan (2010) showed that only 28% women were using contraceptive in Pakistan. They found that son preference and number of living daughter were the main reason for not using contraceptive. Couples joint agreement is most important to contraceptive use. Mohamood (1998) showed in Pakistan that the attitude towards fertility and family planning was different between husband and wife. They found that couple's joint approval of family planning, husband's desire for no more children and spousal communication were the main determinants of contraceptive use in this area. The fertility rate of younger people is higher than the fertility rate of older people. Early pregnancy is a major problem in developing country and most of the early pregnancy causes the death, disease and disability.

### **2. Data and methods**

A cross sectional study was conducted from April to June, 2008 in Madhabde, a municipality in Narsingdi district of Bangladesh. This is a small municipality in Narsingdi district and the majority of the populations are Muslim.

All married women with the age in reproductive age (15-34) years were the population of this study. This aged group was targeted because they are more sexually active and this is the prior time for child birth.

Two stage cluster sampling procedure was applied to determined the sample. At first stage, two of wards were selected among the nine wards in the municipality. Among the two wards 550 married women was selected as a

sample by using simple random sample. Thereafter, the sample was split into two groups, aged (15-24) into younger group and (25-34) years into older group. There were 290 married women in younger group and 260 into older group. The data was collected by face to face interview. A questionnaire was developed to collect the data.

Data was analyzed by using SPSS 20 (Statistical Package for Social Science). At first descriptive statistics as percentage distribution of the younger and older group was presented by their socio-economic variables. Then, chi square test also applied to test the association of the variable to contraceptive use of the younger and older group. Finally, separated logistic regression model was applied to determine the significant factors associated with both two groups.

### 3.Results

Table 1. Background characteristics of the younger and older group

| Background characteristics  | Younger group (15-24 years) | Older group(25-34 years) |
|-----------------------------|-----------------------------|--------------------------|
| Education of husband        |                             |                          |
| No education                | 15.2%                       | 15.3%                    |
| Primary                     | 18.5%                       | 17.7%                    |
| Secondary                   | 21.2%                       | 18.6%                    |
| Higher secondary            | 24.8%                       | 25.6%                    |
| Graduation and above        | 20.2%                       | 22.8%                    |
| P value                     | 0.115                       |                          |
| Women's education           |                             |                          |
| No education                | 25.8%                       | 23.5%                    |
| Primary                     | 36.0%                       | 34.0%                    |
| Secondary                   | 24.2%                       | 24.0%                    |
| Higher secondary and above  | 14.0%                       | 18.6%                    |
| P value                     | 0.414                       |                          |
| Women's occupation          |                             |                          |
| Not working                 | 77.0%                       | 70.9%                    |
| Unskilled                   | 12.8%                       | 14.9%                    |
| Skilled                     |                             |                          |
| P value                     | 0.288                       |                          |
| Husband's occupation        |                             |                          |
| Unskilled                   | 48.8%                       | 52.6%                    |
| Skilled                     | 36.5%                       | 35.3%                    |
| Professional                | 14.8%                       | 12.1%                    |
| Approval of family planning | 0.214                       |                          |
| No                          | 31.8%                       | 24.9%                    |
| Yes                         | 68.2%                       | 75.1%                    |
| P value                     | 0.709                       |                          |
| Social networks             |                             |                          |
| No                          | 26.8%                       | 27.9%                    |
| Yes                         | 73.2%                       | 72.1%                    |
| P value                     | 0.019                       |                          |
| Couple's income             |                             |                          |
| Less than 6000              | 34.0%                       | 25.1%                    |
| 6000-12000                  | 40.0%                       | 45.8%                    |
| 12000+                      | 26.0%                       | 29.1%                    |
| P value                     | 0.014                       |                          |
| Current living children     |                             |                          |
| 0                           | 14.7%                       | 17.0%                    |
| 1                           | 17.4%                       | 23.0%                    |
| 2                           | 31.2%                       | 33.2%                    |
| 3+                          | 36.7%                       | 26.8%                    |

|                            |       |       |
|----------------------------|-------|-------|
| P value                    | 0.055 |       |
| Knowledge on contraceptive |       |       |
| Low                        | 36.5% | 30.2% |
| High                       | 63.5% | 69.8% |
| P value                    | 0.574 |       |
| Media exposure             |       |       |
| No                         | 25.2% | 30.2% |
| Yes                        | 74.8% | 69.8% |
| P value                    | 0.338 |       |
| Spousal communication      |       |       |
| Unfavorable                | 36.2% | 38.1% |
| Favorable                  | 63.8% | 61.9% |
| P value                    | 0.338 |       |

The table shows that 18.6% older people had secondary and above education compared with 14.0% of younger people were passed in secondary and above education. The table shows that 74.8% younger people have secondary and above education compared with 69.8% of older people have passed in secondary and above education. Educational status of the husband was not much difference in two groups.

The table shows that older women were in better income position than younger women. The 45.8% older women had income in 6000-12000 tk group compared with of younger group were 40.0% in 6000-12000tk group. Respectively, about 26.0% younger women had high above 12000 tk income compared with 29.1% of older were above 12000tk income group. The table shows that, older people had better knowledge than younger people. The table shows that 69.5% older people had high knowledge on contraceptive compared with 63.5% younger people had high knowledge on contraceptive. The table shows that 75.1% older people's husband had approved family planning compared to 68.2% younger people's husband had approved family planning. So, older women's husbands were more likely to approve family planning than the younger women. There were not many differences with the social networks of the two groups. The table shows that 73.2% younger people talked with their social networks about fertility related issues compare with 72.1% older people talked with their social network partner. This means that younger women were more likely discuss with their social network than older women. There were not many differences with the spousal communication of the two groups. The table shows that 63.1% younger women talked with their husband about fertility related issues compared with 61.9% older women talked with their husband about fertility related issues.

Table 2. Proportion of currently using contraceptive by the younger and older group

| Variables                  | Younger women | Older women |
|----------------------------|---------------|-------------|
| Education of husband       |               |             |
| No education               | 37.7%         | 40.9%       |
| Primary                    | 45.9%         | 59.0%       |
| Secondary                  | 59.7%         | 75.0%       |
| Higher secondary           | 50.5%         | 60.4%       |
| Graduation and above       | 59.8%         | 67.4%       |
| P value                    | 0.039         | 0.001       |
| Women's Education          |               |             |
| No education               | 39.2%         | 38.0%       |
| Primary                    | 50.0%         | 64.6%       |
| Secondary                  | 61.1%         | 71.4%       |
| Higher secondary and above | 59.7%         | 75.3%       |
| P value                    | 0.009         | 0.000       |
| Women's Occupation         |               |             |
| Unskilled                  | 48.1%         | 38.7%       |
| Semi Skilled               | 44.8%         | 56.9%       |
| Skilled                    | 77.4%         | 85.4%       |
| P value                    | 0.000         | 0.000       |
| Husband's Occupation       |               |             |

|                             |       |       |
|-----------------------------|-------|-------|
| Unskilled                   | 48.7% | 57.6% |
| Semi-Skilled                | 53.4% | 66.4% |
| Skilled                     | 55.9% | 55.5% |
| P value                     | 0.196 | 0.226 |
| Couple's income             |       |       |
| Less Than 6000              | 43.4% | 43.5% |
| 6000-12000                  | 52.9% | 63.9% |
| 12000+                      | 59.8% | 73.3% |
| P value                     | 0.036 | 0.000 |
| Current Children            |       |       |
| 0                           | 27.9% | 33.3% |
| 1                           | 39.5% | 56.8% |
| 2                           | 59.4% | 67.2% |
| 3+                          | 63.3% | 71.2% |
| P value                     | 0.000 | 0.000 |
| Social Networks             |       |       |
| Low                         | 42.1% | 41.7% |
| High                        | 54.9% | 69.0% |
| P value                     | 0.022 | 0.011 |
| Knowledge on Contraception  |       |       |
| Low                         | 43.5% | 48.3% |
| High                        | 55.7% | 68.5% |
| Total                       | 51.5% | 61.4% |
| P value                     | 0.020 | 0.000 |
| Approval of family Planning |       |       |
| No                          | 34.4% | 34.4% |
| Yes                         | 56.7% | 72.8% |
| P value                     | 0.000 | 0.000 |
| Media exposure              |       |       |
| No                          | 41.6% | 43.8% |
| Yes                         | 54.8% | 69.0% |
| P value                     | 0.021 | 0.000 |
| Spousal Communication       |       |       |
| Unfavorable                 | 43.4% | 45.7% |
| Favorable                   | 56.1% | 71.1% |
| P value                     | 0.015 | 0.000 |

Women, whose husband had secondary education, were 45.9 % using contraceptive compare to the older women 59.0% were using contraceptive. Women, whose husband had secondary education, 59.7% younger were using contraceptive compared to the older women that were 75.0% using contraceptive. Women, whose husband had higher secondary education, 50.5% younger women were using contraceptive compared to the older women that were 60.0% were using contraceptive. Women whose husband had higher secondary educations, 59.8% younger women were using contraceptive compared to the older women that 67.4% were using contraceptive. So, contraceptive prevalence rate is high among older group compare to the younger that have higher education.

Women with primary education, 50.0% younger women were using contraceptive compared to the older women that 64.6% were using contraceptive. Women with secondary education, 61.1% younger women were using contraceptive compared to the older women that 71.4% were using contraceptive. Women with higher education, 59.7% younger women were using contraceptive compared to the older group that were 75.3% using contraceptive.

Women with high social networks, 54.9% younger women were using contraceptive but among the older women 69.0% were using contraceptive. According to spousal communication, 71.1% older were using contraceptive compared to the younger group that 56.1% were using contraceptive. About 69.0% older women were using contraceptive that had media exposure. But 54.8% younger were using contraceptive that have media exposure. 68.5% older women were using contraceptives that had high knowledge on contraceptive. But 51.5% younger

were using contraceptive that had high knowledge on contraceptive. About 63.9% older were using contraceptive that had 6000-12000 Tk income compare with 52.9% younger women were using contraceptive that had 6000-12000tk income . About 59.8% younger women were using contraceptive who had high income compared to 73.3% younger women were using contraceptive that had high income..

According to occupation, women involvement in semiskilled workers, 56.9% older were using contraceptive compare to younger 44.8% were using contraceptive. Women involvement in skilled workers, 85.4% older were using contraceptive compared to younger 77.4% were using contraceptive.

According to occupation, husband's involvement in semiskilled workers, 66.4% older women were using contraceptive compare to younger women 53.4% were using contraceptive. Women involvement in skilled workers, 55.5% older were using contraceptive compare to younger 55.9% were using contraceptive.

Table 3.Logistic regression show the factors associated with contraceptive use

| Variables                          | Younger women | 95% Conf. interval |        | Older women | 95% Conf. interval |        |
|------------------------------------|---------------|--------------------|--------|-------------|--------------------|--------|
|                                    | Odds ratio    | Lower              | Upper  | Odds ratio  | Lower              | Upper  |
| <b>Husband's Education</b>         |               |                    |        |             |                    |        |
| No(Ref)                            |               |                    |        |             |                    |        |
| Primary                            | 1.065*        | 0.487              | 2.329  | 0.987       | 0.429              | 2.271  |
| secondary                          | 1.907         | 0.828              | 4.390  | 1.629       | 0.661              | 4.014  |
| Higher secondary                   | 1.249         | 0.546              | 2.859  | 0.653       | 0.278              | 1.534  |
| Graduate and above                 | 1.779         | 0.714              | 4.437  | 0.739       | 0.274              | 1.995  |
| <b>Women's Education</b>           |               |                    |        |             |                    |        |
| No(Ref)                            |               |                    |        |             |                    |        |
| Primary                            | 1.063         | 0.581              | 1.942  | 1.918**     | 1.015              | 3.624  |
| Secondary                          | 1.662         | 0.842              | 3.279  | 2.213**     | 1.057              | 4.636  |
| Higher Secondary and above         | 1.117         | 0.462              | 2.701  | 2.421**     | 0.915              | 6.409  |
| <b>Women's Occupation</b>          |               |                    |        |             |                    |        |
| Not Working(Ref)                   |               |                    |        |             |                    |        |
| Unskilled                          | 0.989         | 0.511              | 1.913  | .522        | 0.266              | 1.026  |
| Skilled                            | 3.329***      | 1.504              | 7.372  | 2.396***    | 0.939              | 6.115  |
| <b>Couple's Income</b>             |               |                    |        |             |                    |        |
| Less Than 6000 tk(Ref)             |               |                    |        |             |                    |        |
| 6000-12000tk                       | 1.427         | 0.848              | 2.401  | 1.918*      | 1.067              | 3.449  |
| 12000+ tk                          | 1.637         | 0.871              | 3.076  | 2.108*      | 1.018              | 4.366  |
| <b>Current Children</b>            |               |                    |        |             |                    |        |
| 0(Ref)                             |               |                    |        |             |                    |        |
| 1                                  | 1.584*        | 0.729              | 3.445  | 2.240*      | 1.004              | 4.996  |
| 2                                  | 5.088**       | 2.408              | 10.750 | 4.919***    | 2.315              | 10.451 |
| 3+                                 | 6.896***      | 3.165              | 15.027 | 5.775***    | 2.742              | 12.165 |
| <b>Approval of Family Planning</b> |               |                    |        |             |                    |        |
| No(Ref)                            |               |                    |        |             |                    |        |
| Yes                                | 2.054         | 1.164              | 3.627  | 2.935***    | 1.680              | 5.128  |
| <b>Social Networks</b>             |               |                    |        |             |                    |        |
| No(Ref)                            |               |                    |        |             |                    |        |
| Yes                                | 1.340         | 0.792              | 2.268  | 1.926**     | 1.131              | 3.282  |
| <b>Knowledge on Contraceptive</b>  |               |                    |        |             |                    |        |
| No(Ref)                            |               |                    |        |             |                    |        |
| Yes                                | 1.149         | 0.665              | 1.985  | 1.051       | 0.587              | 1.880  |
| <b>Media Exposure</b>              |               |                    |        |             |                    |        |
| No(Ref)                            |               |                    |        |             |                    |        |
| Yes                                | 1.028         | 0.580              | 1.822  | 1.056       | 0.599              | 1.863  |
| <b>Spousal Communication</b>       |               |                    |        |             |                    |        |
| Unfavorable (Ref)                  |               |                    |        |             |                    |        |
| Favorable                          | 1.021         | 0.624              | 1.673  | 1.687**     | 1.016              | 2.802  |

Significant at \*P<0.10; \*\*P<0.05; \*\*\*p<0.01;



Hosmer and Lemeshow goodness-of-fit test:  $\chi^2=4.262$ ;  $df=8$ ;  $p=0.833$  (Younger group)

Hosmer and Lemeshow goodness-of-fit test:  $\chi^2=4.774$ ;  $df=8$ ;  $p=0.781$  (older group)

Ref=reference category

The older women were 1.918 times more likely to use contraceptives that had income 6,000-12,000tk compared with that had income less than 6000tk. The older women were 1.918 times more likely to use contraceptives that had income above 12000tk compared with that had income less than 6000tk. For younger group, the odds of using contraceptive were 3.329 times higher for women with skilled occupation compared with women with not working. For older women, the odds of using contraceptive were 2.396 times higher for women with skilled occupation compared with women with not working. For older women, the odds of using contraceptive were 1.918 times higher for women with occupation compared with women with not any education. For older women, the odds of using contraceptive were 2.213 times higher for women with secondary education compared with women with not any education. For older women, the odds of using contraceptive were 2.421 times higher for women with higher secondary education compared with women with not any education. For older group, the odds of using contraceptive are 2.240, 4.919, 5.775 times higher for women with one, two and three and above children. For younger women, the odds of using contraceptive were 5.088 and 6.896 times higher for women with two and three and above children. The older people were 1.687 times more likely to use contraceptive that had spousal communication compare with who had no spousal communication. The older people were 2.395 times more likely to use contraceptive that had social network communication compare with who had low social network.

#### 4.1 Discussion and conclusion

We examine the factors that are associated with contraceptive use in younger and older group in Bangladesh. The regression results showed that socio economic factors were more associated with contraceptive use of older group than younger group. So socio-economic and demographic factors were more associated with older people compare with younger group. Current living children and women's skilled occupation were associated with the contraceptive choice of both younger and older women. Current living children and women occupation are playing vital role in contraceptive use in Bangladesh (Kamal, 2003). We found that spousal communication was associated with older people's contraceptive use but not has significant association with younger people contraceptive use although those two groups have favorable spousal communication. Younger people may discuss about family planning related issues with how many child will they take but older people, most of the times, discuss about when to stop child bearing and which method use to avoid pregnancy. Women education was also associated with older people contraceptive use. Educated women more likely want to keep family size small. Couples income was not associated with younger people's contraceptive use but had significant impact found in older group.

So, it is clear that younger people are more likely to take child than older people. So, the contraceptive use rate is low among the younger people. Some of the younger people may not use contraceptive although they are not prepared to take child. Among them who faced unplanned pregnancy, some of the younger women may take illegal adoration (Raman, 2010m). Husband approval of family planning is also associated with older women contraceptive use. So it is clear that older people husband more like to approve family planning than younger group. The family planning field workers in Bangladesh should give emphasis on married younger people to contraceptive use.

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