

## Original Article

## The Relationship between the Women Empowerment and Use of Contraceptive Methods among Married Women of Reproductive Age (15-35+) in Punjab, Pakistan: A Cross Sectional Study

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### Abstract

**Objective:** To determine the association of women empowerment with the use of contraceptive methods among married women of reproductive age (15-35+) in Punjab, Pakistan.

**Methods:** The nature of the research study was cross-sectional and a quantitative approach was employed. The time of study was from December 2022 to March 2023. The target population was married women of reproductive age 15-35+ years in Punjab. Within Punjab, ten districts were selected. The sampling frame of this survey was updated through available frame by Pakistan Bureau of Statistics, Islamabad. The sample size of the study was 8640 households. The sample of households was drawn by employing two-stage cluster sampling. Probability proportionate to size was used to select the blocks from each stratum. The research selected the 20 households (SSUs) from one block (PSUs) based on actual listing using systematic sampling technique with random start. The descriptive, chi-square and binary logistic regression was applied.

**Results:** By analyzing the data, it was found that women empowerment was largely associated with women's contraception use. The women who had participation in household decision-making had greater use of contraception (54.2%) as compared to women with any ownership of assets (53.8%) and women with control over their income (52.7%). Odd ratios from binary regression also revealed the same pattern that women's higher level of participation in household decision-making encourage them to use of contraception at greater level (O.R= 1.369) as compared to the women with any ownership of assets (O.R= 1.304) and women with control over their income (1.240%).

**Conclusion:** The results of the study yield that women empowerment pave the ways for women to improve their reproductive health and also make independent taking the decisions related to their bodies. Without empowering women, the higher use of contraceptive methods is a distant dream. Therefore, it is a high time to take contingent measures to empower the women in every field of life.

**Keywords:** Women Empowerment, Contraceptive Use, Reproductive Health.

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### Introduction

There is no denying the fact that women cover the half sky, but they are shackled in every sphere of life. They have no independent decision-making and autonomous status in our society. They are dependent and subservient to men in every decision related to their own fate. The command of the plight of the woman is in the hand of man.<sup>1</sup> Surprisingly, the honor of a man revolves around his woman. Resultantly, he tries to control her body, mobility and sexuality. The regressive cultural values

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and practices exploit and discriminate the existence of the women inside the home and outside the home.<sup>2</sup> The Pakistani society is characterized as male-centered society wherein women are subjugated and subordinated.

Regarding the empowerment of women, status of women in our society in terms of education, health, employment, entrepreneurship, economic and mobility is dismal and shambolic.<sup>3</sup> In a larger picture, how can a nation progress when half of the population is liberated, and

half of the population is subjugated? The empirical evidence yield that no nation can run on the track of development and advancement without incorporating women in the process of development.<sup>4</sup> The current research study was an organized effort for assessing the status of women empowerment and its relationship with the uptake of contraception. The existing literature provide that women's decision-making power is a building block of their autonomy in the daily life affairs.<sup>5</sup> When women have no decision-making power, it will lead to a unstructured and un-developed society.<sup>6</sup> The women have no knowledge about their reproductive health.<sup>7</sup> They have no choice to utilize and up-take the family planning services for the betterment of mother and child health.<sup>8</sup> They have no right to exercise their will regarding reproductive rights.<sup>9</sup>

In this dreary scenario, it is hypothesized that women with higher education, ownership of assets and control over their income have also control over their bodies and they can use family planning services independently.<sup>10</sup> They can also make decisions regarding the numbering and spacing of children.<sup>11</sup> They have enough knowledge of their reproductive rights and they exercise these rights in practice.<sup>12</sup> Aim of this study was to find out the association of women empowerment with the use of contraceptive methods among married women of reproductive age (15-35+) in Punjab, Pakistan.

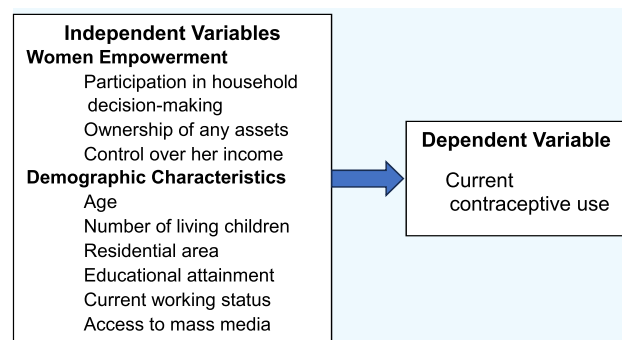


Figure 1: Conceptual Framework

## Methods

The study was cross-sectional in nature and a quantitative approach was employed. For the current research, Punjab was the study area. Within the Punjab, ten districts were selected.

### Sampling Frame

For the drawing of sample, available updated sampling frame was adopted, and it was developed by Pakistan Bureau of Statistics, Islamabad. The Pakistan Bureau of Statistics, Islamabad geographically distributed the areas into blocks and one block consisted of 200-250 households. In this study, these blocks are referred to the Primary Sample Unit (PSU).

The detail of blocks in the ten districts is described below:

### Distribution of Blocks

| <b>Enumeration Blocks</b>                                    |              |       |       |       |
|--|--------------|-------|-------|-------|
| No. of enumeration blocks and villages as per sampling frame |              |       |       |       |
| Sr.#   | District     | Urban | Rural | Total |
| 1  | Attock       | 375   | 1279  | 1654  |
| 2  | Chakwal      | 223   | 1292  | 1515  |
| 3  | Bhakkar      | 187   | 1272  | 1459  |
| 4  | Chiniot      | 282   | 855   | 1137  |
| 5  | Gujranwala   | 1738  | 1620  | 3358  |
| 6  | Kasur        | 624   | 2227  | 2851  |
| 7  | Okara        | 544   | 2007  | 2551  |
| 8  | Vehari       | 375   | 1964  | 2339  |
| 9  | MuzaffarGarh | 515   | 2734  | 3249  |
| 10   | BahawalPur   | 780   | 2449  | 3229  |

**\*Developed by PBS**

### Sample Size and Its Allocation

The sample size of 8640 was drawn. The contraceptive prevalence rate was used to estimate the sample size in ten districts of the Punjab.

- Indicator: Contraceptive prevalence Rate (CPR)
- Deff: 2,
- Level of confidence (t): 95%,
- Confidence Interval (d): 15%
- Response Rate (RR): 95%
- Proportion of exposed population (p) has been used from the Census 2017
- HH size has been taken from Census 2017,
- Prevalence rate (r) has been used from MICS Punjab report 2017,
- Intake is 20.

### No. of enumeration blocks and villages as per PSUs and SSUs

| Sr.#         | District     | Urban | Rural | Total | Urban | Rural | Total |
|--------------|--------------|-------|-------|-------|-------|-------|-------|
| 1            | Attock       | 7     | 22    | 29    | 140   | 440   | 580   |
| 2            | Chakwal      | 4     | 23    | 27    | 80    | 460   | 540   |
| 3            | Bhakkar      | 5     | 37    | 42    | 100   | 740   | 840   |
| 4            | Chiniot      | 10    | 30    | 40    | 200   | 600   | 800   |
| 5            | Gujranwala   | 31    | 29    | 60    | 620   | 580   | 1200  |
| 6            | Kasur        | 11    | 38    | 49    | 220   | 760   | 980   |
| 7            | Okara        | 10    | 35    | 45    | 200   | 700   | 900   |
| 8            | Vehari       | 6     | 33    | 39    | 120   | 660   | 780   |
| 9            | MuzaffarGarh | 8     | 42    | 50    | 160   | 840   | 1000  |
| 10           | BahawalPur   | 12    | 39    | 51    | 240   | 780   | 1020  |
| <b>Total</b> |              | 104   | 328   | 432   | 2080  | 6560  | 8640  |

**\*Developed by PBS**

The detail of sample size

### Sampling Process

For drawing the sample of households (SSU) from the blocks (PSUs), two-stage cluster sampling procedure was adopted. The sample design of two stages cluster sampling was used for selecting the sample of households (SSU).

- Firstly, researchers selected the blocks (PSU) from the rural and urban frame.
- Secondly, households (SSU) were selected from the selected blocks.
- Finally, researcher has selected 20 households based on actual listing using systematic sampling technique with random start.

### Data Analysis

The processing of collected data was carried out after the fieldwork. Computer-based software was designed for the processing of data including punching, cleaning, coding and mining. The data was exported from computer-based software to statistical software SPSS version 25.0 for analysis purposes. Descriptive, chi-square, binary logistic and multinomial regression model was employed to assess the complex relationship between the women empowerment and current contraceptive use among married women (aged 15-49) in Punjab.

**Table 1:** Demographic Characteristics of the Respondents (N=8640)

| Background Characteristics | Category   | Percent |
|----------------------------|------------|---------|
| Age                        | 15-24      | 8.4     |
|                            | 25-34      | 33.6    |
|                            | 35+        | 58.0    |
| Number of Living Children  | 0          | 3.6     |
|                            | 1-2        | 18.0    |
|                            | 3-4        | 42.3    |
|                            | 5+         | 36.1    |
| Educational Status         | Illiterate | 46.5    |
|                            | Primary    | 22.7    |
|                            | Secondary  | 21.5    |
| Residential Place          | Higher     | 9.3     |
|                            | Urban      | 38.7    |
|                            | Rural      | 61.3    |
| Access to Mass Media       | Yes        | 86.0    |
|                            | No         | 14.0    |
| Working Status             | Yes        | 27.7    |
|                            | No         | 72.3    |

### Results

The above table presents the information regarding the background characteristics of the respondents in ten districts of Punjab. Compared to women aged 15–24 years (8.4%), there were more women aged 25–34 years (33.6%). A comparable trend of rising percentage (58%) was also observed for those above the age of 35+ years. Compared to women with 1-2 children (18%) and 5+ children (36.1%), the percentage of women with 3–4 children (42.3%) were higher.

Of all respondents, 46.5% were illiterate, followed by primary respondents (22.7%), secondary respondents (21.5%), and higher education respondents (9.3%). In general, the breakdown of respondents based on their place of residence shows that female respondents were significantly more likely to live in rural areas (61.3% vs. 38.7%) than in urban areas. Informal channels like the media can be very helpful in promoting women's empowerment and contraceptive use in a nation like Pakistan, where a large portion of women lack formal education or are illiterate. As predicted, a far higher number of people (86%), had access to media. In actuality,

**Table 2:** The relationship between the demographic characteristics and current contraceptive use (N=8640)

| Background Characteristics | Category   | Current Contraceptive use (Yes) % |
|----------------------------|------------|-----------------------------------|
| Age                        | 15-24      | 32.6                              |
|                            | 25-34      | 48.0                              |
|                            | 35+        | 50.6                              |
| Number of Living Children  | None       | 8.0                               |
|                            | 1-2        | 29.5                              |
|                            | 3-4        | 49.9                              |
|                            | 5+         | 55.1                              |
| Educational Status         | Illiterate | 42.5                              |
|                            | Primary    | 52.0                              |
|                            | Secondary  | 54.0                              |
| Residential Place          | Higher     | 59.1                              |
|                            | Urban      | 55.7                              |
|                            | Rural      | 44.4                              |
| Access to Mass Media       | Yes        | 53.4                              |
|                            | No         | 46.6                              |
| Working Status             | Yes        | 68.1                              |
|                            | No         | 31.9                              |

lity, during the 12 months prior to the study, only 27.7% of the respondents worked at jobs other than doing their regular household.

The above table finds the association of demographic characteristics of the respondents and utilization of con-

traception in ten districts of Punjab. Of the 687-women age group 15-24 utilized contraception presents to a prevalence of 32.6%. Women who were more than 35 years have higher prevalence of contraception use than 25–34 years (50.6% and 48.0% respectively). Women who currently had 5 + children reported higher rates of contraception use (55.1%) than women with 3-4 children (49.9%) and 1-2 children (29.5%).

The analysis reveals that use of contraception was higher among the highly educated women (59.1%) as compared with the illiterate (42.5%), primary (52%) and secondary (54%). This shows that education empowers women to have freedom of choice in making better decisions

**Table 3:** The Relationship between the demographic characteristics and women empowerment (N=8640)

| Background Characteristics | Category   | Participation in HH decision making | Ownership of assets | Control over Her income |
|----------------------------|------------|-------------------------------------|---------------------|-------------------------|
| Age                        | 15-24      | 35.8                                | 2.0                 | 57.3                    |
|                            | 25-34      | 53.5                                | 3.4                 | 61.5                    |
|                            | 35+        | 64.9                                | 6.3                 | 67.1                    |
| p-Value                    |            | <b>0.000</b>                        | <b>0.000</b>        | <b>0.000</b>            |
| Number of Living Children  | None       | 60.4                                | 8.0                 | 64.7                    |
|                            | 1-2        | 47.4                                | 4.4                 | 54.2                    |
|                            | 3-4        | 60.6                                | 5.1                 | 63.6                    |
|                            | 5+         | 62.0                                | 5.2                 | 69.3                    |
| p-Value                    |            | <b>0.000</b>                        | <b>0.508</b>        | <b>0.000</b>            |
| Educational Status         | Illiterate | 55.1                                | 3.6                 | 64.1                    |
|                            | Primary    | 61.5                                | 4.8                 | 64.3                    |
|                            | Secondary  | 60.1                                | 6.1                 | 63.3                    |
|                            | Higher     | 68.9                                | 10.1                | 69.8                    |
| p-Value                    |            | <b>0.000</b>                        | <b>0.000</b>        | <b>0.003</b>            |
| Residential Place          | Urban      | 65.9                                | 7.1                 | 65.8                    |
|                            | Rural      | 54.9                                | 3.8                 | 63.9                    |
| p-Value                    |            | <b>0.000</b>                        | <b>0.000</b>        | <b>0.058</b>            |
| Access to Mass Media       | Yes        | 64.5                                | 9.5                 | 67.5                    |
|                            | No         | 58.9                                | 4.2                 | 64.4                    |
| p-Value                    |            | <b>0.000</b>                        | <b>0.003</b>        | <b>0.002</b>            |
| Working Status             | Yes        | 66.3                                | 6.0                 | 70.2                    |
|                            | No         | 56.9                                | 4.7                 | 63.0                    |
| p-Value                    |            | <b>0.000</b>                        | <b>0.013</b>        | <b>0.000</b>            |

\*Significance level at 5%.

on fertility related issues and also encourages them to exercise women's health rights compared to uneducated women.

The results also revealed variations in contraceptive usage by women besides residence (Urban vs. Rural). The uptake of contraception found very high in the urban areas (55.7%) as compared to the rural areas (44.45) in targeted districts.

The contraceptive use was also higher (53.4%) in women exposed to mass media as compared to the women who had less or not exposure to mass media in the targeted districts (31.9%).

As shown in the table above, the age (35+ years), number of living children (5+), education status (higher education), residential area (urban), Access to mass media (yes) and working women (yes) were statistically corre-

**Table 4:** The relationship between women empowerment and current contraceptive use (N=8640)

| Empowerment Indicators              | Categories | Current Contraceptive Use | p-Value |
|-------------------------------------|------------|---------------------------|---------|
| Participation in HH Decision making | Yes        | 54.2                      | 0.000   |
|                                     | No         | 45.8                      |         |
| Ownership of Assets                 | Yes        | 53.8                      | 0.002   |
|                                     | No         | 46.2                      |         |
| Control over her income             | Yes        | 52.7                      | 0.000   |
|                                     | No         | 47.3                      |         |

\*Significance level at 5%.

lated with women's empowerment (Participation in household decision-making, Property Ownership and Income Control) at p<0.000.

As a result, we found that empowered women—those who participate in family decision-making (54.2%), own assets (53.8%), and have control over their income (52.7%)—use contraception at higher rates than other women. The degree of contraceptive use among female respondents in the above table was found to be statistically significantly associated with women's empowerment (control over income, ownership of assets, and active participation in household decision-making) at p<0.000.

The odds ratio indicate that women who had greater participation in the household decision-making power were more likely to use contraception (O.R 1.369) compared to ownership of assets (O.R 1.304) and control of income (O.R 1.240). It was also found that exposure to mass media also had greater net effect on the women for the use of contraception (O.R 0.784). The odd ratio also yield that higher age of women such as 35+ were more likely to use contraception (O.R 1.459) than the women with lower age categories in the age group of 25-34 (O.R 1.365).

Likewise, the probability of using contraception methods

**Table 5:** *Odd ratios from binary logistic regression analysis showing net effect of women empowerment on current contraceptive use in Punjab (N=8640)*

|                                | Variables                           | Categories      | Binary Regression Model |       |       |
|--------------------------------|-------------------------------------|-----------------|-------------------------|-------|-------|
|                                |                                     |                 | 95C. I                  |       |       |
|                                |                                     |                 | O.R*                    | Lower | Upper |
| <b>Empowerment Indicators</b>  | Participation in HH Decision making | Yes             | 1.369***                | 1.264 | 1.486 |
|                                |                                     | No(Ref)         |                         |       |       |
|                                | Ownership of Assets                 | Yes             | 1.304***                | 1.096 | 1.555 |
|                                |                                     | No(Ref)         |                         |       |       |
|                                | Control over her income             | Yes             | 1.240***                | 1.138 | 1.350 |
|                                |                                     | No(Ref)         |                         |       |       |
|                                | Exposure to Mass Media              | Yes             | .784***                 | .714  | .878  |
|                                |                                     | No              |                         |       |       |
|                                | Age                                 | 15-24(Ref)      |                         |       |       |
| 25-34                          |                                     | 1.365***        | 1.252                   | 1.489 |       |
| 35+                            |                                     | 1.459***        | 1.321                   | 1.659 |       |
| <b>Women Background Status</b> | Educational Status                  | Illiterate(Ref) |                         |       |       |
|                                |                                     | Primary         | 1.465***                | 1.327 | 1.618 |
|                                |                                     | Secondary       | 1.590***                | 1.438 | 1.575 |
|                                |                                     | Higher          | 1.760***                | 1.719 | 1.960 |
|                                | Living Children                     | None            | .071***                 | .017  | .301  |
|                                |                                     | 1-2             | .342***                 | .304  | .384  |
|                                |                                     | 3-4             | .811***                 | .746  | .881  |
|                                | Working Status                      | 5+(Ref)         |                         |       |       |
|                                |                                     | Yes             | 1.029***                | 1.118 | 1.354 |
|                                | Residential Area                    | No(Ref)         |                         |       |       |
| Urban                          |                                     | 1.575***        | 1.456                   | 1.704 |       |
| Rural(Ref)                     |                                     |                 |                         |       |       |

was significantly higher for respondents who posed higher education (O.R 1.760) relative to those with secondary education (1.590%) and primary education (O.R 1.465). The findings have showed that the odd ratio of using contraceptives were higher for those women respondents with 3-4 children (O.R 0.811) as compared to women having 1-2 children (O.R 0.342) and with no children (O.R 0.071). In the other hand, working class women also lost significance (O.R 1.029) in the multivariate analysis. The study indicates that demographic factors play a key role on the use of contraceptives. The contraceptive use was quite significant for those who were living in urban areas (O.R 1.575).

### Discussion

Our analysis highlights the relationship between women's empowerment and contraceptive use among married women of reproductive age in Punjab, Pakistan. Educational attainment, access to mass media, age, number of living children, and women's participation in decision-making processes emerge as crucial determinants of empowerment, with implications for contraceptive

behavior.

Education is a pivotal factor in women's empowerment and its association with contraceptive use has been extensively studied. The study on determinants of women's empowerment in Pakistan emphasizes the positive impact of education on women's empowerment, with higher levels of education being associated with increased empowerment among women<sup>1</sup>. Studies such as the one on role of education in women empowerment highlight the importance of education in influencing women's decision-making power and knowledge level, ultimately affecting contraceptive behavior<sup>8</sup>.

Access to mass media plays a significant role in women's empowerment and its association with contraceptive use. Previous research on women empowerment through media and knowledge sharing in Sindh, Pakistan, highlights the positive effect of social, electronic, and print media on women's empowerment, indicating that media platforms contribute to raising awareness and advocating for women's rights<sup>16</sup>. Our findings further support this, demonstrating that women with access to mass media

resources are more likely to report higher levels of empowerment, which may likely to increase contraceptive use.

Age and the number of living children emerge as significant determinants of women's empowerment, consistent with previous research. A study on women's empowerment and contraceptive use in ASEAN countries highlight the influence of demographic factors on women's empowerment indicators, with older women and those with more living children exhibiting higher levels of empowerment<sup>6</sup>. These findings emphasize the importance of considering women's life experiences and maternal responsibilities when designing interventions to promote women's empowerment and contraceptive use.

Women's participation in decision-making processes at various levels has significant implications for their empowerment and contraceptive use. Research suggests that women who actively participate in household decision-making are more likely to use contraception, highlighting the link between empowerment and reproductive autonomy<sup>6</sup>. This emphasizes the importance of engaging women in decision-making processes at national, community, and family levels to promote gender equality and improve reproductive health outcomes.

Building upon previous research, our findings emphasize the importance of addressing socio-demographic factors and promoting women's empowerment through education, media access, and inclusion in decision-making to enhance contraceptive uptake and improve reproductive health outcomes in Punjab.

### Conclusion

All the above results and discussions can be concluded that women empowerment has become an essential ingredient for the development and advancement of the society. The empowered women in terms of active participation in their household decision-making, ownership of any assets and control over their income had more use of contraceptive use. Most importantly, demographic characteristics of the respondents such as age, number of living children, education status, residential place and access to mass media and working status of women also significantly associated with the empowerment of the women and current contraceptive use in Punjab. Unfortunately, few women are empowered, and greater number of women is subordinated. These subordinated women have less use of contraceptive methods and poor maternal health. Therefore, it is a high time to devise revolutionary and holistic measures in terms of educating and empowering women.

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