# Spouse Involvement for Postnatal Care Utilization; Community and Facility Based Cross Sectional Study

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**Abstract:**

**Introduction**
Spouse involvement for postnatal utilization providing emotional assistance, may benefit the women by decreasing stress, encouragement of positive behaviors and maintenance of emotional security during this crucial life event.
**Objectives:**
The aim of the study was to examine the role of spouse involvement in accessing postnatal care utilization among Married Women.
**Methodology**
A cross-sectional study was conducted among 300 postnatal women recruited from community and health facilities belonging to low- and middle-income families in Karachi. The study was conducted at Kausar Niazi Colony and People's Primary Health Care Initiative (PPHI) in Karachi and the study duration was four months. The data was collected by purposive sampling technique through a structured questionnaire.
**Results**
The study respondents were married women, out of which 48.3% were in the age bracket of 26- 34 years old. The education level of 51% women was Matric or Intermediate level similar to their spouses. The association of PNC utilization with spouse level of education and spouse income was significant. Women (95.8%) who deliver their child at hospital as compared to the ones, who deliver at home, utilized more PNC services similar to women who had C-Section deliveries. Majority of women utilized Health Facility based PNC services as compared to community outreach PNC services that was also highly significant. PNC utilization increased with the increase in spouse accompanying women for PNC visits (97.2%), similarly 98.6% spouse was present at the time of delivery.
**Conclusion**

The study revealed that role of spouse involvement for postnatal care measures in health care facility based and community outreach should be based on demographic and socio-economic factors such as reproductive age of women, spouse and wife level of education, spouse income, place of residence, mode of delivery, spouse accompanying women for PNC utilization, spouse present at the time of delivery and provided transport for postnatal care utilization.

**Keywords**
Spouse involvement, Maternal heath, Community-based health care, Health facility utilization and Postnatal care

## INTRODUCTION:

Postnatal care defined as the provision of care provided within 24 hours after delivery, followed by 48-72 hours, 7-14 days, and at six weeks postnatal period. These intervals are important for the well-being of both the mother and infant [1]. It is essential to enhance the utilization of postnatal services and address that the women social, financial, emotional and development needs are fulfilled on this significant time period [2].

Spouse involvement for postnatal utilization can be defined as the act of providing emotional assistance, such as expressing care and concern, or informational guidance, such as communicating important information [3]. Postnatal women may benefit from spouse involvement through decreased stress, the encouragement of positive behaviors and maintenance of emotional security during this crucial life event [4]. Furthermore, the spouse should exhibit awareness in relation to the dangers connected with postnatal care [5].

Accompanying the partner throughout the utilization of postnatal services and infant examinations and ensuring the well-being and security of the women and infant are crucial responsibilities of the spouse [6]. On a daily basis, approximately 810 women lose their lives due to preventable causes linked to complications during pregnancy and childbirth. The majority, which makes up 94% of these fatalities, happen in low-income and middle-income countries [7].

As per the report provided by the World Health Organization (WHO), over 60% of maternal deaths worldwide emerge during the postpartum period [8]. The initial seven-day period is a period of great intensity and necessitates extensive attention to be given to both women and newborns. The provision of healthcare services to the mother and newborn by healthcare professionals within the initial weeks following childbirth is referred to as early postnatal care [9]. Annually, on a global scale, 3 million infants perish during the first week of life, with an additional 900,000 passing away during the subsequent three weeks [10]. Approximately 30% of maternal fatalities occur in the postpartum period. Out of every 1000 infants born alive 17 will experience mortality within the initial month following birth [11].

In lower middle income countries spouse is frequently absent from postnatal care procedures, leaving women to take care of everything on their own. These finding contribute to recommend some strategies for spouse support to women during the postnatal period. Both the mother's and the baby's health depend on this support.

The aim of the study was to examine the role of spouse involvement in accessing postnatal care utilization. The study also identified other determinants for postnatal care utilization among married women in Karachi, Pakistan.

## Methodology:

A community and facility based cross-sectional study was conducted to determine the role of spouse involvement for postnatal care utilization. The study duration was four months. Postnatal women were recruited from community and health facility-based belonging to low- and middle-income families of Karachi. The study has been conducted at Kausar Niazi Colony and People's Primary Health care Initiative (PPHI) in Karachi. The inclusion criteria of the study were married women of reproductive age 15 to 49 years. The selected women belonged to a crucial period during which they are biologically capable of reproduction and socially engaged in family planning decisions. The study participants were postnatal women who have recently given birth within the past 6 weeks prior to the study, showed willingness to participate and provided written consent. Those postnatal women who again conceived within 3-4 months were excluded from the study. Participants with mental health problems, infant mortality or complications after delivery were excluded from the study. A total of 300 women were selected through purposive non- probability sampling technique after acquiring ethical approval from the SZABIST University. The inquiries during the interview centered on the postnatal encounters of women, and health practices (such as postnatal care visits). For the analysis of data Statistical Package for the Social Sciences (SPSS version 24) was used. Frequencies and percentages were computed for all categorical variables. Descriptive analysis showed demographic and socio-economic characteristics of women and husband and the reproductive history of last pregnancy through frequency table. Inferential statistics was undertaken to find out association between socio-economic characteristics of women and husband, level of support from husband during postnatal care utilization and community outreach PNC and health facility-based PNC. Ethical consideration was taken into account and every participant was provided with the consent form in which all information regarded study was present. The consent included the study topic, its implication and its usage.

## RESULTS:

The study respondents were 300 women during their postnatal period who were recruited from community and health facility in Karachi.

***Demographic and Socioeconomic characteristics of the Respondents:***

As shown in Table 1, 26% of women were below 25 years, 48.3% were 26- 34 years old and 25.7% were 35 years or older. A majority of women belong to Urban areas. Whereas, over two-third belong to Rural area. A majority of their spouse have completed Matric or Intermediate level. However, about one-fourth have not completed Matric and about one-fourth 27% have completed Bachelor's or Master's degrees. A majority of the women 51% have completed Matric or Intermediate level. However, about one-fourth have not completed Matric and about 19.3% have completed Bachelor's or Master's degrees. Women belong to diversified ethnic groups, one-third reported Punjabi as their mother tongue; one-fourth reported Urdu their mother tongue as Sindhi are while about 14% reported their mother tongue as Balochi and

12.7% reported their mother tongue as Pashto. Most families belong to lower and lower-middle income families; 8% report family income of less than Rs.30000; 59% report income of Rs.31000-50000; 30.3%report income of Rs.51000-70000 and 2.7% report income of more than Rs.70000. 61.7% of spouse own the house; 38.3% of spouse live on rent.

***Table 1: Demographic and Socioeconomic characteristics of the Respondents***

| *CHARACTERISTICS* | *N* | *PERCENTAGE* |
|---|---|---|
| ***Age of Women*** | | |
| Up to 25years | 78 | 26.0 |
| 26 to 34 years | 145 | 48.3 |
| 35-49 years | 77 | 25.7 |
| ***Residence*** | | |
| Rural | 45 | 15.0 |
| Urban | 255 | 85.0 |
| ***Women level of Education*** | | |
| Below Matric | 89 | 29.7 |
| Matric & Intermediate | 153 | 51.0 |
| Graduation & Master's Above | 58 | 19.3 |
| ***Spouse level of Education*** | | |
| Below Matric | 71 | 23.7 |
| Matric & Intermediate | 148 | 49.3 |
| Graduation & Master's Above | 81 | 27.0 |
| ***Ethnicity*** | | |
| Urdu | 80 | 26.7 |
| Punjabi | 96 | 32.0 |
| Balochi | 42 | 14.0 |
| Sindhi | 44 | 14.7 |
| Pashto | 38 | 12.7 |
| ***Husband's Income (per month)*** | | |
| Less than Rs.30000 | 24 | 8.0 |
| Rs.30000 – 50000 | 177 | 59.0 |
| Rs.51000-70000 | 91 | 30.3 |
| More than Rs.70000 | 8 | 2.7 |
| ***Spouse owns the house*** | | |
| Own house | 185 | 61.7 |
| On Rent | 115 | 38.3 |

***Reproductive History of Last Pregnancy:***

Table 2 shows, 80% of women deliver the child at hospital; 17.7% deliver at home and 6.3% deliver the child at clinics. Whereas, 61% women who undergo normal child birth; 39% for those who undergo C-Section deliveries. However, 26% women are below 25 years, 76.3% women visited < 3 PNC visits and 23.7% of women visited ≥ 3 visits.

***Table 2: Reproductive History of Last Pregnancy***

| *CHARACTERISTICS* | *N* | *PERCENTAGE* |
|---|---|---|
| ***Place of delivery*** | | |
| Hospital | 228 | 80.0 |
| Clinic/BHU | 19 | 6.3 |
| Home | 53 | 17.7 |
| ***Mode of delivery*** | | |
| Normal | 183 | 61.0 |
| C-Section | 117 | 39.0 |
| ***Number of PNC Visits:*** | | |
| <3 visits | 229 | 76.3 |
| ≥3 visits | 71 | 23.7 |

***Association between PNC Utilization and Spouse Socio-demographic related factors:***

Table 3 shows, the association between spouse level of education and PNC utilization of women, indicating increase in the percentage of PNC utilization as their spouse level of education increases. Thus, while only 66.2% of spouse with below matric accompany their women during PNC, it increases to 73.0% for those with matric or intermediate education and to 98.8% if the spouse has acquired graduation or higher level of education. The relationship is highly significance with p-value<0.00. However, the association between spouses Income and PNC utilization indicating increase in the percentage of PNC utilization as their spouse income increases. Thus, whereas only 64.8% of spouse whose income in between 30,000 to 50,000. The relationship is highly significance with p-value<0.00. Whereas, the association between spouses own the house you live in and PNC utilization, Thus, while 39.4% of spouse lives on rent report that their women utilize PNC; it decreases to 38.0% for those who live their own house. The relationship is highly significance with p-value >0.00. Chi-square analysis was used to determine Association between PNC Utilization and Spouse socio-demographic related factors.

***Table 3: Association between PNC Utilization and Spouse socio-demographic related factors***

| | | ***PNC* Utilization** | | |
|---|---|---|---|---|
| ***Sociodemographic factors*** | | **N (%)** | | |
| | | **Yes** | **No** | **P-value** |
| **Spouse level of Education** | Below Matric | 47(66.2) | 24(33.8) | **0.00** |
| | Matric& Intermediate | 108(73.0) | 40(27.0) | |
| | Graduation& Masters above | 80(98.8) | 01(1.2) | |
| **Spouse Income** | < Rs.30000 | 2(2.8) | 22(9.6) | **0.00** |
| | Rs.30000-50000 | 46(64.8) | 131(57.2) | |
| | Rs.51000-70000 | 16(22.5) | 75(32.8) | |

| | | | | |
|---|---|---|---|---|
| | >70000 | 07(9.9) | 01(0.4) | |
| **Spouse own the house** | Rented house | 28(39.4) | 43(60.6) | **0.82** |
| | Own house | 87(38.0) | 142(62.0) | |

**Association between PNC Utilization and Women socio-demographic and reproductive related factors:**

Table 4 shows, the association between age of women and PNC utilization, indicating increase in the percentage of PNC utilization as their age of women increases. Thus, while 54.9% women whose age-group 26-34 reported of utilizing PNC service. The relationship is highly significance with p-value <0.00. However, the association between women level of education and its PNC utilization was not significant. While 95.8% women utilize PNC who deliver their child at hospital. The relationship is highly significance with p-value <0.00. However, the association between mode of delivery and its PNC utilization. Also, 90.1% women who undergo C-Section deliveries report that utilized more PNC services. The relationship was also highly significance with p-value <0.00. The association of women whose residency was from urban areas were more likely to utilize PNC, which was also highly significance with p-value <0.00. Most families belong to lower and lower-middle income families; 84.5% of women get proper vaccinated that is offered during pregnancy report that more likely utilized PNC services.

***Table 4: Association between PNC Utilization and Women socio-demographic, and reproductive related factors***

| | | **PNC Utilization** | | |
|---|---|---|---|---|
| ***Sociodemographic factors*** | | **N (%)** | | |
| | | **Yes** | **No** | P-value |
| **Age of Women** | **Up to 25 years** | 7(9.9) | 71(31.0) | **0.00** |
| | **26-34 years** | 39(54.9) | 106(46.3) | |
| | **35-49 years** | 25(35.2) | 52(22.7) | |
| **Women level of Education** | **Below Matric** | 20(28.2) | 69(30.1) | **0.73** |
| | **Matric& Intermediate** | 35(49.3) | 118(51.5) | |
| | **Graduation& Masters above** | 16(22.5) | 42(18.3) | |
| **Residence** | **Rural** | 17(23.9) | 28(12.2) | **0.01** |
| | **Urban** | 54(76.1) | 201(87.8) | |
| **Place of delivery** | **Hospital** | 68(95.8) | 160(69.9) | **0.00** |
| | **Clinic** | 0(0.0) | 19(8.3) | |
| | **Home** | 3(4.2) | 50(21.8) | |

| | | | | |
|---|---|---|---|---|
| **Mode of delivery** | **Normal** | 7(9.9) | 176(76.9) | **0.00** |
| | **C-Section** | 64(90.1) | 53(23.1) | |
| **Mother vaccinated during PNC** | **Yes** | 60(84.5) | 150(65.5) | **0.00** |
| | **No** | 11(15.5) | 79(34.5) | |

***Association between PNC Utilization and Community Outreach and Health Facility based PNC:***

Table 5 shows, the association between PNC Utilization and Community Outreach and Health Facility based PNC. Thus, whereas only 33.8% community outreach utilized PNC services, these utilized from Health Facility based is 66.2%. The relationship is highly significance with p-value <0.00.

**Table 5: Association between PNC Utilization and Community Outreach and Health Facility based PNC**

| ***Characteristics*** | **PNC Utilization** | | |
|---|---|---|---|
| | **N (%)** | | **P-value** |
| | **Yes** | **No** | |
| **Community Outreach PNC** | 24(33.8) | 125(54.6) | **0.00** |
| **Health facility-based PNC** | 47(66.2) | 104(45.4) | |

***Association between Level of support from Spouse and PNC Utilization:***

Table 6 shows; the association between spouse accompanying women for PNC and its PNC utilization indicating increase in the percentage of husbands accompanying their women during PNC as their number of PNC visits increases. Thus, 97.2% women utilized more PNC services as their husband accompanying the women. The relationship is highly significant with p-value<0.00. However, 98.6% spouse present at the time of delivery showed insignificant association with PNC utilization at p-value>0.05. Whereas, (60.6%). The relationship was also insignificant with spouse provided transport and spouse support for postpartum family planning.

**Table 6: Association between Level of support from Spouse and PNC Utilization:**

| **Level of support from spouse** | | **PNC Utilization** | | |
|---|---|---|---|---|
| | | **N (%)** | | |
| | | **Yes** | **No** | **P-Value** |
| **Spouse accompanying women for PNC Utilization** | **Yes** | 69(97.2) | 166(72.5) | **0.00** |
| | **No** | 2(2.8) | 63(27.5) | |
| **Spouse present at the time of delivery** | **Yes** | 70(98.6) | 214(93.4) | **0.09** |
| | **No** | 1(1.4) | 15(6.6) | |
| **Spouse provided transport for PNC** | **Yes** | 66(93.0) | 174(76.0) | **0.00** |
| | **No** | 5(7.0) | 55(24.0) | |
| **Spouse provided postpartum family planning support** | **Yes** | 43(60.6) | 121(52.8) | **0.25** |
| | | | | |

| | | | | |
|---|---|---|---|---|
| | **No** | 28(39.4) | 108(47.2) | |

**Discussion:**

In developing countries, PNC is the most effective strategy for improving mother mortality rates and health outcomes. The utilization of PNC services was 33.8% in the community outreach and 66.2% was in health facility based. This prevalence is lower than that recorded in Ugandan [12], Zambia (55% %) [13], Debre Birhan Town, North Ethiopia (83.3%) [14], Indonesia (78.4%) [15], and rural Ghana (74%) [16], due to variation in healthcare infrastructure and socio-economic and cultural norms across different nations. Attending ANC sessions has been associated with mother motivation to adopt maternal healthcare practice, such as supervised delivery and the utilization of PNC services, similar to other studies conducted worldwide [18-20].

The study also indicated that urban-dwelling mothers had a higher tendency to make use of Postnatal Care (PNC) within 42 days after giving birth, regardless of the provider. This discovery aligns with numerous studies conducted at both the national and international levels [21]. Women who gave birth at healthcare institution had a greater influence to utilize Postnatal care (PNC) than women who gave birth at home similar to study conducted in Uganda, Ethiopia and Bangladesh [17,19 &20].

However, the findings of the study demonstrated that women who gave birth in their homes showed a decreased tendency to utilize postnatal healthcare services when compared to mothers who delivered at a healthcare facility. At the institutional birthing setting mothers have increased chances to gain knowledge pertaining to the significance, accessibility, and provision of postnatal care services due to their extended stay at the healthcare establishment [22].

There is a significant correlation between the income and educational attainment of a marital partner and the utilization of prenatal care (PNC) services Spouse with educational backgrounds demonstrated a higher tendency to access PNC services when compared to those without any educational qualifications. Similar results from studies in Ethiopia [17], Nigeria [23 & 24]. This phenomenon could be attributed to the notion that well-educated husbands are more adept at establishing effective communication with their spouses, facilitating discussions on the utilization of PNC services and other aspects of maternal healthcare. Consequently, this could potentially foster greater autonomy among their spouses.

Due to physical challenges related to travel and the elevated expenses linked to motorized transportation, the capacity of postpartum women to access PNC are constrained [25]. Women residing at a considerable distance from the healthcare facility encountered restricted availability of healthcare services subsequent to childbirth owing to transportation challenges and unfavorable geographical and seasonal circumstances.

**Conclusion:**

The study revealed that role of spouse involvement for postnatal care measures in health care facility based and community outreach should be tailored based on demographic and socio-economic factors such as reproductive age of women, spouse and wife level of education, spouse income, place of residence, mode of delivery, place of mother, mother vaccination, spouse accompanying women for PNC utilization, present at the time of delivery and provided transport for postnatal care utilization.

This study has pointed towards the comparison of community outreach PNC and health facility-based PNC, for utilization of postnatal services. Overall, this study concluded that in a health facility-based spouse accompanies their wife compared to a community outreach.

**Recommendations:**

The PNC service Utilization in our study is very low in community outreach PNC. However, it is important for government and healthcare institutions to prioritize their efforts towards marginalized groups such as uneducated women, those residing in rural regions, unemployed individuals and face challenges in accessing transportation, in order to enhance the utilization of PNC services. Initiating public awareness campaigns through diverse channels is crucial in highlighting positive stories of spouse involvement and its beneficial effects on the well-being of both mothers and infants. These policies may encompass provisions for spousal leave, establishment of father-friendly spaces in maternity wards, and flexibility in visitation hours.

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