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Involvement of Male Members in Care Received During Antenatal Period in Goyla Dairy, Southwest Delhi: A Cross-Sectional Study

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ABSTRACT

Background : Male involvement inantenatal care (ANC) is vital for better maternal health outcomes. It reduces morbidity and mortality risks, ensuring the quality of care for pregnant women and newborns, supporting safe motherhood, and enhancing pregnancy support.

Methodology: This cross-sectional study was conducted in Qutub Vihar, Goyla Dairy, New Delhi, from April to May 2023. It targeted men of reproductive age (106 individuals) residing in the peri-urban area. Data on men's involvement in antenatal services were collected through structured and semi-structured questionnaires. The study protocol received approval from the IIHMR Student Research Review Board, and SPSS statistics 23 was used for data analysis.

Result: The study found that mostof the male partners (92.5%) were aware of antenatal care (ANC) services, and most mothers were registered for ANC check-ups during the first trimester. Mothers-in-law played a significant role in encouraging ANC visits. Male members were having good knowledge of ANC and advised their female partners on daily physical activities and delivery plans. The study highlights the need for targeted interventions to improve awareness among a small proportion of participants and promote comprehensive support for pregnant women.

Conclusion: The study highlights the need to increase awareness and encourage male involvement in ANC in Goyla Dairy, South West Delhi, to improve timely registration and engage other family members, ultimately enhancing maternal and child health outcomes.

Keywords: *Male involvement, Antenatal, Awareness, Prenatal and Pregnancy Care.*

INTRODUCTION

Male participation in skilled ANC and delivery care is still a problem for safe motherhood throughout the world [1]. Each year, approximately 210 million women go through pregnancy [1], and out of those, around 30 million (15%) encounter complications, resulting in over 500,000 maternal deaths [2]. The World Health Organization (WHO) envisions a world where "every pregnant woman and newborn receives quality care throughout the pregnancy, childbirth, and the postnatal

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period" [3]. In the year 2015, developing countries had around 99 percent of maternal deaths and a total of 2.6 million infants were born stillborn[3].Evidence suggests that cost-effective interventions are available to prevent or treat nearly all severe maternal complications, highlighting their potential to save lives [3]. By implementing these interventions optimally, it is estimated that almost two-thirds of the global burden of maternal and neonatal diseases could be reduced [3]. Antenatal care (ANC) refers to the healthcare services delivered by trained healthcare professionals to expectant women and adolescent girls [3,4]. The main objective of ANC is to encourage the best possible health conditions for the mother and unborn child during the course of pregnancy [3,4]. The elements of ANC include risk identification, concurrent or pregnancy-related disease prevention and management, health promotion, and health education. [3,4].Antenatal care (ANC) plays a crucial role in reducing maternal and perinatal morbidity and mortality in two ways. Firstly, it directly addresses pregnancy-related complications by detecting and treating them promptly [3,5]. Secondly, it indirectly contributes to reducing risks during labor and delivery by identifying women and girls who are at a higher risk of developing complications, allowing for timely referral to the appropriate level of healthcare [3,5]. This comprehensive approach ensures better health outcomes for both mothers and babies [3,5]. Moreover, ANC serves as a crucial platform for preventing and addressing concurrent diseases, such as HIV and malaria infections, which indirectly contribute to around 25 percent of maternal deaths and near-misses. Integrated service delivery within ANC offers a significant opportunity to mitigate and manage these additional causes of maternal morbidity and mortality [3,5,6]. Depression during pregnancy can have serious implications for all family members [3,7]. Antenatal depression often precedes postnatal depression and causes great suffering to the woman and her family [3,7]. When maternal depression is not adequately managed, it can have detrimental effects on the developing fetus [3,7]. These effects stem from issues like substance abuse, inadequate prenatal care, and even suicide attempts [3,7]. Mood and anxiety disorders during pregnancy are linked to negative outcomes such as compromised fetal well-being, poor obstetric outcomes (e.g., low birth weight, preterm delivery, and high body mass index), and persistent behavioural issues in children [3,7].

Male involvement in maternal health is hindered by various barriers, including limited knowledge, social stigma, feelings of shyness or embarrassment, and work-related responsibilities [8]. It has been demonstrated that men participating in antenatal care (ANC) increase the use of maternal health services[9]. Despite the increasing recognition of the significance of male participation in ANC, it remains relatively limited, particularly in developing nations [9]. A low rate of male involvement in ANC has been linked to impeding efforts to improve maternal health and experiencing obstacles, ultimately leading to maternal mortality [9]. Several factors have been identified as influential in the involvement of men in antenatal care (ANC), such as occupation, ethnicity, religion, waiting time, staff information, and attitude [9].A study found that men's involvement in reproductive health services is significantly linked to various factors, including education, employment, income, access to media, and the number of children they have. These factors contribute to shaping the extent of male engagement in antenatal care (ANC) services[9]. Another study also shows that insufficient communication between couples often leads to men lacking knowledge or awareness of women's intentions regarding healthcare seeking, resulting in a limited understanding of women's reproductive needs [8,9]. Also, the extended waiting time for antenatal services at healthcare facilities has been identified as a contributing factor to the limited male participation in maternity care [8,9,10].

In India, according to data from NFHS-5 (2019-21), a significant percentage of women who received antenatal care (ANC) for their most recent live birth in the past five years underwent essential examinations and procedures such as weight measurement, blood, and urine sample collection, abdominal examination, and blood pressure measurement, with coverage ranging from 67% to 97% [11]. Additionally, more than half of the women received information on specific pregnancy complications, including convulsions, vaginal bleeding, prolonged labor, high blood pressure, and severe abdominal pain, with percentages ranging from 60% to 68%. Furthermore, about 80% of women were informed about where to seek help in case of pregnancy complications [11].

Regarding supplementation, 88% of women who had given birth in the past five years received or purchased iron and folic acid (IFA) tablets during pregnancy [11]. However, only 44% of them took the tablets for at least 100 days, as recommended. Additionally, only 31% of women took an intestinal parasite drug during pregnancy [11]. Relating these findings to male involvement in antenatal care, it is crucial to recognize that male partners

can play a significant role in supporting women throughout their pregnancy.

In order to improve these indicators, it is important to encourage and educate men about the importance of ANC, their role in supporting women's health, and their involvement in ANC services [7,8,9]. Men can actively participate by accompanying their partners to ANC visits, being present during discussions with healthcare providers, and assisting with medication adherence [9]. By promoting male involvement in ANC, there can be enhanced support and understanding among couples, leading to better maternal health outcomes [9,10].

The limited participation of men in antenatal care (ANC) has been associated with decreased efforts to improve maternal health and increased risks of maternal mortality [9]. Men often lack preparedness and willingness to engage in ANC, contributing to the low rate of male participation [9,10]. So, this paper is aimed to assess the knowledge, awareness, and involvementof male members in antenatal care and related service as received by the women.

Methodology

The Research study utilized a cross-sectional design and was conducted in the peri-urban area of Qutub Vihar, Goyla Dairy, located in the Southwest district of New Delhi. The study was conducted from April 2023 to May 2023 with the objective of investigating the involvement of male individuals in receiving care during the antenatal period. The Targeted population in this area was approximately 2,500 residents. The study included men of reproductive age who lived with their partners and had biological children aged up to 2 years old. For inclusion in the study, it was necessary for the men to live together with their spouses in the same household, and their partners had to either have one child or be pregnant. Married men who don't live with their partners will not be included in the study.

According to the Stat Cal sample size calculator in Epi Info, a population survey using simple random sampling requires a sample size of 106 individuals. This estimation takes into account an expected frequency of 17.7 percent, a margin of error of 5 percent, a design effect of one, and a confidence level of 95 percent.

The study employed a random sampling method, selecting participants based on their fulfillment of the selection criteria.Structured and semi-structured questionnaires were used for data collection. The questionnaires were divided into two parts: one capturing social demographic profiles and the other assessing men's involvement in antenatal services. The IIHMR Student Research Review Board approved the protocol for the study. Upon receiving informed consent, data were collected using a structured questionnaire designed with the help of a Google form. The questionnaire aimed to gather information on socioeconomic characteristics and assess knowledge, awareness, and factors that either enable or hinder male involvement in antenatal services. The Modified Kuppuswamy Scale was employed to evaluate the socioeconomic status of the participants. Statistical methods, including SPSS statistics 23, were used for data analysis.

Results

The Primary study was conducted to assess the awareness and knowledge of male members on antenatal care and related service provisions. We have collected data from n=106 male partners. We prepared the semi-structured questionnaire, and we got the following result.

1) Social demographic profiles:

Table: 1 Shows the socio-demographic profile: The majority of husbands/male participants fall into the age range of 26-35, with a total frequency of 72 (68%). A smaller percentage of husbands/male participants fall into the age groups of 41-45 (5.7%). The largest proportion of husbands/male participants (50%) have completed higher secondary school (12th grade). Also, most husbands/male participants (83%) follow the Hindu religion. The highest frequency of male participants/husbands (34%) are employed in the private sector. Both agriculture and casual labour occupations have the same frequency, with 6.60% of male participants/husbands engaged in each. The highest frequency of male participants/husbands (43.4%) falls in the income range of Rs 10001-15000. The smallest frequency (0.9%) belongs to male participants/husbands with an income greater than Rs 30000.

Table 1: Socio-demographic characteristics

Age of husband/male participant.		
Characteristics	Frequency (N)	Percentage
26-30	36	34.00%
31-35	36	34.00%
36-40	28	26.40%

41-45	6	5.70%
Education Status of the male Participant/husband		
Secondary school(10th)	34	32.10%
Higher Secondary school(12th)	53	50%
Graduate	19	17.90%
The religion of the male Participant/husband		
Hindu	88	83%
Muslim	12	11.30%
Sikh	6	5.70%
Occupation of the male Participant/husband		
Agriculture	7	6.60%
Casual labour	7	6.60%
Non- agriculture	15	14.20%
Private sector	36	34.00%
Public/Govt.	16	15.10%
Wages salary earner	25	23.60%
Income Status of the male Participant/husband (INR)		
5001-10000	14	13.20%
10001-15000	46	43.40%
15001-20000	28	26.40%
20001-25000	13	12.30%
25001-30000	4	3.80%
>30000	1	0.90%

Assessing men's involvement in antenatal services

Fig: 2.1 Awarness about ANC service

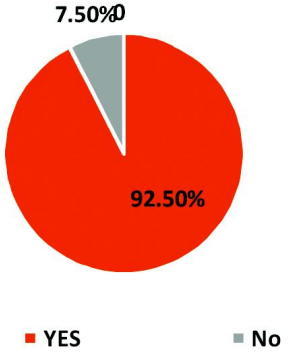

Figure2.1:This figure indicates how many male members are aware of ANC services. So, the majority of 98 male member (approximately 92.5%) are aware of ANC services, while a smaller portion of 8 male member (approximately 7.5%) are not aware.

Fig 2.2: When did your wife get registered for ANC Checkup

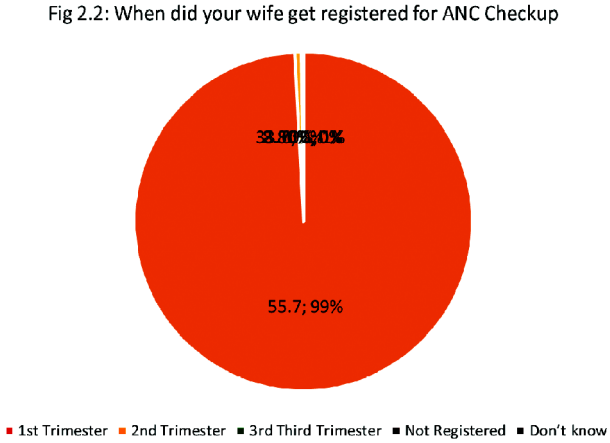

Figure 2.2:This figure shows whether the male members are aware or not aware of ANC registration during their partner's pregnancy. The majority of mothers, according to the male member (approximately 55.7%) got registered for ANC check-ups during the first trimester of their pregnancy. Around 33% of mothers got registered for ANC check-ups during the second trimester. A small percentage of mothers (approximately 2.8%) got registered for ANC check-upsduring the third trimester.

Fig 2.3 Who accompanied/encouraged your wife to visits ANC?

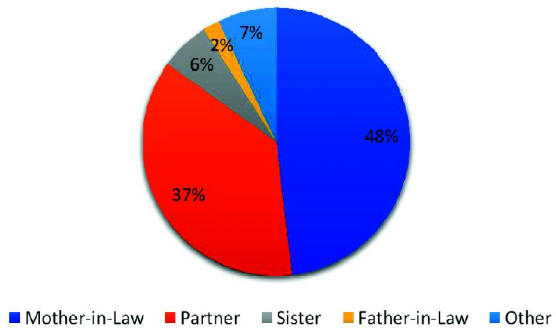

Figure 2.3: Most of the mothers (approximately 48.1%) were accompanied or encouraged by their mothers-in-law to visit ANC. Around 36.8% of women were accompanied or encouraged by their partners (husbands) to visit ANC.A small percentage of mothers (approximately 7.5%) mentioned other individuals as their accompanying or encouraging factor. These could include sisters, fathers-in-law, and other specified individuals.

Fig 2.4: Number of ANC visit during pregnancy

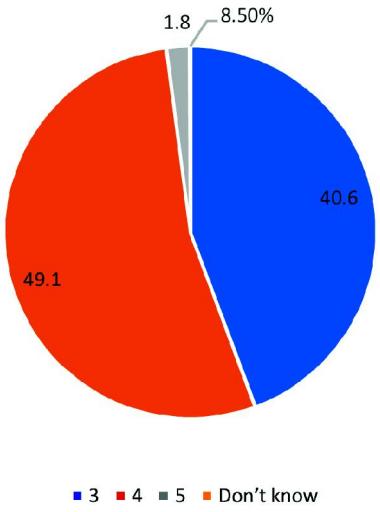

Figure 2.4: Around 49.1% of respondents mentioned having 4 ANC visits during their partner'spregnancy and a small percentage of respondents (approximately 8%) were unsure or didn't provide a specific number of ANC visits.

During antenatal check-up did you know any of these following measures had done at least once?

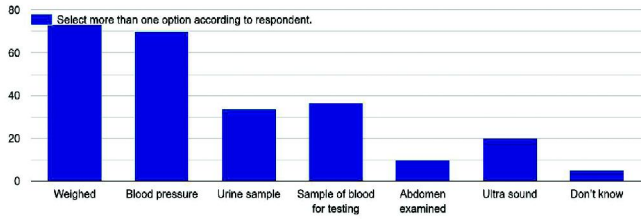

Figure 2.5:It seems that there are approximately 75 male members who are aware that their partners undergo weight and blood pressure checks during ANC (Antenatal Care) services. Additionally, 15 male members know that abdominal examination is also conducted during ANC services. However, the remaining 10 male members have no idea about the various checkups and facilities provided to their partners during ANC.

Fig 2.6 Does your take advice on IFA intake through counselling

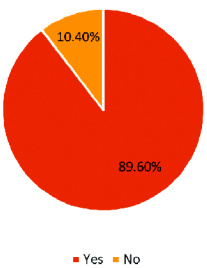

Figure 2.6: Based on the provided data, it appears that the person's partner seeks advice on IFA intake through counsellingregularly. Out of the total responses, there are 95 male members of this study agreed to have taken regular counselling for IFA and very few did not receive that.

Fig 2.7: Do you know the color of the medicine

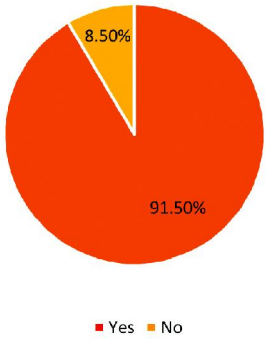

Figure 2.7: The figures indicate whether male members know the colour of IFA tablets or not. There are 97 male members (91.5%) were known about the colour of the medicine.

Fig 2.8: Are you aware about iron rich food during pregnancy

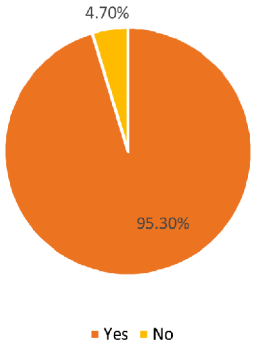

Figure 2.8:Based on the response received, it appears that there are varying levels of awareness about iron-rich consumable foods during pregnancy. Out of the total responses,most of the respondents knew about the consumption of iron-rich food during pregnancy.

Fig 2.9: Have you accampained your wife for VHND session

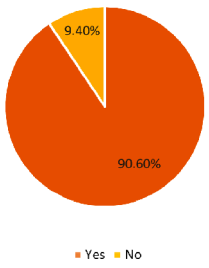

Figure 2.9:Based on the response, it appears that the individual has accompanied their partner for VHND (Village Health and Nutrition Day) sessions.

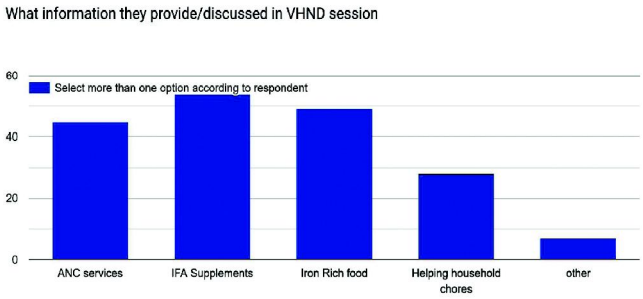

Figure 2.10: The Bar diagram shows the information provided during the VHND sessions, it' seems by an average of 45 male members that their partners are provided information about ANC services, IFA (Iron and Folic Acid) supplements, iron-rich foods, and assistance with household chores. However, 8 male members have no idea about the information provided to their partners during VHND sessions.

Figure 2.11: The figure above shows whether the individual reminds their partners to exercise during pregnancy or not. Out of the total responses, there are 108 male members (98.1%) of male members advised their partners to do regular exercise during pregnancy.

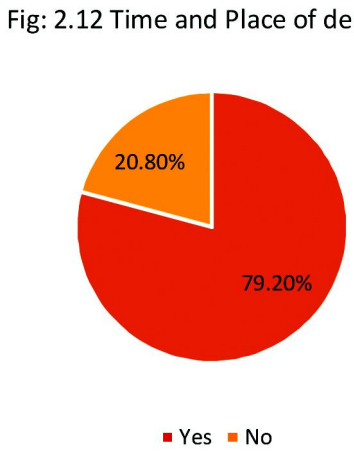

Figure 2.12: Have the husbands discussed/planned with their partner about the time and place to have the delivery? Out of the total responses, there are 84 male members (79.2%) discussed with their partners about the time and place of the delivery.

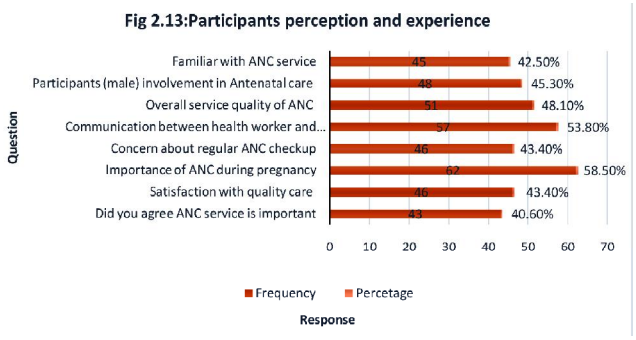

Figure 2.13: This study also assessed the perceptions and experiencesof 106 participants regarding Antenatal care (ANC) services. The findings indicated that a significant proportion of respondents 43(40.6%) recognized the importance of ANC and expressed satisfaction 46(43.4%) with the quality of care provided during ANC visits. However, many participants held a neutral stance 62(58.5%) on the perceived importance of ANC during pregnancy, and concerns 46(43.4%) about regular ANC checkups were expressed by a notable portion of respondents. Communication 57(53.8) between health workers and participants was reported to be moderate, with room for improvement, and 45(42.50%) participants were familiar with ANC service. Overall, a substantial number of participants 51(48.1%) found the overall service quality of ANC to be acceptable, while their own involvement in ANC 48(45.3%) showed a neutral stance.

DISCUSSION

The involvement of male members in the care received during the antenatal period is a crucial aspect of maternal and child healthcare. This cross-sectional study conducted in Goyla Dairy, Southwest Delhi aimed to explore the level of male member involvement in the antenatal care received by their partners.

The data provides valuable insights into the level of awareness and involvement of male members in various aspects of antenatal care. The majority of male members (approximately 92.5%) are aware of ANC services, indicating a positive trend toward understanding the importance of prenatal healthcare. However, a smaller portion of male members (approximately 7.5%) still lack awareness in this regard, highlighting the need for targeted educational initiatives to bridge this gap.

It is encouraging to note that a significant proportion of mothers (approximately 55.7%) got registered for ANC check-ups during the first trimester, which is considered ideal for early detection and management of potential pregnancy-related complications. However, there is room for improvement, as a notable percentage of mothers (approximately 33%) registered during the second trimester, and a smaller percentage (approximately 2.8%) registered during the third trimester. Timely ANC registration is crucial for ensuring optimal maternal and fetal health outcomes.

The data also indicates the influence of different individuals in encouraging mothers to visit ANC. It is noteworthy that a significant proportion of mothers (approximately 48.1%) were accompanied or encouraged by their mothers-in-law, highlighting the role of extended family support. Additionally, around 36.8% of mothers were accompanied or encouraged by their partners (husbands), indicating a positive level of involvement from male members. However, a small percentage of mothers (approximately 7.5%) mentioned other individuals as their accompanying factor, suggesting the presence of a diverse support network.

The figures related to IFA intake, knowledge about IFA tablet color, awareness of iron-rich consumable foods, and attendance at VHND sessions collectively demonstrate varying levels of awareness and involvement among male members. While the majority of male members show positive engagement, there is still a need for further education and awareness campaigns to ensure comprehensive support for their partner's health during pregnancy.

It is encouraging to see that a significant majority of male members (approximately 98.1%) remind their partners to exercise during pregnancy, emphasizing the recognition of physical activity as an essential component of maternal well-being. However, there is a notable percentage (approximately 20.8%) of male members who have not discussed or planned with their partners about the time and place of delivery, indicating the importance of facilitating open communication and shared decision-making in this aspect.

Overall, this data highlights both positive aspects and areas for improvement in the involvement of male members during the antenatal period. It underscores the significance of targeted education, increased awareness, and active participation of male members to ensure comprehensive support for their partner's health and well-being throughout pregnancy.

Limitations

The limitations of this study include possible response bias due to self-reported data, limited generalizability to other regions, the cross-sectional nature of the study, a focus primarily on male member perspectives, the absence of exploration of barriers and facilitators, and a lack of assessment of health outcomes. Despite these limitations, the study adds to the existing knowledge on male member involvement in antenatal care, and further research is needed to address these limitations and develop effective strategies for engaging male members in supporting maternal health.

Conclusion

The role of the male member's involvement is most important in ANC services. The majority of male members are aware of ANC services, indicating a positive trend in recognizing the importance of prenatal healthcare. However, a small proportion (7.5%) still lacks awareness and requires targeted education.Timely ANC registration was observed in approximately 55.7% of wives during the first trimester, but efforts are needed to increase early registration rates for better prenatal care.Male members play a supportive role, with mothers-in-law (48.1%) and partners (36.8%) encouraging partners to attend ANC appointments. The involvement of other family members should be encouraged.VHND sessions provide valuable information to mothers, including ANC services, IFA supplements, and dietary guidance. However, improved communication and outreach are needed as a few male members [8] remain unaware.Overall, involving male members in antenatal care is crucial. Targeted education and awareness programs are necessary to ensure their active participation and support for their partner's maternal health, leading to improved outcomes for mothers and children in peri-urban areas and similar communities.

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Conflicts of Interest : There are no conflicts of interest.

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