

Factors influencing first-time fathers' involvement in their wives' pregnancy and childbirth; descriptive cross-sectional study at a selected maternity hospital, Sri Lanka

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Abstract

Introduction: Pregnancy is a significant phase, bringing both pleasure and stress to women. Balancing these aspects is crucial for the well-being of both the mother and the developing baby. A partner's involvement during a pregnancy is multidimensional, encompassing emotional, practical, and active support throughout the prenatal, labour, and postpartum periods. This comprehensive involvement not only strengthens the bond between partners but also contributes to better health outcomes for both the mother and the baby. This study determined the first-time fathers' involvement during pregnancy and childbirth, assessed the informational support they received, and explored the factors influencing their level of involvement.

Methods: We conducted a descriptive cross-sectional study at the obstetric wards of De Zoya Maternal Hospital (DMH) on a convenient sample of 200 first-time fathers. The study setting was the obstetric wards of DMH. Data were collected through a pretested interviewer-administered questionnaire, including the validated "Father's Involvement in Pregnancy and Childbirth" instrument with the author's permission. The data were analysed using descriptive statistics and inferential statistics.

Results: Most participants (76.5%, n=153) were 22–31 years of age, all were employed, with a majority (57%, n=114) working an 8-hour shift daily. Additionally, 84.5% (n=169) attended antenatal education sessions. Results indicated varying levels of involvement; poor (11.5%, n=23), moderate (50%, n=100), and good (38.5%, n=77). Factors significantly impacting involvement included working hours per day and attendance at antenatal education sessions.

Conclusions: Given the suboptimal involvement observed, interventions addressing associated factors are necessary to enhance fathers' participation in their partners' pregnancy and childbirth.

Keywords: Antenatal care, first-time fathers, pregnancy and childbirth

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Introduction

Pregnancy marks one of a woman's most joyful and significant phases. Pregnant women may experience numerous changes, not only physical but mental, social and psychological changes.(1) The well-being of women during pregnancy profoundly impacts foetal health, delivery outcomes, and successful breastfeeding.(2) First-time mothers often struggle with the novel experiences brought about by pregnancy, making them more susceptible to emotional disturbances.(3) Furthermore, first-time mothers may lack the prior experience and knowledge to navigate the challenges of pregnancy with confidence.(4) Moreover, societal expectations and cultural norms surrounding pregnancy and motherhood may also impact first-time mothers' experiences.(5) The support and involvement of partners, family members, and healthcare providers play a crucial role in helping first-time mothers direct the emotional ups and downs of pregnancy.(6) The active participation of fathers during pregnancy significantly contributes to the mother's overall health.(7) A supportive and understanding partner can provide reassurance, practical assistance and emotional support, which can help alleviate stress and promote emotional well-being during this transformative period, especially for first-time pregnant women.(8)

In Asian countries, including Sri Lanka, traditionally, the focus has primarily been on maternal care, with fathers playing a secondary role.(9) With the recognition of the importance of paternal involvement for maternal and infant health outcomes, there's a growing interest in understanding the factors that influence fathers' engagement during pregnancy and childbirth. Despite this growing interest, there needs to be more research specifically focusing on the role of first-time fathers in maternal health within the Sri Lankan context. Most studies tend to prioritise maternal perspectives, overlooking the experiences and contributions of fathers. This knowledge gap hinders the development of targeted interventions and support services to involve fathers in the maternal health journey.

Therefore, this study aimed to determine first-time fathers' involvement during pregnancy and childbirth, assess the informational support they received, and explore the factors influencing their level of involvement.

Methods

A descriptive cross-sectional study was conducted at the obstetric wards of De Zoya Maternal Hospital (DMH), the primary referral centre for maternity care in Sri Lanka. First-time fathers visiting their wives in the obstetric wards at DMH who consented for participation in the study were included. The first-time fathers who had experienced stillbirth were excluded. A convenient sample was obtained. The sample size for this study was 200 participants, determined using Daniel's formula.(10) Data were collected using an interviewer-administered questionnaire.

Assessment of fathers' involvement in their wives' pregnancy and childbirth was carried out using a tool developed by Xue et al.(11) Permission to utilise this questionnaire was obtained from the authors before data collection. Section A of the questionnaire assessed the socio-demographic characteristics of the participants. Section B evaluated participants' involvement during their wives' pregnancy and childbirth through a scoring-based approach, consisting of 13 questions. Key areas of assessment included support for ultrasound scans and other medical tests, obtaining information about different stages of pregnancy, managing household responsibilities, providing emotional support to their wives, and maintaining communication with healthcare providers. Participants were required to indicate their involvement in each item using a binary response scale, where "yes" was scored as 2, and "no" or "not applicable" was scored as 0. The total scores ranged from 0 to 26, with higher scores reflecting greater levels of involvement during pregnancy and childbirth. These scores were subsequently categorised into three groups based on cut-off points; fathers who scored 20 or above were classified as having good involvement (highly involved, >75%), scores between 13 and 19 indicated moderate involvement (75%-50%), and scores of 12 or below were considered as poor involvement (<50%).(11)

Section C of the questionnaire focused on assessing the levels of informational support received by participants during pregnancy and childbirth. Participants were asked to rate their agreement with each item using a 3-point Likert scale, where 1 represented "strongly disagree" and 3 represented "strongly agree." The total scores ranged from 12 to 36, with higher scores indicating greater levels of informational support.

The total score was subsequently categorised into three groups based on predetermined cut-off points. A score of 27 or higher indicated the father had received sufficient information (>75%). Scores ranging from 18 to 26 reflected moderate informational support (50%-75%), while scores of 18 or lower were considered to be insufficient (<50%).(11)

The data were analysed using descriptive statistics, including frequencies and percentages, and inferential statistics, specifically the chi-square test. SPSS Version 25 (Statistical Package for the Social Sciences) was used as an analytical tool.

Ethical approval was granted by the Ethics Review Committee at KIU (KIU/ERC/21/218). Additionally, approval was obtained from the Ethics Review Committee at DMH (DMH/ERC/22/010), and permission was obtained from the relevant authorities. Informed written consent was obtained from the participants.

Results

Participant recruitment

A total of 224 first-time fathers were invited; however, 23 individuals did not consent and 1 was excluded due to a stillbirth. Therefore the study sample was reduced to 200 participants.

Sociodemographic features of the sample

The mean age of first-time fathers in this study was 28 years. Most participants (n= 153, 76.5%) belonged to the 22–31 age group. Over half of the participants (n=135, 67.5%) identified as Sinhalese, while 11% (n=22) identified as Tamil and 21.5% (n=43) as Muslim. A considerable portion of the sample demonstrated a strong educational background, with 27.5% (n=55) having completed secondary school, 32.5% (n=65) holding diplomas, and another 32.5% (n=65) having university degrees. Among the participants, 69.5% (n=139) were full-time employees. Over half of the sample (n=114, 57%) reported having an 8-hour workday. Regarding marital status, 65% of participants had been married for less than one year, while only 14.5% (n=29) had been married for more than two years. Regarding pregnancy, 68% (n=136) of participants had planned their pregnancies, while 32% (n=64) experienced unplanned pregnancies.

Majority of the wives of first-time fathers (n=187, 93.5%) had attended antenatal clinics, while a smaller

proportion (n=13, 6.5%) had not. Notably, only 41% (n=82) of first-time fathers had accompanied their wives to these clinic visits. Table 1 shows the sociodemographic features of the study sample.

Fathers' involvement in their wives' pregnancy and childbirth

Based on the findings, it was determined that 50% (n=100) of participants exhibited a moderate level of involvement, while 38.5% (n=77) demonstrated very good participation according to scoring criteria.

Factors associated with involvement in their wives' pregnancy and childbirth

There was a significant association of first-time fathers' involvement in their wives' pregnancy and childbirth with working hours per day and attendance at antenatal clinics. Associated factors are depicted in table 2.

First-time father's informational support and sources of support

Based on findings, 46% (n=92) of the participants acquired sufficient information, 45% (n=90) obtained a moderate level, and 9% (n=18) did not receive an adequate amount of information regarding pregnancy and childbirth. The study revealed that participants obtained information from various sources, including the internet (n=188, 94%), doctors (n=184, 92%), wives (n=180, 90%), nurses (n=178, 89%) and friends (n=96, 48%). However, only 30% (n=60) acquired information regarding pregnancy and childbirth from books, magazines, and newspapers.

Discussion

This research investigated the extent of fathers' engagement during their partner's pregnancy and childbirth and the factors influencing it. The average age of first-time fathers in this study was 28 years old, aligning closely with findings from a prior study carried out in the United States (27 years).(11) The results of the present study indicated that first-time fathers were engaged in their wives' pregnancy and childbirth. However, less than half (38.5%) of the participants exhibited a high level of involvement, which aligns with findings from a study conducted in Singapore, where only 35.2% of participants were highly engaged in their partner's pregnancy and childbirth.(12) Demands from work or career responsibilities may limit fathers' availability to

Table 1 - Sociodemographic features of the study sample (n=200)

Serial No	Variables	Frequency(n)	Percentage (%)
1	Age Category		
	41-32	45	22.5
	31-22	153	76.5
	21-12	2	1.0
	Total	200	100.0
2	Ethnicity		
	Sinhalese	135	67.5
	Tamil	22	11.0
	Muslim	43	21.5
	Total	200	100.0
3	Highest Educational Level		
	Primary School	15	7.5
	Secondary School	55	27.5
	Diploma	65	32.5
	University (bachelor's degree and above)	65	32.5
	Total	200	100.0
4	Current Employment Status		
	Self Employed	48	24.0
	Full-time employee	139	69.5
	Part-time employee	13	6.5
	Total	200	100.0
5	Working hours per day		
	5 Hr	4	2.0
	6 Hr	31	15.5
	8 Hr	114	57.0
	12 Hr	32	16.0
	24 Hr	19	9.5
	Total	200	100.0

Table 1 - Sociodemographic features of the study sample (n=200) continued...

Serial No	Variables	Frequency(n)	Percentage (%)
6	Average Income per month		
	Rs.5000 - Rs. 20000	24	12.0
	Rs.20000 - Rs.40000	18	9.0
	Rs.40000 - Rs.60000	90	45.0
	Rs.60000 - Rs.100000	39	19.5
	More than Rs.100000	29	14.5
	Total	200	100.0
7	Duration of the marriage		
	0 - 1 year	130	65.0
	2 years	41	20.5
	More than 2 years	29	14.5
	Total	200	100.0
8	Pregnancy was planned or not		
	Planned	136	68.0
	Unplanned	64	32.0
	Total	200	100.0
9	Mode of delivery		
	Normal Vaginal Delivery	120	60.0
	Assisted Delivery	2	1.0
	Caesarean Delivery	78	39.0
	Total	200	100.0
10	Duration of the pregnancy		
	24 Weeks -28Weeks	3	1.5
	28 weeks - 32 weeks	50	25.0
	32 weeks - 36 weeks	74	37.0
	36 weeks - 40 weeks	73	36.5
	Total	200	100.0

Table 2 - Factors associated with involvement level of first-time fathers

Factors	Chi-square value (χ^2)	p value
Age of the first-time fathers		
41-32	4.61	0.100
31-22		
21-12		
Ethnicity of the first-time fathers		
Sinhalese	3.49	0.175
Tamil		
Muslim		
Education level of first-time fathers		
Primary school	2.32	0.508
Secondary school		
Diploma		
University		
Employment status of the first-time fathers		
Self employed	1.91	0.385
Full-time employee		
Part-time employee		
Working hours per day of the first-time fathers*		
5 Hr	13.8	0.000
6 Hr		
8 Hr		
12 Hr		
24 Hr		
Average monthly income		
Rs.5000 - Rs. 20000	8.81	0.066
Rs.20000 - Rs.40000		
Rs.40000 - Rs.60000		
Rs.60000 - Rs.100000		
More than Rs.100000		
Duration of marriage		
0 - 1 year	5.50	0.064
2 years		
More than 2 years		
Attendance for antenatal clinics (accompanied their wives)*		
Yes	6.47	0.011
No		

p≤0.05, confidence level (CI)= 95% , *significant

attend appointments or participate in activities related to pregnancy and childbirth.(13) Additionally, a lack of awareness regarding the significance of their involvement or uncertainty about how to contribute effectively may contribute to their reduced participation.(14)

In the present study, it was found that both the number of working hours per day and attendance at antenatal clinics were significantly linked to fathers' involvement in their wives' pregnancy and childbirth. A study conducted in the United States also found a positive relationship between work conflict and fathers' involvement during the transition to parenthood, which includes the pregnancy period. (15) Fathers working long hours may experience higher levels of stress and fatigue, which can impact their ability to engage actively in pregnancy-related tasks and provide emotional support to their partners. Moreover, balancing work and family responsibilities can become challenging for fathers with long working hours, leading to conflicts between work and family roles. This conflict may result in less involvement in pregnancy-related activities.

In the current study, fewer first-time fathers participated in antenatal clinics with their partners. Attending antenatal clinics allows fathers to receive sufficient information about pregnancy, childbirth, and infant care directly from healthcare professionals. This shared knowledge enables fathers to provide support to their partners.(16) Further, current study findings reveal that less than half of the participants acquired sufficient information regarding pregnancy and childbirth and most participants had received information about pregnancy and childbirth from healthcare professionals. Antenatal educational programmes in Sri Lanka are designed for expectant mothers and focus on maternal health, childbirth preparation, and newborn care. While these programmes are valuable for mothers, they often overlook the role of fathers in the process. The lack of facilities offering antenatal educational programmes tailored explicitly for fathers is a significant gap in the healthcare system.(9) Fathers may feel uninformed and unprepared to provide adequate support to their partners during pregnancy and childbirth. This gap contributes to a lack of involvement by fathers in the process of childbirth and can impact maternal and infant health outcomes.

Limitations of the study

This was a single centre study where a convenience sampling method was used; only fathers who were

present in the obstetric wards during their wives' pregnancies were recruited.

Conclusion and recommendations

The study revealed that only a small proportion of first-time fathers established a high level of involvement during their wives' pregnancies. Key factors influencing paternal involvement included long working hours and limited attendance at antenatal clinics. To address these challenges, future research should investigate additional determinants that were not explored in this study, including cultural norms, psychological readiness, and access to family support systems. This would provide a more comprehensive understanding of fathers' knowledge, attitudes, and barriers to engagement.

Policymakers are encouraged to implement measures that promote workplace flexibility and support for first-time fathers, enabling them to actively participate in caregiving responsibilities during and after pregnancy. Initiatives such as paternity leave policies, flexible working arrangements, and workplace education programmes may significantly enhance paternal involvement. Additionally, healthcare providers should consider introducing tailored educational sessions and support services specifically designed for fathers, offered through antenatal clinics and community programmes. Enhancing accessibility to such resources, including telehealth options, could further encourage fathers to take an active role in supporting their wives throughout pregnancy and childbirth.

Declarations

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Author contributions

All authors have substantially contributed to the conception and design of the study. HHND drafted the manuscript. All authors of the paper have revised the content and approved the final version to be published. All authors are accountable for all aspects of the work.

Conflicts of Interests

The authors declare that there is no conflict of interest regarding the publication of this article.

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