

Paternal support during Antenatal, Intranatal and Postnatal period and its effect on physical and psychological outcome in Mother and Baby.

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❖ Introduction:

The birth of a child marks a period of profound change in parents. Parental love and warmth, however, already begin to develop during pregnancy. Pregnancy phase undergoes variety of emotions, ranging from excitement, happiness, anxiety, and vulnerability. These emotions keep fluctuating throughout the pregnancy and are mostly attributed to the hormonal changes a woman goes through while being pregnant. The affected mother may struggle to interact with her baby in addition to experiencing physical and emotional changes. In some cases, this can negatively impact the child's growth and development. Paternal support during the antenatal, intra-natal, and postnatal periods plays a crucial role in influencing both maternal and infant physical and psychological outcomes. Fathers occupy a dual role in the realm of perinatal mental health: partner and parent. Literature shows that in western countries, Fatherhood has changed dramatically over the last 50 years; men are becoming increasingly involved during their partner's pregnancy, attending births, and caring for infants. The support provided by fathers improves maternal emotional stability, mental well-being, and physical health. The contribution of fathers to child rearing positively influences their children's social, behavioural, and cognitive development including linguistic capabilities, academic performance, and emotional stability. However, pregnancy and child rearing are still considered as maternal domain and responsibility, which not only taxes the mother, but her entire physical and psychological health is challenged. The researcher has therefore undertaken this study to evaluate paternal involvement and the support provided by fathers and its impact on maternal and child's physical and psychological outcome in Indian perspective. Statistical data on paternal involvement during the antenatal, intra-natal, and postnatal periods reveal a wide range of involvement, heavily influenced by geographical location, cultural norms, socioeconomic status, and the context of the pregnancy. Studies show that while many fathers are keen to be more involved, systemic and cultural barriers often limit their participation.

❖ Background:

A 2025 study in India, analyzing data from 2019–2021 found that 79% of husbands accompanied their wives to ANC visits, a significant increase from 50% in 2005–2006. A 2020 study in Nigeria found that while almost 99% of men believed they had important roles to play during and after pregnancy, only about a quarter (25.1%) felt they should accompany their wives to antenatal care (ANC) clinics. A 2013 survey in England, found that over half (63%) of fathers were present for one or more ANC checks, and 89% attended at least one ultrasound examination.

Across many cultures, more fathers are present for the birth than for antenatal appointments. In England (2013) study found that 90% of fathers were present during labor. In a small 2021 study in Australia, only 1% of partners were present at the birth of their child. Reasons cited included hospital restrictions (60%) and work or distance (36%). A 2024 qualitative review confirmed a global trend of increasing paternal involvement in childbirth. The study highlighted the benefits for fathers, partners, and infants, noting that this is consistent with the World Health Organization's promotion of "humanized" birth and a family-centered approach. A 2013 survey in England, indicated that about three-quarters (72%) of fathers took paternity leave. Most fathers helped with infant care during the postnatal period. Over 75% assisted with changing diapers, bathing, feeding support, helping with a crying baby, and playing with the infant. In many low-income countries, fathers' involvement in hands-on care is lower, as childcare is culturally perceived as the mother's responsibility. Paternal postnatal depression (PPND) is an emerging area of research and is often under-diagnosed due to a lack of routine screening. Globally, increased paternal engagement is associated with better maternal and child health outcomes, including a higher likelihood of mothers initiating breastfeeding and improved maternal well-being at three months postpartum. Paternal engagement can vary by socioeconomic factors and ethnicity. Studies suggest partners of first-time mothers, those in less deprived areas, and those with planned pregnancies tend to be more involved. Fathers cite various reasons for non-involvement, such as job demands, social stigma, long waiting times at health facilities, and a perception that maternal care is a woman's responsibility.

❖ Aim:

To evaluate the impact of paternal involvement and support during the antenatal, intra-natal, and postnatal period on the physical and psychological well-being of mothers and their babies

❖ Objectives: Primary Outcome

1. To evaluate the role of paternal involvement during the antenatal period in improving maternal physical health outcomes, such as adherence to antenatal care schedules and reduced pregnancy complications.
2. To assess the paternal support on the psychological well-being of mothers during pregnancy, including stress levels, anxiety, and emotional stability.
3. To determine paternal involvement on the physical recovery of mothers post-delivery, including assistance with household or baby-related tasks.
4. To assess paternal involvement on the baby's physical health (e.g., baby's term at birth, weight, complications, growth milestones)
5. To find out association between the paternal support received and demographic variables

Secondary Outcome

1. To understand the impact on Maternal & Fetal Outcomes as below in order to prepare an educational module for paternal training
 - ✓ Reduced complications during pregnancy, labour, and postpartum
 - ✓ Reduced stress, anxiety, and depression during pregnancy and postpartum.
 - ✓ Good Birth weight and development of the neonate

❖ Research Methodology

1. Research Design: Survey questionnaire
2. Sampling Strategy: Stratified sampling technique
3. Sample Size: 165 subjects
4. Data Collection: Survey through online questionnaire
5. Data Analysis: Descriptive statistics (e.g., frequencies, means, standard deviations). Inferential statistics

❖ Inclusion/ Exclusion Criteria

1. Mothers who have delivered in last ten years
2. Mothers who have living child
3. Mothers willing to participate in study

❖ Review Of Literature:

- A qualitative study aimed to explore views and experiences of first-time fathers on the origins and development of paternal bonding during pregnancy and early childhood was conducted by Noor de Waal et.al. They conducted 30 in-depth semi-structured interviews with expectant and fathers of infants and toddlers. Two major themes were uncovered from the data: feelings of bonding and facilitators of bonding. The first theme was supported with three subthemes: 1) from abstract to concrete, 2) positive emotions, and 3) uncertainties and worries. The second theme, facilitators of bonding, was supported with four subthemes: 1) experiencing the foetus, 2) meeting the child, 3) interaction, and 4) communication. The results suggested that, in most fathers, paternal bonding originates in pregnancy and that it evolves over time. Seeing or feeling the child, both during pregnancy and postpartum, as well as interacting or communicating with the child, appears to facilitate fathers' feelings of bonding. They recommended Involving fathers in pregnancy, childbirth, and parenting as essential for their bonding process.
- Amy H Mezulis et.al. investigated whether father involvement in infancy, reduced or exacerbated the well-established adverse effect of maternal depression during a child's infancy on behavior problems in childhood. With 350 community sample, the authors found that fathers' self-reported parenting styles interacted with the amount of time fathers spent caring for their infants to moderate the longitudinal effect of maternal depression during the child's infancy behaviors. Low to medium amounts of high-warmth father involvement and high amounts of medium- or high-control father involvement at this time were associated with lower child internalizing behaviors. Paternal depression during a child's infancy exacerbated the effect of maternal depression, Results emphasized the moderating role fathers may play in reducing or exacerbating the adverse long-term effects of maternal depression during a child's infancy on later child behavior problems.
- Natasha J Cabrera et.al. examined the association between unmarried fathers' prenatal involvement and fathers' engagement later in the child's life. The study sample consisted of 1,686 fathers from the Fragile Families and Child Wellbeing Study. Findings using multiple regressions revealed that fathers' prenatal involvement is significantly and positively associated with levels of fathers' engagement at years 1 and 3. This association was partially explained by fathers' transitions from unemployment to employment and to a greater extent by fathers' transitions from non-residential to residential relationships with the child's mother.

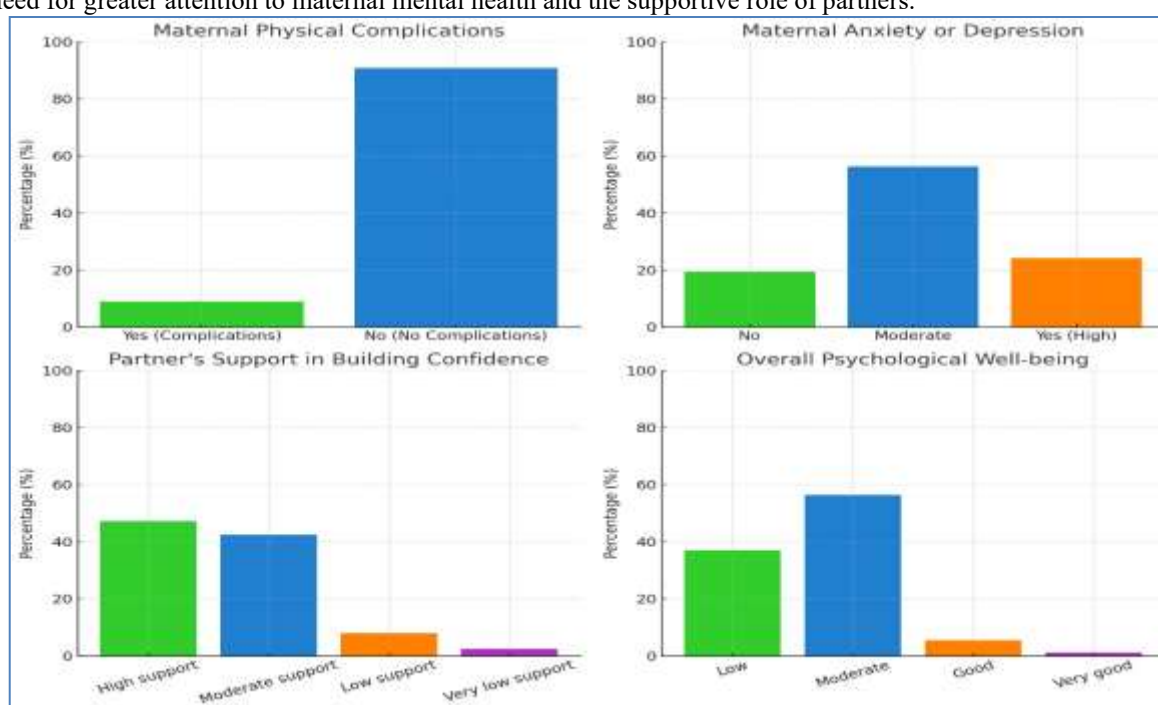
❖ Results:

The cumulative percentage indicates that over 99% of the mothers are aged above 20 years, with the majority being above 30 years. This suggests that most mothers in the sample are in their late twenties to early thirties. Most fathers (82.4%) in the sample were in their early to late thirties or older, reflecting a predominantly mature paternal age group. Most parents in the study had **moderate to high education**. Fathers were more concentrated in **level 3 (42.4%)**, while mothers were more evenly distributed between levels **3 and 4**. Very few parents had only **basic/low education (level 1)**. This suggests that the sample population has a **fairly educated parental background**, which can positively influence children's learning and health-seeking behaviors. **Mothers** were largely homemakers or engaged in unskilled/semi-skilled work, with very few in professional categories. **Fathers** predominantly had skilled or moderately skilled occupations, suggesting they were the primary breadwinners. The **family structure** leaned more towards nuclear setups (60%), which aligns with modern urban living trends. The **residence pattern** indicates that most participants belonged to urban areas (78.8%), reflecting better exposure to education, health services, and employment opportunities. The sociodemographic profile suggests a **moderately educated, urban-based, and nuclear-family dominant population**, where **fathers are more occupationally engaged than mothers**. Regarding the Paternal support in antenatal period, more than half of the fathers (54.5%) provided moderate support during pregnancy, while around one-third (35.2%) showed low support. Very few showed good or very good involvement.

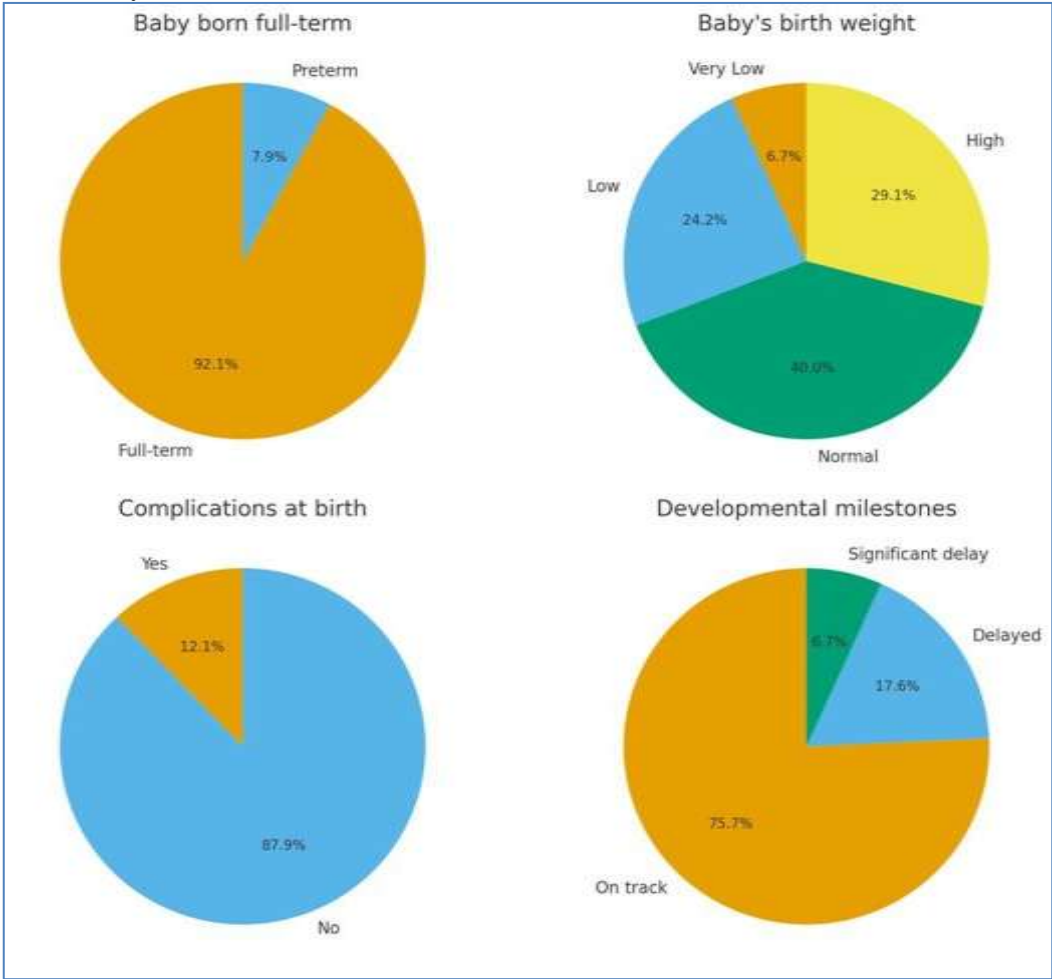
In Paternal Support During Intranatal Period, 78.8% (majority) received support at a moderate level, whereas, only about one-fifth (21.2%) provided good support. No cases of low or very good support. Postnatally, paternal involvement declined: nearly half (43.6%) of the fathers provided low support, while another 43% gave moderate support. Only a small fraction (13.3%) showed good or very good support. The findings reveal that **paternal support was most consistent during the intranatal period** (majority moderate), but **declined significantly in the postnatal period**, when the mother and newborn arguably need continued care. This suggests that fathers may recognize the importance of being present during delivery but are less engaged in ongoing maternal and newborn care.

Regarding Maternal Physical and Psychological Well-being, the findings revealed that a large majority of mothers (90.9%) did not experience any physical complications during the perinatal period, while only 9.1% reported such difficulties. With regard to psychological well-being, more than half of the participants (56.4%) reported experiencing anxiety or depressive symptoms at some point, whereas 19.4% denied such concerns and 24.2% expressed them to a greater extent, suggesting that emotional distress was relatively common among the study population.

Partner's support was reported to play an important role in building maternal confidence. Almost half of the respondents (47.3%) indicated a high level of support, while 42.4% reported a moderate level of support. Only a small proportion (10.3%) felt that their partner's support was minimal or inadequate. This emphasizes the positive influence of paternal involvement in enhancing maternal self-confidence during the perinatal period. In terms of overall psychological well-being, more than half of the respondents (56.4%) rated their well-being as satisfactory, while 37.0% considered it lower. Only a minority (6.7%) reported good to very good psychological well-being. This suggests that although physical health outcomes were generally favourable, a considerable number of mothers faced psychological challenges, underscoring the need for greater attention to maternal mental health and the supportive role of partners.



Interpretation of Baby’s Outcome



The analysis of neonatal outcomes revealed that the majority of babies (92.1%) were born full- term, whereas only a small proportion (7.9%) were preterm. Regarding birth weight, most infants (40%) had weights within the normal range, followed by 29.1% with slightly higher weights, and 24.2% in the lower range. Only 6.7% of babies were recorded with very low birth weight. At birth, complications were relatively uncommon, with 87.9% of neonates experiencing no complications, while 12.1% faced some difficulties. Assessment of developmental milestones indicated that a large majority of children (75.8%) were meeting expected milestones for their age. However, 17.6% showed delayed progress, and 6.7% had significant delays. Overall, these findings suggest that while most neonates had favourable birth outcomes, attention is needed for the minority experiencing low birth weight, complications at birth, or developmental delays, highlighting the importance of early paediatric and developmental monitoring.

Association by ANOVA method between overall Paternal support and Demographic variables, Mothers well-being and Baby parameters.

Sr.	Variable	F-	p- value	Significance at	Interpretation
1	Age of Mother	0.69	0.559	Not Significant	Maternal age not associated with outcomes.
2	Age of Father	1.31	0.254	Not Significant	Paternal age not associated with outcomes.
3	Education of Mother	3.46	0.018	Significant	Higher maternal education influences
4	Education of Father	0.65	0.583	Not Significant	Paternal education not associated with
5	Occupation of	0.15	0.928	Not Significant	Maternal occupation has no effect.
6	Occupation of Father	0.28	0.839	Not Significant	Paternal occupation has no effect.
7	Type of Family	0.28	0.593	Not Significant	Family structure not associated with outcomes.
8	Residence	0.01	0.993	Not Significant	Place of residence has no effect.
9	Physical Complications	0.85	0.359	Not Significant	Physical complications not significantly
10	Maternal	5.30	0.006	Not Significant*	No strong association detected
11	Partner’s Support in	18.63	<0.001	Significant	Strong paternal support improves maternal

12	Overall Psychological	12.71	<0.001	Significant	Psychological well-being significantly
13	Baby born Full-term	8.61	0.004	Significant	Gestational maturity is a significant factor.
14	Baby's Birth Weight	0.21	0.889	Not Significant	Birth weight not associated with outcomes.
15	Complications	0.10	0.750	Not Significant	Neonatal complications not
16	Developmental	0.61	0.544	Not Significant	Developmental progress not

The association between selected demographic variables and maternal/paternal support, maternal well-being, and neonatal outcomes was examined using F-test statistics at a 0.05 level of significance.

The findings revealed that **mother's education** showed a statistically significant association ($F = 3.46$, $p = 0.018$), indicating that higher educational attainment of the mother was positively related to the study variables. Similarly, **partner's support in building confidence** ($F = 18.63$, $p < 0.001$) and **overall psychological well-being of the mother** ($F = 12.71$, $p < 0.001$) demonstrated highly significant associations, highlighting the crucial role of paternal involvement and maternal mental health in influencing outcomes. In addition, the variable **whether the baby was born full-term** also showed a significant association ($F = 8.61$, $p = 0.004$), suggesting that gestational duration was significantly related to the measured aspects.

In contrast, other demographic and clinical variables such as **age of the parents, occupation of parents, type of family, place of residence, physical complications, maternal anxiety/depression, baby's birth weight, neonatal complications at birth, and developmental milestones** did not show statistically significant associations ($p > 0.05$).

Thus, the study concludes that **maternal education, psychological well-being, and partner support are central to improving maternal and child health outcomes**. These findings emphasize the need for health professionals and policymakers to promote women's education, encourage active paternal participation in maternal care, and integrate psychological support services into maternal health programs to achieve holistic well-being for mothers and their children.

Recommendations and Implications for Nursing Practice and Policy

Nursing professionals and public health authorities should advocate for and support educational initiatives targeting young women, as maternal education was found to significantly influence outcomes.

Antenatal and postnatal counseling sessions should actively include fathers to strengthen partner support, which was shown to enhance maternal confidence and psychological well-being.

Since maternal psychological well-being was strongly associated with outcomes, routine screening for anxiety, depression, and stress should be incorporated into antenatal and postnatal care.

Policymakers should create supportive policies that encourage paternal leave, workplace flexibility, and community support programs to enhance father's engagement in maternal care.

Nursing curricula should highlight the role of paternal involvement, maternal psychological well-being, and holistic family-centered care.

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