



Urban–Rural Disparities in Maternal Newborn Care Practices: A Study from Government Hospitals in Davangere, Karnataka, India

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ABSTRACT

Background: The blend of scientific and culture based practices in new born care has created a good bridge in elevating the health status of a newborn. Generally, the urban mothers follow scientific practice in newborn care than rural mothers who are bond to follow the traditional methods in practice of new born care. This study was planned to identify the differences in maternal new born care in urban and rural setting.

Objectives

To assess the maternal new-born care practices among urban and rural mothers and To find the association between maternal new-born care practice scores and selected socio-demographic variables among urban and rural mothers

Methods: The comparative-descriptive research design was adopted. on probability, Purposive sampling technique was used to select 150 mothers (75 urban & 75 rural) at primary health care centers, Chigateri (rural) and Government District Hospital (urban), respectively, Davangere district, Karnataka. Data related to maternal new born care practice was collected using pre-validated structured practice checklist. The correct response to the checklist awarded 01 score, giving a maximum practice score of 25. The obtained data was subjected to statistical analysis using SPSS.17.0 version.

Results: The descriptive analysis revealed that the mean practice score of urban mothers was $\bar{x} = 17.53$ with mean percentage of 70% and the rural mothers was $\bar{x} = 16.02$ with mean percentage of 65%. Whereas in inferential analysis, the Chi square test (χ^2) showed that there was no significant association between maternal new-born care practice scores and selected socio-demographic variables among urban and rural mothers at 5% level.

Conclusion: Our study attempted to assess the maternal new born care practice like Rooming in, early and exclusive breast feeding followed by traditional practices among mothers and concluded that both urban and rural mothers lack clear knowledge regarding new born care practices and mixes both traditional method and scientific practices as evident in their practice routine. Therefore, rigorous training programme on maternal new born care practice can help to bridge the gap and promote scientific favorable practices.

INTRODUCTION:

The early years of life are critical for a child's development. Newborn care includes essential practices such as breastfeeding, immunization, maintaining warmth and proper hygiene. Mother plays a crucial role in ensuring the well-being of their newborns.¹Despite the traditional and cultural influence on mothers, there is a shift in health

seeking behaviour of mothers relying on safe health practise in new born care secondary to the influence of health care providers in urban and ASHA workers in rural.²

The global scenario projects that around 2.3million (2022) that is 47% of the under five children death occurs in the first week of a child life due to lack or faulty maternal new-born care, especially in under developed and developing nations.

The importance for new born care globally was highlighted by forming 194 members, 67th world health assembly endorsed action plan on maternal new born care led by WHO & UNICEF.³

In India, the maternal new born care practise varies from communities to communities (urban and rural) but an upsurge is seen in good new born care practise over a period of time due to implementation of programmes like Janani Suraksha Yojana, home based new born care and RMNCAH+N strategy. The statistic shows that the neonatal mortality rate was 19 for every 1000 live births among which pre-maturity accounts for 44.7%, neonatal pneumonia accounts for 10%, sepsis accounts for 5.3% and other causes account for 40% which includes faulty practises by mothers in care of newborn.⁴

The urban and rural populations experiencing different challenges in accessing healthcare resources, maternal education, household setup, traditional and cultural practices, understanding these gaps is essential in improving new born care.⁵ There is a significant gap in the knowledge and practices of routine newborn care among mothers in both urban and rural settings.⁶

On review of records of neonatal care practices by mothers at Davangere district, it was found that more than nearly 30% neonatal infections and malnutrition is because of faulty maternal newborn care practice or negligence and unsafe local practices in rural and urban areas.

Most of the mothers were still not aware of importance of hand washing technique, rooming in, compulsory breast feeding, immunization and proper nutrition in development of new born. To bridge the gap of knowledge, improve the practice and modify the attitude towards importance of maternal new born care, researcher has selected this topic. The purpose of the study was to assess the existing practices of mother regarding routine newborn care, focusing on the differences between urban and rural mother in Davangere district, Karnataka.

Objectives

1. To assess the maternal new-born care practices among urban and rural mothers.
2. To find the association between maternal new-born care practice scores and selected socio-demographic variables among urban and rural mothers

MATERIALS AND METHODS⁷

Research Approach: Quantitative approach

Design of the research: Comparative-Descriptive research design

Source of Data: Data was collected from mothers of children less than one year at primary health care center, Chagatai (rural) and Government District Hospital (urban), respectively, Davangere district, Karnataka. A criteria

checklist was employed to assess the practices of the mothers.

VARIABLES

Demographic variables

Mothers Age, Religion, Habitat, Type of family, Educational status, Occupation, Income, Type of delivery, Parity, Source of information, Living status of children

Research variables

Practice regarding maternal new-born care (Rooming in, early and exclusive breast feeding & traditional practices).

Setting : The study was conducted at primary health care center, Chigateri(rural) and Government District Hospital(urban), respectively, Davangere district, Karnataka.

Sample: Urban & rural mothers of infant were selected as samples of the research.

Criteria for Selection of Samples

Samples were selected on the bases of **inclusion** and the **exclusion criteria**.

a) Inclusion Criteria

1. Mothers of children up to 01 year of age.
2. Mothers who gave the written informed consent to participate in the study.

b) Exclusion Criteria

1. Mothers of under one-year children who are not available during data collection
2. Mothers who are from health service department.

Sampling Technique

Non-probability Purposive Sampling Technique was used to choose the Samples as the intent of researcher was to compare urban and rural mothers, precisely, random sampling could not be applied due to large sample size.

Total Sample Size

Sample size of the study was 150mothers (75 rural and 75 urban mothers).

Duration of data collection

The data was collected from August 2024 to December 2024(05 months).

Tool for data collection: The Tool was prepared under four Segments.

Part I -Socio-demographic questionnaire of mothers. The socio-demographic tool included 11 items

Part II-Structured Practice Checklist (SPC)

The SPC included 25items. The correct response to the checklist awarded 01 score and wrong response awarded 00 score, giving a minimum score of 00 & maximum practice score of 25. Interpretation of Scoring Categories is as follows:

Adequate (Favorable) : 20 - 25 marks
Moderately Adequate (Moderately favorable):14- 19 marks
Unfavorable : 0 - 13 marks

Maximum Score = 25 marks

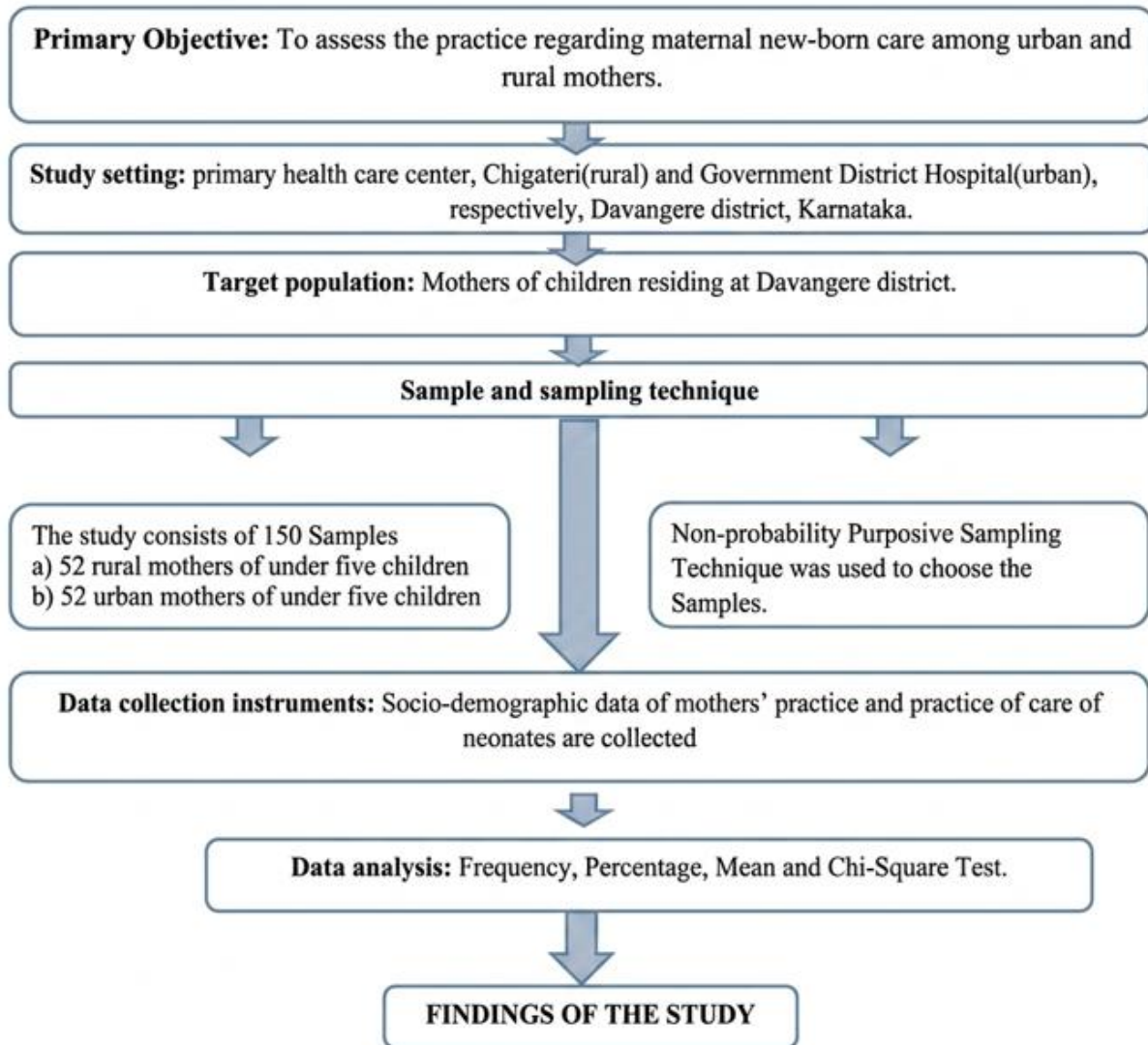
Validity and Reliability

Tool was validated by the 7 subject experts, 1 statistician and 1 language expert. Reliability coefficient of the tool was found to be 0.93.

Ethical clearance: An IEC committee of RCON approves the study with reference Number 13/5-2024

Data Analysis: Data was analyzed using descriptive measures like Mean, percentage and inferential measures like Chi square test SPSS.17.0 version.

Flow chart of the study:



RESULTS

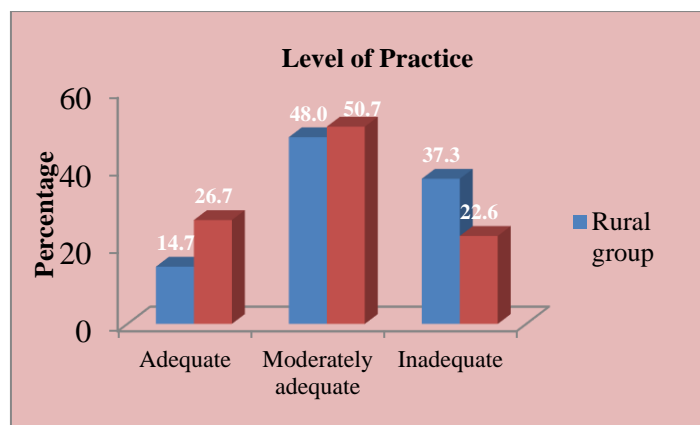
The finding of the study is spread in two parts

Part I -Assessment of Practice of mothers (urban & rural) on maternal New-born care.

Table 01: Distribution of mothers by level of practice on maternal newborn care **N=150**

Level of Practice	Rural Mothers		Urban mothers	
	f	Percentage	f	Percentage
Adequate	11	14.7	20	26.7
Moderately adequate	36	48.0	38	50.7
Inadequate	28	37.3	17	22.7
Total	75	100.0	75	100.0

The data in the table-01 and graph-01 Shows that maximum rural mothers 48% of them had moderately adequate practice & maximum urban mothers 50.7% of them had moderately adequate practice



Graph-1: Distribution of the mothers according to their level of practice scores.

The mean practice score for urban mothers was 17.53(70%) & rural mothers scored 16.02(65%) depicting urban mothers performed better in practices than rural and both groups showed room for improvement.

Part II - Association of Practice of mothers (urban & rural) on maternal New-born care with selected socio-demographical variable.

Associations between levels of maternal newborn care practice of mothers with their socio- demographic variables – **Rural & Urban.**

The Chi Square test was performed and reported in our study, which revealed that the demographic variables age, religion, habitat, type of the family, educational status, occupation, income, type of delivery, parity and gender of child, source of information and living status were not significantly associated with practice scores on maternal newborn care of **rural and urban mothers** at 5% level.

DISCUSSION

Newborn care is a critical component of maternal and child health, ensuring the survival and well-being of infants during the neonatal period. In urban and rural settings, variations exist in the knowledge and practice of the routine newborn care due to socio-economic, educational and cultural differences.⁰⁸

The key findings of the study regarding maternal newborn care practice of urban and rural mothers and the influence of socio-demographic variables on maternal newborn care is discussed below

Discussion on the findings related to practice among urban and rural mothers regarding maternal newborn care

The study findings highlight the disparities in newborn care practices between urban and rural mothers:

Inadequate practice scores: The results indicate that 37.3% of rural mothers and 22.7% of urban mothers demonstrated inadequate practice regarding routine newborn care. **Moderately adequate practice scores:**

The majority of both rural and urban mothers fall into the category of moderately adequate practice scores, with 48% of rural mothers and 50.7% of urban mothers.

Adequate practice scores: Only 14.7% of rural mothers and 26.7% of urban mothers achieved adequate practice scores.

The findings of my study is supported by a study conducted on cultural practice and determinants of new born care, where the findings show that, the pre lacteal and top feeding practices and cultural impediment was high.⁹

Similarly, another study on comparison of knowledge and practice of urban and rural mothers on neonatal care at Ajmer, Rajasthan showed that Knowledge and practice regarding “Exclusive Breast feeding” was 84.39% and 68.20% among urban mothers and rural mothers respectively. Knowledge and practice regarding Skin care and baby bath was 28.29% and 18.46% in Urban and Rural mothers respectively. Knowledge and practice regarding immunization at birth was 70.7% and 35.89% in Urban and Rural mothers respectively. The above findings converge with the findings of this study complementing it.¹⁰

A longitudinal panel design study on Home-based optimal newborn care practice and associated factors among mothers in Ethiopia showed that the maternal newborn care practice was lower in rural than in urban mothers, hence, supported the findings of this study.¹¹

No significant association between practice scores and selected socio-demographic variables:

The present study found no significant association between practice scores among urban and rural mothers and their socio-demographic variables. The findings of this study diverge when compared to other studies like an exploratory study on the awareness of newborn care among mothers at SSD Mahabir Dal Hospital, Haryana shows significant association between Age, educational status, family monthly income, type of family and occupation and knowledge scores at 5% level of significance.¹²

IMPLICATION OF THE STUDY:

The study findings have several implications for new born care practice, guidelines, policies and programs:

In Nursing Practice-The nurse practitioners can understand the gaps in newborn care & based on need, new born care practice guidelines can be demonstrated to mothers or urban and rural community.

In Nursing Education-Nurse educators can use the findings of this study to understand what different strategies can be adapted to enhance and sustain high new born care practice.

Policy Making & Community programs-Incentives on BFHI practices, institutional deliveries and appropriate family planning methods can help to render complete, non-compromised care to a newborn.

CONCLUSION

The present study found that both the urban and rural mothers exhibited moderately favorable practices regarding routine newborn care. While urban mothers performed slightly better, there was still a need for improvement in both areas. The study underscores critical disparities in newborn care practices between urban and rural mothers in Davangere, Karnataka.

A randomized controlled trial can be done on newborn care practices by mother for better consistency & generalization. By strengthening maternal education and providing adequate healthcare support, significant improvements can be made in newborn care practices, ultimately reducing neonatal morbidity and mortality rates in both urban and rural settings.

Conflict of interest statement: Nil

Source of Funding: Self

Ethical approval: Approved

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