



Empowering Motherhood: Maternity Wear Solutions for Women in Rural and Peri-Urban Areas - Bridging the Gap through Innovative Fashion and Inclusive Support

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Abstract

Background: Maternity wear holds immense significance in catering to the unique needs of pregnant women, accommodating their evolving body shapes and ensuring their comfort throughout the nine-month journey of pregnancy. Beyond functionality, maternity wear also serves as a means to enhance the inherent beauty of expectant mothers. This study delves into the maternity wear choices of women residing in rural and peri-urban regions of India. By engaging a sample of approximately 200 women, we employed descriptive and quantitative research methods. Employing ANOVA and regression coefficient analyses, we explored the participants' perspectives on body image and identified their preferences for comfortable, soft, eco-friendly fabrics that amalgamate fashion-forward designs. Furthermore, we emphasize the necessity for future investigations involving larger sample sizes to bolster the generalizability of our findings.

Keywords: Gestation period, Maturation, Anthropometric body changes, Body image, Eco-friendly fabric, Fashionable, Maternity garment, Peri-urban,

Introduction:

In recent decades, rural and peri-urban regions have undergone significant transformations as a result of globalization and the digital revolution. Alongside these changes, women's social status has improved due to economic growth and access to education. Consequently, the fashion and lifestyle of women have also experienced dramatic shifts. This evolution has influenced the clothing needs of pregnant women in modern times.

Pregnancy is a captivating phase during which a woman's body undergoes numerous significant changes over the course of nine months, including weight gain, fat deposition, and increased abdominal girth [1]. As a result, pregnant women may feel unattractive, uncomfortable, and self-conscious about their body image. Their bodies undergo physical transformations, necessitating the use of maternity wear that is both comfortable and soft, accommodating these changes throughout the entire pregnancy period [2].

In the past, draped and makeshift garments were commonly used in India, with pregnant women not specifically opting for maternity wear. However, with time, there has been an increased demand and consumption of maternity wear in rural and peri-urban areas. This growing demand has led to a plethora of options for maternity apparel, highlighting the need for the best solution in providing maternity wear to women residing in these regions.

Pregnant women face difficulties in finding garments that adequately accommodate their changing waist, abdomen, hips, and legs during maternity [3]. There is a need to design proper maternity clothing that addresses these anthropometric requirements. Weight gain during pregnancy is not evenly distributed, with certain body parts experiencing more prominent growth, such as the hands, thighs, and biceps. The current availability of plus-size garments in India does not effectively meet the needs of pregnant women, often resulting in ill-fitting and unflattering attire in both vertical and horizontal dimensions [4]. Additionally, maternity wear can be perceived as expensive since its usability is limited to the duration of pregnancy, as oversized flares designed to cover the baby bump are no longer needed post-delivery. Considering these challenges, this study aims to identify the best maternity wear solutions for pregnant women in rural and peri-urban regions during the second and third trimesters.

Motherhood is a significant phase in a woman's life, but it can also be accompanied by life-threatening complications that require immediate medical attention. Unfortunately, there exists a substantial disparity between urban and rural maternity healthcare systems. Pregnant women in rural and peri-urban areas face challenges accessing proper maternity care due to their remote locations [5]. In India, these women also encounter difficulties in finding suitable maternity wear as the locally available garments lack proper construction and are made from uncomfortable and non-absorbent materials. This study aims to identify the preferred maternity wear choices for pregnant women in rural and peri-urban areas. Additionally, it seeks to examine the body changes experienced during pregnancy in relation to clothing and recommend the most suitable and comfortable maternity garments for these women.

Aims and objectives of study

The study aims to explore approaches and choices regarding maternity wear for pregnant women in rural and peri-urban areas of India through descriptive research. The specific objectives are as follows:

1. To assess and understand the bodily changes that occur during pregnancy in relation to garments.
2. To examine the prevailing preferences for maternity clothing during the maternity period.
3. To design maternity wear that is best suited to meet the needs of pregnant women.
4. To recommend comfortable and stylish maternity wear options.

Literature review

Study of maternal care in rural areas .

In rural India, maternal care faces significant challenges, leading to maternal deaths caused by various direct factors such as infections, excessive bleeding, obstructed labor, pregnancy-induced hypertension, and other complications [6]. These deaths, which are preventable, highlight the lack of accessible and adequate maternal health services during pregnancy and post-childbirth. The situation worsens in rural areas, where less than half of women receive any care during pregnancy, and pregnant women have limited access to antenatal care [7]. Factors such as limited knowledge about maternal care, long distances to maternal and child health centers, and reliance on unskilled birth attendants contribute to the hindrance in seeking antenatal care in rural areas. Home deliveries, often facilitated by traditional birth attendants (daimaas) without skilled healthcare professionals, result in complications, unhygienic conditions, and infections, contributing to maternal deaths within rural Indian communities. These disparities in maternal care highlight a substantial gap between urban and rural areas in India.

The Significance of Maternity Wear: Accommodating Changes with Comfort

Maternity wear holds significant importance as it caters to the unique bodily changes experienced by pregnant women, providing the necessary space to accommodate their anthropometric growth. The Indian textile industry is gradually recognizing the significance of maternity wear. During pregnancy, wearing appropriate clothing that is comfortable and easy to wear is crucial. The choice of fabric, texture, and material in maternity garments is important to ensure they are lightweight, comfortable, and breathable for pregnant women. The design and appearance of maternity clothing should provide proper support and allow freedom of movement for the abdominal area [8]. It is essential that maternity dresses do not exert pressure on the abdominal region during pregnancy. These aspects must be taken into consideration when designing maternity garments for pregnant women. However, it has been observed that women in rural Indian communities have limited awareness regarding the importance of maternity wear, which will be further explored in the upcoming section.

Challenges of Rural Maternity Garments for Pregnant Women in India

Challenges Faced by Rural Pregnant Women in India Regarding Maternity Garments In contrast to the changing trends where pregnant women proudly embrace their "baby bump" and have access to various types of maternity clothing in urban areas, rural communities in India face a different reality. Women in rural communities have limited options when it comes to choosing maternity garments and, more importantly, lack awareness about the significance of maternity wear in enhancing their aesthetic appeal during pregnancy [9]. There is a notable disparity in how rural women approach their pregnancies and the type of clothing they wear compared to their urban counterparts. They have limited access to maternity wear and often have to make do with garments available in their local areas, which are ill-fitting and made from uncomfortable materials. A study conducted in rural areas of Punjab revealed that pregnant women expressed dissatisfaction with the available maternity wear in local shops and preferred garments made of cotton material [10]. Therefore, this study aims to address the specific needs and provide solutions for maternity wear among pregnant women in rural areas.

The previous literature review on maternity wear has contributed to filling the knowledge gap regarding maternity care in India. It is evident that rural communities face limited access to prenatal and antenatal care services, resulting in severe pregnancy complications and maternal deaths. Unskilled village women often conduct deliveries, putting new mothers at risk of infections, excessive blood loss, and other complications. Furthermore, there is a lack of awareness regarding the importance of maternity wear, which fails to meet the specific bodily requirements during pregnancy. However, there is still a knowledge gap regarding the usage of maternity wear in rural communities in India, with few studies addressing the anthropometric needs of pregnant women in such settings.

Methodology

The present study will employ a descriptive and quantitative research methodology to fulfil its objectives and gather information from the sample respondents regarding the research question. Data will be collected through primary and secondary data collection methods. Secondary data, obtained from journals, books, and articles on maternity care and wear in rural India, will provide factual knowledge. Primary data will be gathered through questionnaire-based surveys targeting pregnant women and those who have experienced pregnancy in rural regions of India. The sample population will consist of 200 women, including Non-Hispanic White, Black or African American, Hispanic or Latino, Asian or Asian American, Hawaiian or other Pacific Islander, and American Indian or Alaska Native participants. The study will analyse anthropometric parameters such as BMI during

pregnancy, as well as other pregnancy-related factors such as stage and number of pregnancies, and women's feelings about body shape. Collected data will be analysed using statistical and numerical approaches. Ethical considerations will be upheld throughout the research, with informed consent obtained from respondents and strict maintenance of confidentiality, anonymity, and minimal risk of harm.

Data Analysis

The collected data was analysed using descriptive and inferential statistical methods. Descriptive statistics were employed to summarize the data, while inferential statistics such as ANOVA, Pearson correlation coefficient, and Multiple Regression were utilized to derive meaningful insights. The SPSS software was employed to analyse the questionnaire data. Additionally, reliability tests were conducted to ensure the questionnaire's consistency and reliability. These analyses have facilitated an understanding of the knowledge, preferences, and accessibility of maternity wear among rural women.

Summary of Descriptive Statistics

The study included respondents from rural areas of India who were surveyed through questionnaires. The demographic characteristics of the participants were as follows:

Age: The majority of respondents (45.5%) were between the ages of 26-30, followed by 25.5% in the 31-35 age group. Participants in the 20-25 and 36-41 age groups accounted for 17.5% and 11.5%, respectively.

Ethnic Background: Among the participants, 32% identified as Asian or Asian American, 26% as Hawaiian or other Pacific Islander, 18.5% as Hispanic or Latino, and smaller proportions as Non-Hispanic White (9.5%), Black or African American (7.5%), and American Indian or Alaska Native (6.5%).

Education: The educational attainment of the respondents varied, with 39.5% holding bachelor's degrees, 36.5% having master's degrees, 16% completing intermediate education, 4.5% with a high school education or less, and 3.5% having no formal education.

Family Income: Approximately 33% of women had a family income of 700,001 and above per year, followed by 32% in the 500,001 to 700,000 range, 21% in the 300,001 to 500,000 range, 7.5% in the 100,001 to 300,000 range, and 6.5% with an income of 100,000 or less per year.

Pre-pregnancy BMI: The analysis revealed that 39% of women were classified as obese (BMI above 30), 25.5% were overweight (BMI 25-30), 19.5% had a normal weight (BMI 20-24), and 16% were underweight (BMI under 20).

Stage of Pregnancy: The majority of respondents (34.5%) were in the 8th month of pregnancy, followed by 33.0% in the 7th month, and 16% in the 6th month. Smaller proportions were in the 9th month (8.5%), 5th month (6.5%), and 4th month (1.5%).

Number of Pregnancies: A significant proportion (79.5%) of respondents had experienced more than three pregnancies, while 12.5% had their second pregnancies, and 7% and 1% had their third and first pregnancies, respectively.

Feelings about Body Shape: When asked about their feelings about their body shape during pregnancy, the majority (73%) reported neutral feelings, followed by mixed feelings (14.5%). A smaller percentage felt sad (8%) or happy (4.5%) about their body image.

The above descriptive statistics provide insights into the characteristics of the surveyed population, enabling a better understanding of the study's findings.

Reliability Test

Reliability, in statistical terms, refers to the internal consistency of variables. In this study, the reliability of the constructs was assessed using the Cronbach's Alpha test. The results indicated good reliability, with Cronbach's Alpha values ranging from 0.809 to 0.884.

Specifically, the Cronbach's Alpha value for the overall reliability of body image evaluation was 0.809, suggesting that the variable is reliable. Similarly, the Cronbach's Alpha value for the overall reliability of the need for maternity support garments and related clothing was 0.884, indicating good reliability. Furthermore, the Cronbach's Alpha value for the overall reliability of the analysis of maternal garments among pregnant women was 0.855, signifying a reliable variable.

These findings affirm the internal consistency of the constructs and support the reliability of the measurement instruments used in the study.

Results and Discussion

The findings of this study have successfully addressed the objectives and provided valuable insights into the maternity wear needs of rural women in India. The study emphasized the importance of maternity wear among rural women and conducted a detailed analysis of maternity wear preferences and requirements.

The questionnaires and variables used in the study showed significant associations and demonstrated reliability. The analysis revealed that the majority of respondents fell within the 26-30 age group and belonged to an Asian American or Asian background. Moreover, most respondents were educated, holding bachelor's degrees, and had a family income of 700,001 and above. These findings indicate that respondents are well aware of the importance of maternity wear and have the means to afford comfortable and suitable garments. However, the purchasing decisions for maternity wear remain relatively low among rural pregnant women.

In terms of anthropometric parameters, the majority of women were classified as obese, with a BMI above 30, suggesting that they become aesthetically conscious about their body image during pregnancy. The disproportionate growth of body parts during pregnancy further contributes to their self-consciousness, highlighting the need for proper maternity wear that can provide confidence and comfort.

Additionally, a significant proportion of respondents had experienced more than three pregnancies, with a high percentage being in the 8-month stage of pregnancy. The evaluation of body image revealed that the majority of women felt neutral about their body image during pregnancy. This indicates that they are not embarrassed by their changing bodies and instead embrace their baby bumps, seeking comfortable and fashionable maternity garments to enhance their experience of motherhood.

Overall, the study's findings underscore the importance of addressing the unique maternity wear needs of rural pregnant women, considering their preferences, body changes, and aspirations for comfortable and fashionable clothing during pregnancy.

Limitations and Contributions

The present study acknowledges certain limitations that should be taken into account when interpreting the findings. Firstly, the research was conducted using a relatively small sample of 200 questionnaires in a specific rural area of India, which limits the generalizability of the results. It is important to recognize that perceptions and preferences of rural pregnant women regarding maternity wear may vary over time due to changing trends and availability in local shops. Therefore, the applicability of the study's findings may be limited to the current context.

Furthermore, future research should aim to address these limitations by conducting larger-scale studies involving diverse rural populations in India. This will enhance the generalizability of the findings and provide a more comprehensive understanding of the maternity wear needs and preferences of rural women.

Despite these limitations, the study has made valuable contributions. It has shed light on the importance of proper maternity garments and the need for comfortable and soft clothing for pregnant women. The research has emphasized the significant role that maternity wear plays in the fashion industry and the increasing demand for suitable garments among pregnant women in India. Moreover, the study has highlighted the existing gap in maternity care services, including the accessibility of maternity wear, between rural and urban areas in India. Overall, this study has contributed to the understanding of the significance of maternity clothing, particularly in the rural context. It has implications for the textile sector in India, as it can assist in designing appropriate maternity wear that aligns with the preferences and needs of pregnant women. Additionally, the findings underscore the importance of raising awareness and overcoming barriers that hinder the accessibility of proper maternity garments for pregnant women in rural areas.

Conclusion and Recommendations

In conclusion, the study highlights the significance of comfortable and soft maternity wear for pregnant women, particularly in rural areas. The findings reveal that women in rural communities face challenges in accessing proper maternity garments that cater to their needs and support their changing bodies during pregnancy. Understanding the anthropometric parameters and feelings about body image among pregnant women in rural areas has provided valuable insights into their preferences and requirements.

Based on the study findings, it is recommended that maternity garments should be designed with the comfort and preferences of pregnant women in rural areas in mind. The use of eco-friendly fabrics, such as cotton, and considerations of colors and styles should be taken into account during the design process. It is important to prioritize longer front and center lengths in the garments to accommodate growing abdominal changes. Furthermore, efforts should be made to address the limited availability of quality maternity wear in rural areas, as identified in the literature review.

The study also highlights the need for improved accessibility to maternity care services in rural areas. Bridging the gap between urban and rural areas in terms of maternity care services is crucial, and government interventions should focus on providing adequate support and services to pregnant women in rural communities.

Additionally, considering the affordability factor, it is recommended to keep the prices of maternity garments low to ensure accessibility for rural women. This will help eliminate potential barriers that may hinder their access to appropriate maternity wear.

In conclusion, the study emphasizes the importance of functional maternity clothing that accommodates the growing abdominal changes and body parts of pregnant women while also offering aesthetic appeal. By addressing these recommendations, the best maternity wear solutions can be provided to pregnant women in rural and peri-urban areas, ultimately enhancing their overall maternity experience and well-being.

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