

Maternity Wear Solution for Rural and Peri-Urban Area Women

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Abstract:

Maternity wear is specially designed for pregnant women and is quite important as it should provide proper room for the anthropometric changes that occur during the nine months of pregnancy. The maternity wear should enhance the beauty of a woman experiencing motherhood. The present study has attempted to understand the maternity wear choices of the rural and peri-urban women in India. Around 200 women were considered for the study and descriptive, quantitative research methodology was employed. ANOVA and regression coefficient analysis were conducted and the results showed that majority of respondents felt positive about their body image and want maternity wear that are comfortable, soft, eco-friendly fabrics and fashionable as well and require future studies with larger samples for the generalizability of the study results.

Keywords: *anthropometric changes, body image, eco-friendly fabric, fashionable, maternity wear, peri-urban, rural,*

1. Introduction

In the recent decades, the rural and peri-urban regions have changed in the light of globalization and digital revolution. Similarly, a woman's social status has also improved due to economic growth and education. Simultaneously, the fashion and lifestyle of women have also changed dramatically. In this regard, clothing needs of pregnant women have also transformed in the modern times. Pregnancy can be considered as a fascinating phase where during the nine months period, a body of a pregnant woman undergoes many significant changes in terms of weight gain, fat deposition and increased abdominal girth [1]. They may feel unattractive, a bit uncomfortable and become self-conscious of their body image. The body undergoes physical transformation and demands maternity wear that is comfortable and soft to accommodate all the changes occurring the body during the whole pregnancy period [2]. In this situation, the requirement of the best garment that is comfortable, soft and fits best to cover and protect the abdominal changes of a pregnant woman. Earlier, in India, draped and alternate garments were used and they did not opt for any maternity wear. However, with time, the demand and consumption of maternity wear has increased in rural and peri-urban areas. This has led to a myriad of maternity apparel options and requires the best solution for the maternity wear for the women residing in rural and peri-urban areas.

Pregnant women are facing issues in choosing garments that accommodate their waist and abdomen changes and have proper space for hip and legs that are corresponding to the bodily changes during maternity [3]. There is a need to design proper maternity garments that address the anthropometric requirements taking place in the body of a pregnant woman. Moreover, the distribution of the substantive weight gain is not uniform and certain parts of the body grow more as compared to other parts in proportion with prominent growth in hands, thighs and biceps. There is a need to address the problem of choosing appropriate maternity wear for pregnant women. Although, the women in India have to buy plus-size garments, however, their oversized garments do not address the needs of the pregnant women as it looks shabby and poorly fitted in both vertical and horizontal dimensions [4]. Moreover, the maternity wear may look expensive as their serviceable lives are short-termed because they are no more in use after delivery and cannot be used further due to its over-sized flare required to cover the "baby bump". Considering all these issues, the present study is intended to look for best maternity solutions for the pregnant women required during the second and third trimester of pregnancy in rural and peri-urban regions.

Motherhood is an important period that a woman goes through in her life. However, life-threatening and serious complications can occur at any time demanding urgent care. The prenatal care services are important for addressing the pregnancy complications and also for the safe delivery of the baby. However, there remains a huge gap between urban and rural maternity health delivery systems. Pregnant women in rural areas and peri-urban areas have less accessibility to maternity healthcare centres because they reside far from urban and suburban areas [5]. In India, pregnant women in rural areas also face issues regarding maternity wear as they avail the garments available in the local markets. The constructional detail of these garments is not proper and the material used to make these maternity garments are not much comfortable and absorbent in nature. Therefore, the present study would look into the best maternity wear of their choice for the pregnant female population in rural and peri-urban areas. In addition, this study will also try to investigate the body changes that a woman undergoes during pregnancy in relation to garments and suggest the most suitable and comfortable maternity garments for the pregnant women in rural and peri-urban areas.

2. Aims and Objectives

The aim of the study is to implicate the approaches concerning maternity wear and choice of garments for the pregnant women in rural and peri-urban areas in India through descriptive research study. The specific objectives of this study are:

- To assess, investigate and establish various body changes during pregnancy in relation to garments.
- To study the most common choice of garments during maternity period.
- To design the most suitable maternity wear.
- To suggest the most comfortable style.

3. Literature review

3.1 Overview of maternal care in rural India

In India, maternal deaths are taking place due to direct causes like infections, excessive bleeding, obstructed labour, pregnancy-induced hypertension and other complications [6]. These maternal deaths can be otherwise prevented, however, there is lack of proper accessibility to maternal health services during pregnancy and after childbirth. Moreover, there are inadequate services for the identification and management of complications. This scenario is worse in the rural parts of India where fewer than half of the women received any care during the pregnancy. The picture is gloomier in rural areas where pregnant women have no access to antenatal care. The lack of knowledge about maternal care during pregnancy, long distances to the maternal and child health centres are some of the additional factors that hinder pregnant women in rural areas to seek antenatal care [7]. Most of the deliveries happen at home by daimaas without the help of any skilled health professional that results in complications, unhygienic conditions during delivery and infection that leads to maternal deaths in rural India communities. This shows that a huge gap exists in context to maternal care between urban and rural areas of India.

3.2 Importance of maternity wear

Maternity wear is a garment that is worn during pregnancy to meet the bodily changes that the pregnant woman is going through and make space to accommodate the anthropometric growth. Gradually, the Indian textile company is understanding the importance of maternity wear. During pregnancy, proper clothes are important that are comfortable and easy to wear. The fabric, texture and material used in maternity garments is important as it should be light, comfortable and breathable for the pregnant woman. The design and appearance of the maternity garment is important and should allow proper support and allow movement of the abdominal area [8]. The maternity dress should not put pressure on the abdominal area during pregnancy. These are important aspects that need to be addressed while designing a maternity garment for pregnant women. However, it has been observed that women in Indian rural communities are not fully aware of the importance of maternity wear which will be highlighted in the next section.

3.3 Issues faced by pregnant women in rural India in relation to maternity garments

As the time has changed, pregnant women are no longer shy in flaunting their “baby bump” and designing maternity wear today stands as a norm and various types of maternity clothing are available in the Indian market. However, the scenario is different in context to rural communities in India. The women residing in rural

communities do not have many options in choosing maternity garments of their choices. Furthermore, the majority of rural pregnant women are still unaware of the importance of maternity wear as they become aesthetically conscious about their body during pregnancy and think that maternity wear cannot glorify them [9]. There is a major difference in how women in rural communities pursue their pregnancies and the type of apparel they wear as compared to urban pregnant women. They have less accessibility to the maternity wear and use the garments available in their nearby areas. Those garments are not fit to use and the material is quite uncomfortable. In a study conducted by Sidhu and Sharma [10] it was found that pregnant women in rural areas of Punjab preferred cotton material garments and are quite dissatisfied with the maternity wear available in their local shops. Therefore, the present study has been undertaken to address the needs and provide a solution to the maternity wear of pregnant women in rural areas.

The above literature review on maternity wear helped to fill the knowledge gap that existed in terms of maternity care in India. The rural communities have less access to the prenatal and antenatal care services and this results in severe complications during pregnancy leading to maternal deaths. The delivery is done by unskilled village women and prone new mothers to infections, excessive blood loss and other complications. Moreover, there is less awareness about the importance of maternity wear and unable to address the requirements of the body during pregnancy. However, there still remains a knowledge gap about the maternity wear use in the rural communities in India. Few studies have been conducted in Indian scenario in relation to maternity clothing to address the needs of the anthropometric growth of pregnant women in rural communities.

4. Methodology

The present study will use descriptive and quantitative research methodology for fulfilling the objectives and helps to obtain information from the sample respondents relating to the question being studied. The information will be collected via primary and secondary data collection methods. The factual knowledge will be gained through secondary data obtained from journals, books and articles on maternity care and wear in rural India scenarios. Questionnaire based surveys will be used as primary data which included pregnant women and other women who have already experienced pregnancy in the rural regions of India. The sample population consisted of 200 women who included 19 Non-Hispanic White, 15 Black or African American, 37 Hispanic or Latino, 64 Asian or Asian American, 52 Hawaiian or other Pacific Islander, 13 American Indian or Alaska Native. The anthropometric parameters like BMI during pregnancy, and other pregnancy related parameters like stage and number of times a woman became pregnant and feelings about body shape were also analysed in the study. Statistical and numerical approach will be used for analysing collected data. The ethical considerations were maintained throughout the research study and informed consent was obtained from the respondents and confidentiality and anonymity was maintained with minimum risk of harm while conducting the research.

5. Analysis of Data

The data was analysed using descriptive statistical as well as inferential statistical methods. Besides, ANOVA, Pearson correlation coefficient and Multiple Regression were utilized for the present study. SPSS software was also used for the data collected through questionnaires. The reliability test has also been done as per the developed questionnaire for the present study. This has helped in analysing the understanding level of rural women particularly in maternity wear in terms of importance, choice and accessibility.

5.1 Descriptive Statistics

The respondents considered for the study were the target audiences who were surveyed through questionnaires residing in rural parts of India. Among them, 45.5% of women belonged to the age group of 26-30 years followed by 25.5% under 31-35 years of age. 17.5% and 11.5% of women belonged to 20-25 years and 36-41 years of age respectively. In accordance with ethnic backgrounds of the participants, 32% belonged to Asian or Asian American background, Hawaiian or other Pacific Islander were 26%, Hispanic or Latino women were 18.5% and only 9.5%, 7.5% and 6.5% of women belonged to Non-Hispanic White, Black or African American and American Indian or Alaska Native respectively. Looking into the highest level of education, 39.5% of women had bachelor degrees followed by 36.5% having master's degrees, 16% of women had passed intermediate. Only 4.5% of women had high school or less degrees and 3.5% were uneducated. The family income per year variable showed that about 33% of women's family income was 700001 and above followed by 32% having 500001 to 700000 per annum and 21% having 300001-500000 income per year. Only 7.5% and 6.5% of women had family income 100001-300000 and 100000 and less respectively per year. The analysis on pre-pregnancy BMI showed that 39% of women were obese having BMI above 30 followed by 25.5% of women being overweight (BMI 25-

30). Only 19.5% of women had normal weight (BMI 20-24) and finally 16% of women were found to be underweight (BMI under 20). Looking into the stage of pregnancy, 34.5% of women were in 8 months followed by 33.0% in 7 month and 16% in 6 months. Only 8.5%, 6.5% and 1.5% were in 9-month, 5 month and 4 months respectively. In accordance with the number of times the respondents became pregnant, 79.5% had more than three pregnancies followed by 12.5% had their second pregnancies and 7% and 1% had their third and first pregnancies. When the respondents were asked about how they felt about their body shape during pregnancy, 73% of them reported to have neutral feelings followed by 14.5% having mixed feelings. Only 8% of them felt sad about their body image and 4.5% were actually happy.

Table 1: Descriptive Statistics

	Age in Years	Frequency	Percent
Age	20-25 years	35	17.5%
	26-30 years	91	45.5%
	31-36 years	51	25.5%
	36-41 years	23	11.5%
Ethnicity	Non-Hispanic White	19	9.5%
	Black or African American	15	7.5%
	Hispanic or Latino	37	18.5 %
	Asian or Asian American	64	32.0 %
	Hawaiian or other Pacific Islander	52	26.0 %
	American Indian or Alaska Native	13	6.5%
Highest Level of Education	Uneducated	7	3.5%
	High school or less	9	4.50%
	Intermediate	32	16.0 %
	Bachelor degree	79	39.5 %
	Master’s degree or above	73	36.5 %
Income per year	10,000 and less	13	6.5 %
	100001-30,0000	15	7.5 %
	300001-500000	42	21.0 %

	500001-700,000	64	32.0 %
	700001 and above	66	33.0%
What is your Prepregnancy BMI (height and weight)	Underweight (under 20)	32	16.0%
	Normal weight (20-24)	39	19.5%
	Overweight(25-30)	51	25.5%
	Obese (above 30)	78	39.0%
What is your Stage of pregnancy?	4 months	3	1.5%
	5 months	13	6.5%
	6 months	32	16.0%
	7 months	66	33.0%
	8 months	69	34.5%
	9 months	17	8.5%
Number of times pregnant	first	2	1.0%
	second	25	12.5%
	third	14	7.0%
	More than three	159	79.5%
What are your feelings about body shape changes during pregnancy	happy	9	4.5%
	sad	16	8.0%
	mixed	29	14.5%
	neutral	146	73.0%

5.2 Reliability test

In statistical terms, reliability refers to the internal consistency of the variables. In the present study, Cronbach Alpha test was used to check the reliability of the constructs that ranged from .809 to .855 which seemed to be good.

Table 2: Reliability test result

Variables	CronbachAlpha (α)
Body Image Evaluation	.809
Needs for maternity support garments and related clothing	.884
Analysing the maternal garments among pregnant women	.855

The Cronbach alpha value for the overall reliability concerning body image evaluation was 0.809 indicating that the variable is reliable. The Cronbach alpha value for the overall reliability concerning need for maternity support garments and related clothing was 0.884 indicating that the variable is reliable. The Cronbach alpha value for the overall reliability concerning analysis of maternal garments among pregnant women was 0.855 indicating that the variable is reliable.

6. Results and Discussion

The above findings have aided in fulfilling the study objectives. A consumer-oriented approach has been presented in this study by analysing the maternity wear needs for rural women in India. The basic aspects of importance of maternity wear among rural women have been highlighted in the study. The in-depth analysis of maternity wear among the pregnant women in rural areas has been studied in this research in detail. The questionnaires and the variables used in the study showed significant association and were considered reliable. The analysis inferred that major respondents belonged to the age group of 26-30 years and mostly belonged to Asian American or Asian background. Majority of respondents were educated having bachelor's degrees with family income of 700001 and above. This shows that the respondents are well aware of the importance of maternity wear and want garments that fit them properly. They can also afford the maternity wear that is quite comfortable and suitable as per their choices, however, their purchasing decisions are still low among rural pregnant women. Looking into the anthropometric parameters, majority of women were obese with BMI above 30 which indicates that they become aesthetically conscious about their body image. Moreover, the unproportionate growth in body parts make them conscious about their bodies and they require proper maternity wear that make them feel confident. In addition, the majority of respondents had more than three pregnancies with a high percentage in 8-month stage pregnancy. The result of body image evaluation which is a major variable revealed that the majority of women had neutral feelings about their body image during pregnancy and this indicates that they are not embarrassed about their body image during pregnancy and want to flaunt their baby bump and enjoy motherhood by wearing comfortable and fashionable maternity garments.

7. Limitations and Contributions

There are also limitations observed in the study as the research findings are based on only 200 questionnaires conducted in a rural area of India that cannot be generalized. The perception and preference of rural pregnant women regarding maternity wear may change day by day as per the rising trends and availability in the shops. Therefore, the results of the study may be applicable now. The study has future implications as it requires more studies with large samples to be conducted in this regard for rural women in India for the generalizability of the studies. Awareness and knowledge about the importance of proper maternity garments and overcoming the factors that hinder their accessibility can help pregnant women in rural areas to get the best maternity wear solution.

The present study has helped in understanding the significance of maternity clothes for pregnant women and need for comfortable and soft garments for them. The maternity wear is undergoing many changes and this study has revealed that proper garments are much required for pregnant women. They are taking a lead on maternity wear fashion in the public eye. Most importantly, this study can aid the India's textile sector in understanding and designing the suitable maternity wear that are in great demand among the pregnant women in India. Moreover, as the study has been conducted in a rural setting, it has helped in highlighting the huge gap in maternity care services including maternity wear accessibility among rural and urban pregnant women in India.

8. Conclusion and Recommendations

Pregnancy is a beautiful phase in the life of a woman and as body transformations take place, they need comfortable and soft clothing. The garment that makes space for the growing abdominal area is the best for a

pregnant woman supporting the growing body parts. From the study conducted, we observed that women in rural areas are not having accessibility to proper maternity wear that provides proper care to the mother as well as the growing baby. The anthropometric parameters and feelings about their body image were studied. It has been observed that decent appearance, comfort and unique features of garments that glorify them had a higher acceptance among the pregnant women in rural areas. As the body grows around the abdomen area, such garments that provide support in that particular area are preferred choice of maternity garments. Based on the study findings, the design of the garment which is comfortable and fashionable at the same time was appreciated by the pregnant women in rural areas. Those would be considered the most suitable maternity wear for the pregnant women in rural and peri-urban areas of India.

From the study findings, it can be recommended that the garments should be designed as per the comfort and preferences of the pregnant women in rural areas. Moreover, the eco-friendly fabrics like cotton and other aspects of maternity clothing like colours and styles should be kept in mind while designing the garments. The garments should be ideally longer in the front and centre rather than balanced at both front and back with a standard plus size. The availability of quality maternity wear in rural areas is quite low as revealed by the literature review. There remains a huge gap in the accessibility of maternity care services as compared to rural areas and the government should work towards bridging this gap and providing maternity care services to the pregnant women in the rural areas. The need for functional clothing that compensates their growing abdominal changes and body parts and also looks well at the same time are the best maternity wear solution for the pregnant women in rural and peri-urban areas. Moreover, the high price of the maternity garments may create a negative impact among rural women and therefore, the price should be kept low.

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