

A Comparative Study of Nutritional Assessment and Level of Anxiety among Working and Non-Working Women during Pregnancy

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Abstract: *The duration of carrying a developing foetus inside the body is called 'pregnancy' and the women carrying her child inside the body is called pregnant women. There are some factors that affects physical and mental health of women during pregnancy, they are: Socioeconomic status, nutritional assessment and anxiety level. Nutrients are essential for daily functioning and growth of body, during pregnancy its demand gradually increases. Anxiety is intense, excessive and persistent worry and fear about everyday situations. The present study was undertaken to assess the differences between nutritional assessment and anxiety level (based on the causes) among working and non-working women during pregnancy. 70 respondents were selected through purposive sampling method in which 35 were working pregnant women and 35 were non-working pregnant women from the areas of Kurji and Bailey road. The finding shows that working pregnant women had high socio-economical status than non-working pregnant women, the working women took good care of their nutrition and had more knowledge about it as compared to housewives. Also, in the study it was found that both working and non-working pregnant women experienced anxiety but in case of working pregnant women most of them were found on high level of anxiety.*

Keywords: Pregnancy, Working Pregnant women, Non-working pregnant women, socioeconomic status, Nutritional status and Anxiety

1. Introduction

The term "women" is the usual term for a female adolescent. Women experiences a phase at least once in her life called "motherhood", which is determined by creating a human being inside a female's body. The duration of carrying a developing foetus inside the body is called "pregnancy" and the woman carrying the child inside her body is pregnant women. The pregnancy period is determined by feeling blessed and during this period there are many factors which influences her physical as well as psychological health. With the feeling of happiness some worries are also present during pregnancy like physical as well as mental health of both mother and child, social and economical support, medical facility, quantity and quality of nutrition and worries of future.

Now-a-days are juggling between their household responsibilities and job expectations. According to The World Bank Data (2018), 22.1% women are serving in different sectors of the society. In pregnancy these burden become more difficult to handle. During this period women became anxious thinking about social support she is receiving, economic status of the family, type of food to consume and avoid, proper growth and development of baby and also about being parent. When work conditions, demographic and family characteristics are taken into account, housewives show more depressive symptoms than working women (Lennon 1994). So, working women are in better physical and psychological health than housewives (Hall 1992; Baruch and Barnett 1986).

Some major factors that affects pregnancy are discussed as follows:

1.1 Socioeconomic Status

According to **National Center for Educational Statistics (2008)** Socioeconomic status (SES) is an economic and sociological combined total measures of a person's work experiences and of an individual's or family's economic and social position in relation to others. for analyzing a family's SES, the

- Household Income
- Earners' Education
- Earners' Occupation
- Combined Income are examined, whereas for an individual's SES only their own attributes are assessed.
- SES is used to show the economic differences in the society. It is divided into three levels:
 - High Income Group
 - Middle Income Group
 - Low Income Group

Socioeconomic Status of Working Pregnant Women

As in case of working pregnant women both the partners earn money which improves their status in the society. Also, working women are more independent and are well educated so they can take proper care of themselves as well as of their child

Socioeconomic Status of non-Wornig Pregnant Women

It is not necessary that if the woman is not working she will have low economical status in the society, it can be like their spouse's income is enough to fall in either middle or high income group. But here the women has relay on her partner for economical support and which may cause hesitations while asking for money. As a family they may belong to

middle or high income group but as an individual she can only be assessed on the basis of her education. It is also seen that most of the unemployed women have low level of education and very few of them are highly educated but are unemployed. Generally, this condition occurs due to lack of social support from the family or society or the mentality.

1.2 Nutritional Assessment

Nutrients are those constituents that are found in foods which must be supplied to the body in suitable amounts. These include carbohydrates, fats, proteins, minerals, vitamins and water. These chemical substances obtained from food are used in the body to provide energy, structural material and regulating agents to support growth, maintenance and repair of body's tissues. These nutrients may also reduce the risk of some degenerative diseases.

The dietary allowances of nutrients are recommended on the basis of current knowledge of nutritional requirements of different age, sex groups, different stages of life and the country's food and dietary habits. It is calculated as Recommended Dietary Allowances (RDA).

During pregnancy Nutritional requirements increase tremendously as the expectant mother not only has to nourish herself but also the growing foetus.

According to **British Dietetics Association (2012)**, Nutritional assessment is the systematic process of collecting and interpreting in order to make decisions about the nature and causes of nutrition related health issues that affect an individual. Also, "Nutritional assessment can be defined as the interpretation from dietary, laboratory, anthropometric, and clinical studies. It is used to determine the nutritional status of individual or population groups as influenced by the intake and utilization of nutrients" **Gibson (2005)**. A variety of methods have been developed for the use in the assessment of the nutritional status:

- Anthropometry
- Biochemical/biophysical methods
- Clinical methods
- Dietary methods.

Dietary method includes observing the past and current intakes of nutrients from food by individuals or a group to determine their nutritional status. The person is asked to tell what one has eaten over the past 24 hours and the data is used to calculate the dietary diversity score. Dietary diversity is measure of number of food group consumed over a reference period, usually 24 hours.

Nutritional Assessment of Working Pregnant Women

Most of them consult to clinical or certified dieticians for their diet plan. They are more aware of malnutrition and its ill-effect on child.

Nutritional Assessment of Non-Working Pregnant Women

Most of non-working pregnant women are not aware of balanced diet and the dietary requirements during the pregnancy. Sometimes they just follow the regular meal plan

by increasing the quantity. Some of them are well known to the nutrients and follow a balanced diet.

1.3 Anxiety

Anxiety is an emotion characterised by feelings of uneasiness, worried thoughts and physical changes like increased blood pressure. People with anxiety disorders usually have recurring intrusive thoughts or concerns. They may avoid certain situations out of worry (American Psychological Association). Anxiety is not the same as fear, which is a response to a real or perceived immediate threat it also involves the expectation of future threat. To measure the level anxiety different tests can be used.

Level of Anxiety in Working Pregnant Women

Working women may experience work related stress i.e. occupational stress along with house hold stress which may lead to elevation of their stress level.

Level of Anxiety in Non-Working Pregnant Women

Along with financial distress the non-working pregnant women may experiences lack of satisfaction, boredom, self pity and feelings of worthlessness.

Problem of the study

Now-a-days there are many factors which affects the physiological and psychological health of women during pregnancy. Working pregnant women serves in different sectors of society as well as take household responsibilities with dedication which can lead to hectic life schedule and they may become ignorant to health. Whereas Non working pregnant women is only busy with household chores which can make her anxious and may they lack for exposure to facilities and knowledge regarding their health.

Purpose of the study

In today's changing world there is a need to study how nutritional assessment and level of anxiety differ in working and non working women during pregnancy.

Objectives of the study

- 1) To assess and compare the nutritional status of working and non working women during pregnancy.
- 2) To assess and compare the level of anxiety in working and non working women during pregnancy.

Hypothesis

- 1) The nutritional status of working pregnant women will be better than nutritional status of non working pregnant women.
- 2) The level of anxiety in working pregnant women will be high than level of anxiety in non working pregnant women.

2. Methodology

The present study entitled "A comparative study of socioeconomic status, nutritional assessment and anxiety among working and non-working women during pregnancy".

Research design:

Purposive research design was adopted for the research study.

Selection of the research method:

The case study (Interview and observation) method was adopted for the present study.

Sampling method:

Based on the objectives of the study the sampling method was adopted. Seventy respondents were purposively selected.

Area of study:

Working and non-working pregnant women aged between age group 18-45 years old from the following areas of Patna were taken as sample for the study:

- Kurji
- Bailey Road

Selection of the subjects:

A total of working and non-working pregnant women were selected purposively for the study. Out of the total, 35

working and 35 non-working pregnant women were selected as sub-samples.

Procedure of data collection:

The authority of the hospital was approached and the purpose of visit was explained. When permission was granted, the pregnant women were approached under the supervision of staff member and again the purpose was explained. This way rapport was established with the patients. The prepared questions were asked to them one by one. After the study was done they were thanked. This procedure took 10 days.

Data analysis technique:-

Tabulation and frequency distribution method were used for data analysis.

Statistical analysis:-

Percentage was drawn from the respondent's orientation.

3. Results and Discussion

The results of this present research are in accordance with the objectives, derived through the use of required methodology, the data collected and tabulated under the present study and standard tools have been presented with appropriate illustration.

Table 1: General information of the respondents

| Variable | Category | | | |
|-------------------------|------------------------------|------------|----------------------------------|------------|
| | Working pregnant Women, N=35 | | Non-working pregnant women, N=35 | |
| Religion | N | Percentage | N | Percentage |
| Hindu | 32 | 91.42 | 33 | 94.28 |
| Muslim | 2 | 5.71 | 1 | 2.85 |
| Christian | 1 | 2.85 | 0 | 0 |
| Other | 0 | 0 | 1 | 2.85 |
| Family Type | | | | |
| Nuclear Family | 13 | 37.14 | 8 | 22.85 |
| Joint Family | 22 | 62.85 | 27 | 77.14 |
| Residential Type | | | | |
| House | 22 | 62.85 | 24 | 68.57 |
| Apartment | 13 | 37.14 | 11 | 31.43 |

Source: Field Survey.

Table 1 discusses about general information of the respondents like their religion, family type and their residential type.

According to the table among working pregnant women 91.42% were Hindu, 5.71% were Muslims and 2.85% was Christian and among non-working pregnant women 94.28% were Hindus, 2.85% was Muslim and 2.85% was Punjabi. So, from above table it is clear that the majority of respondents from both the groups were Hindus.

Also, the table shows that among working pregnant women 37.14% lives in Nuclear family and 62.85% of them lives in a joint family while among non-working pregnant women only 22.85% lives in nuclear family and rest 77.14% of them lives in a joint family.

Other finding in the table is about the type of residence and according to the table among working pregnant women 62.85% of them were residing in house and 37.14% of them were residing in apartments while among non-working pregnant women 68.57% of them were residing in house and remaining 31.43% were residing in apartments.

Table 2: Socio-economic status of working and non-working pregnant women

| Variable | Category | | | | | | | |
|---------------------------|--------------------------------|-------|---------|-------|------------------------------------|-------|---------|-------|
| | Working pregnant women N=35 | | | | Non-working pregnant women N=35 | | | |
| | Pregnant women | | Husband | | Pregnant women | | Husband | |
| | N | % | N | % | N | % | N | % |
| Age | | | | | | | | |
| 18-26 | 9 | 25.71 | 0 | 0 | 20 | 57.14 | 6 | 17.12 |
| 27-35 | 23 | 65.71 | 22 | 62.85 | 15 | 42.86 | 27 | 77.14 |
| 36-45 | 3 | 8.57 | 13 | 37.14 | 0 | 0 | 2 | 5.17 |
| Level of education | | | | | | | | |
| Higher secondary | 2 | 5.71 | 0 | 0 | 0 | 0 | 1 | 2.85 |
| Intermediate & above | 33 | 94.28 | 100 | 100 | 35 | 100 | 34 | 97.14 |
| Monthly income | | | | | | | | |
| Below 10,000 | 4 | 11.42 | 0 | 0 | - | - | 2 | 5.71 |
| 10,000-25,000 | 17 | 48.57 | 6 | 17.14 | - | - | 11 | 31.43 |
| 25,000-50,000 | 14 | 40 | 23 | 65.71 | - | - | 6 | 17.12 |
| Above | 0 | 0 | 4 | 17.14 | - | - | 16 | 45.71 |
| Employment type | | | | | | | | |
| Agriculture | 0 | 0 | 0 | 0 | - | - | 0 | 0 |
| Business | 7 | 20 | 4 | 11.42 | - | - | 8 | 22.85 |
| Job (private/govt.) | 28 | 80 | 28 | 80 | - | - | 26 | 74.28 |
| Other | 0 | 0 | 3 | 8.57 | - | - | 1 | 2.85 |

Source: Field Survey.

The figures of table 2 discusses about the socio-economic status of working and non-working pregnant women like age of the pregnant women, her husband, level of education of pregnant women, her husband, monthly income and type of employment of the women and her husband.

According to table among working pregnant women 25.71% of them were in age group of 18-26 years, 65.71% of them belonged to age group of 27-35 years and 8.57% of them were in age group of 36-45 years. In case of their husband 62.85% of them were in age group of 27-35 years and rest 37.14 of them belonged to age group of 36-45 years. While in case of non-working pregnant women majority of women belonged to age group of 18-26 years it is 57.14% out of total and rest 42.86% were from age group 27-35 years. In case of their husband 17.12% were in age group of 18-26 years, 77.14% were in age group of 27-35 years and rest 5.17% of them belonged to age group of 36-45 years.

According to the table among working pregnant women only 5.71% has higher secondary level of education and rest 94.28% had Intermediate and above level of education also, among husbands 100% of them had Intermediate and above level of education while among non- working pregnant women 100% of the had intermediate and above level of education, only 2.85% among husbands had higher secondary level of education and rest 97.14% had intermediate and above level of education.

Also, among working pregnant women only 11.42% had monthly income below 10,000; 48.57% of them had income between 10,000-25,000 and rest 40% of them had income between 25,000-50,000. In case of their husband 17.14% of them had monthly income between 10,000-25,000; 65.71% had income between 25,000-50,000 and 17.14% had income more than 50,000. Whereas, among non-working pregnant women's husband only 5.71% had income below 10,000; 31.43% had income between 10,000-25,000; 17.12% had income between 25,000-50,000 and rest 45.71% had income above 50,000.

According to the table 20% of working pregnant women had their own business like tailoring, shop-keeping and beauty parlour and 80% of them were involved in jobs in which 20% were in govt. jobs and 60% were in private sectors. In case of their husband 11.43% had their own business, 80% of them were involved in jobs in which 42.86% were in govt. jobs and 37.14% were in private sectors and rest 8.57% were doing other works like drivers or mechanics. While among husbands of non-working pregnant women 22.85% of them had their own business, 74.28% of them were indulged in jobs in which 17.12% were in govt. jobs and 57.14% were in private job also, only 2.85% was in category of other.

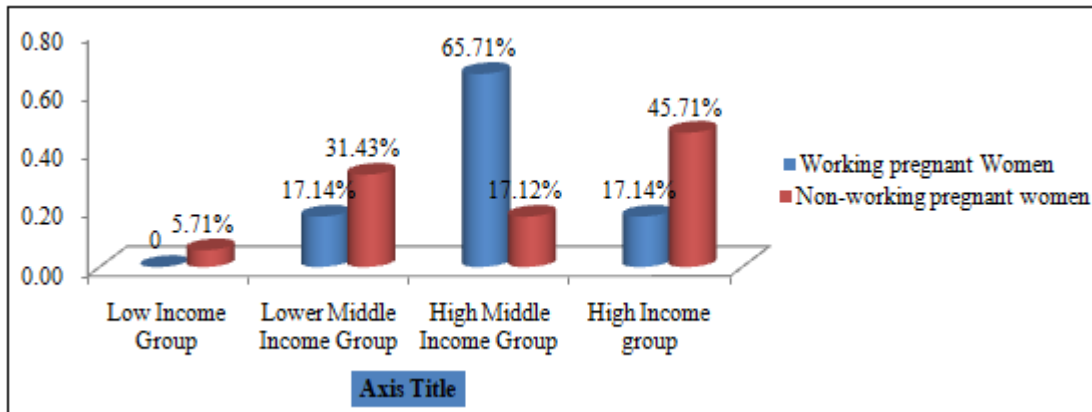


Figure 1: Economic status of working and non-working pregnant women
Source: Field Survey

The above figure shows that working pregnant women 17.14% of them belongs to lower middle income group, 65.71% of them belong to higher middle income group and 17.14% of them belongs to high income group. Whereas,

among non-working pregnant women only 5.71% belongs to low income group, 31.43% belongs to lower middle income group, 17.12% belongs to higher middle income group and rest 45.71% belongs to high income group.

Table 3: Gestational Characteristics

| Variable | Category | | | |
|---------------------------|------------------------|------------|----------------------------|------------|
| | Working pregnant women | | Non-working pregnant women | |
| Gestation period | N | Percentage | N | Percentage |
| 1 st trimester | 6 | 17.14 | 4 | 11.43 |
| 2 nd trimester | 15 | 42.85 | 11 | 31.43 |
| 3 rd trimester | 14 | 40 | 20 | 57.14 |
| No. of miscarriage | | | | |
| No | 32 | 91.42% | 26 | 74.28% |
| One | 3 | 8.57% | 7 | 20% |
| Two | 0 | 0% | 2 | 5.71% |
| More | 0 | 0% | 0 | 0% |
| No. of Children | | | | |
| No | 22 | 62.85 | 23 | 65.71 |
| One | 8 | 22.85 | 9 | 25.71 |
| Two | 4 | 11.42 | 3 | 8.57 |
| More | 1 | 2.85 | 0 | 0 |

Source: Field Survey

In table 3 gestational characteristics are discussed like trimester they were experiencing, no. of miscarriage they had earlier and no. of children they were having.

of non-working pregnant women 74.28% of them had no miscarriage, 20% of them had one miscarriage and 5.71% of them had two miscarriages.

According to table among working pregnant women 11.43% were in first trimester, 31.43% were in second trimester and remaining 57.14% were experiencing third trimester while among non-working pregnant women 17.14% were in first trimester, 42.85% were in second trimester and rest 40% were experiencing third trimester.

In case of working pregnant women majority of them i.e. 62.85% had no child earlier, 22.85% had one child, 11.42% had two children and only 2.85% had more than two children whereas, in case of non-working pregnant women 65.71% had no child earlier, 25.71% had one child and only 8.57% of them had 2 children.

Among working pregnant women 92.42% had no earlier miscarriage and 8.57% had one miscarriage where as in case

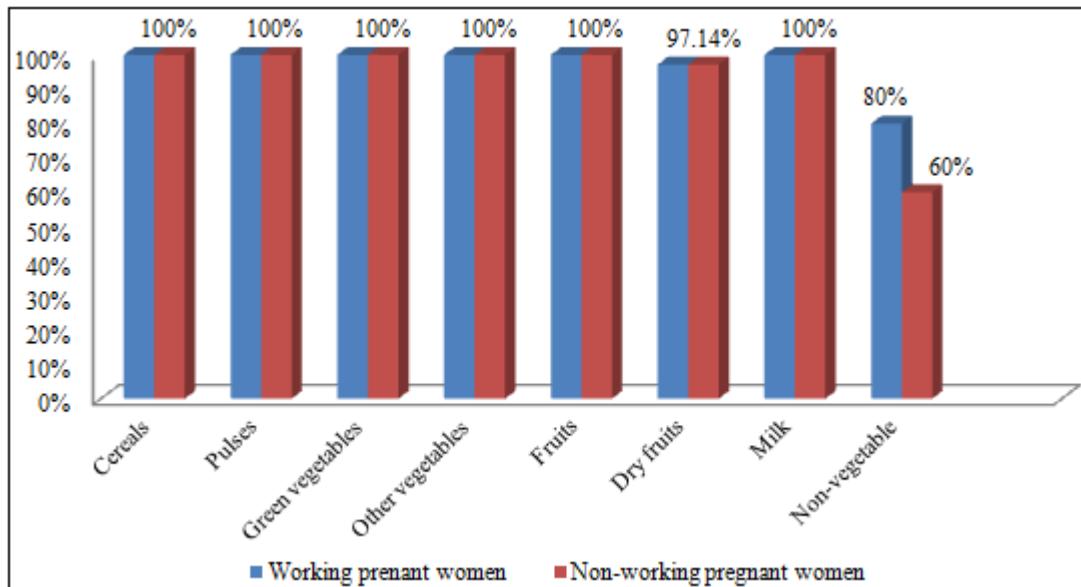


Figure 2.24: hour recall of diet

Source: Field Survey

According to figure 100% of both working and non-working women consumed cereals, pulses, green vegetables, other vegetables, fruits and milk or milk products. 97.14% from both the groups consumed dry fruits. Among working pregnant women 80% of them consumed non-vegetarian diet while 60% of non-working women were eating non-vegetarian diet. This indicates that in both groups most of them consumed food from all six food groups.

Table 4: Recommended Dietary Allowance (RDA)

| Nutrients | Quantity Required / Day |
|----------------|-------------------------|
| Energy | 2250 K Cal |
| Protein | 78gm |
| Fat | 30gm |
| Calcium | 1200mg |
| Iron | 35mg |
| Zinc | 12mg |
| Vitamin B6 | 2.5mg |
| Dietary folate | 500µg |
| Magnesium | 310mg |
| Retinol | 800µg |
| B-Carotene | 6400µg |
| Thiamine | 1.4mg |
| Riboflavin | 1.7mg |
| Niacin | 18mg |
| Vitamin C | 60mg |
| Vitamin B12 | 1.2 |

Source: Summary of RDA for energy, protein, fat, minerals, water soluble and fat soluble vitamins for Indians-2010.

Table 5: Nutritional Assessment (Dietary Method)

| Values of RDA | Working pregnant women | | Non-working pregnant women | |
|--------------------|------------------------|-------|----------------------------|--------|
| | No. | % | No. | % |
| Less than 2200Kcal | 5 | 1.28% | 3 | 8.57% |
| 2200Kcal-2300Kcal | 28 | 80% | 31 | 88.57% |
| More than 2300Kcal | 2 | 5.71% | 1 | 2.87% |

Source: field survey.

The above table informs that 14.28% of working pregnant women consume less than the required amount of nutrients, 80% of them consume diet meeting their RDA and only

5.71% of them had meals which is more than RDA. On other hand in case of non-working pregnant women 8.57% of them had meals which was less than RDA, 88.57% of them consumed correct diet meeting their RDA and only 2.87% of them consumed meal which was more than RDA.

Table 6: Level of Anxiety (Based on causes)

| Variable | Working pregnant women | | Non-working pregnant women | |
|--------------------|------------------------|--------|----------------------------|--------|
| | No. | % | No. | % |
| 0-11 (Low level) | 10 | 28.57% | 27 | 77.14% |
| 12-30 (high level) | 25 | 71.42% | 8 | 22.85% |

Source: field survey.

The table depicts that 28.57% of working pregnant women experienced low level of anxiety and 71.42% of them had high level of anxiety. While in non-working pregnant women's category 77.14% had low level of anxiety and only 22.85% of them experienced high anxiety level.

4. Conclusion

In this study, efforts were made to find out the socioeconomic status, nutritional status and anxiety level among working and non-working pregnant women and also find differences between socioeconomic status, nutritional status and anxiety level among them. It is very clear from the study that both the group have more or less similar socioeconomic status; the major difference was that most of the non-working pregnant women belonged to High Income Group. This was one of the reason they didn't pursued any carrier. Also, most of them were not highly educated and many of them only thought of being housewives. While among non-working pregnant women they worked hard to upgrade their status and help their partner in sharing the financial burden. Many of them were carrier-oriented and were highly educated. Nutritional knowledge plays an important role in giving birth to a healthy baby, in the study it was found that working pregnant women had more knowledge about nutrients and balanced diet, they also preferred qualified dieticians for diet plans an suggestions

but non-working pregnant women believed more in their own choices and seek suggestions from any elderly people of house. But in terms of nutritional assessment it was clearly shown that most of non-working pregnant women took diet meeting RDA. The reason of taking diet of less RDA was health conditions like high level of SGPT, diabetes, hypertension, etc. in which calories and some other nutrients are restricted to some extent. Also skipping meals due to fault in time management is a reason of consuming diet of less RDA. The study conclude that both categories experienced anxiety but no. of working pregnant women on high level anxiety was more as compared to no. of non-working pregnant women.

5. Suggestions

- 1) Working pregnant women must learn the techniques of time management and work simplification.
- 2) Both the groups should put emphasis on maintaining and enhancing their position in society.
- 3) Both the groups should help in managing the economical status of society working pregnant women by earning money and non-working pregnant women by savings.
- 4) Both working and non-working pregnant women should learn about balanced diet and importance of taking meals according to RDA.
- 5) Meals must be prepared on time so that working women should not skip their meals.
- 6) Both working and non-working pregnant women should learn and follow adaptive methods of stress management to reduce their anxiety.
- 7) They must not over-think of any situation.

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