INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH & DEVELOPMENT

ISSN 2278 – 0211 (Online)

Nutritional Status and Morbidity Pattern of Muslim Married Women: A Study of Cachar District in Assam, India

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Abstract:
Diet and nutrition are important factors for maintenance of good health throughout the life cycle. There are many factors viz; income, prices, individual preferences and beliefs, cultural traditions, as well as geographical, environmental, social and economic factors all interact in a complex manner to shape dietary consumption patterns and that affect the morbidity and clinical status of women. The study assesses the nutritional status and morbidity patterns among 214 non-pregnant non-lactating rural Muslim married women of different age group in Cachar district. Body Mass Index (BMI) is used to classify nutritional status of women. The study reveals that most of the women from the reproductive group suffer from acute mal-nutrition problem while women belonging to pre-menopause and menopause group face the problem of overweight and obesity mostly. The study also reveals that women under old age bracket are suffering from more diseases than the other groups of women. Due to the biological changes in their different phases of life, the morbidity rate of the women is different for different phases. The morbidity rate increases according to their increase in age.

Keywords: *Nutritional status, rural Muslim women, non-pregnant non-lactating, morbidity*
JEL Classification: I 10

1. Introduction

Health and illness are universal phenomenon. Both are differently understood and are an integral and essential part of life for an individual, family, community and society. Many definitions of health have been offered from time to time. However, the widely accepted definition of health is that given by the World health organization (WHO). It defines health, as a state of complete, physical, mental and social well-being and not merely an absence of disease or infirmity.

"A woman's health is her total well-being, not determined solely by biological factors and reproduction, but also by effects of workload, nutrition, stress, war, and migration among others" (Kwaak, 1991). Women constitute half of the world's population. Women's health is important not only for themselves but also for future generations. Women's health affects the well-being of the household and that of the society. The health of families and communities are tied to the health of women. The illness or death of a woman has serious and far-reaching consequences for the health of her children, family and community. As revealed by Ronzio (2004), women are usually vulnerable to malnutrition for both social and biological reasons, throughout their life cycle. Reproductive aged women are subject to numerous stresses affecting their health and well-being. Elderly women in many societies are deprived too. Thus there exists an inter-generational cycle of growth failure for women. Tradition idealizes a woman's role as a mother, housewife and a distributor of food and she eats whatever is left after feeding the family, which results in malnutrition and ill health. Though India has made remarkable progress in basic indicators of health, morbidity remains high. Morbidity is an indicator of illness, which denotes any deviation from the state of normal, physical and mental well-being. It is observed from many studies that the women morbidity rate is comparatively higher than men morbidity rate. Due to the biological changes in their different phases of life, the morbidity rate of the women is different for different phases. The morbidity rate increases after their marriage and the rate of increase of morbidity goes up according to their increase in age. Indian women have high mortality rates particularly in their reproductive age. The morbidity also varies due to different religion. In most Muslim societies, men play a paramount role in determining the health needs of a woman (Shaikh and Hatcher, 2004). Power or control in family decision-making is exercised more often by husband than by wives (Piet-Pelon, 1999). Since men are decision makers and in control of all the resources, they decide when and where woman should seek health care. The low status of women prevents them from recognizing and voicing their concerns about health needs

Cachar is a multi-caste multi religious district of the state Assam, Muslims constitute the second largest religious group in Cachar, and they form the largest single minority. Muslims are described and observed to be poor and marginalized groups. Higher morbidity rates are reported from Muslim communities (Asokan et.al, 2007). As women live longer than men, they suffer from more illness and

disabilities throughout their lives. The present study in this context attempts to analyse the nutritional status and morbidity pattern among Muslim married women in rural are of Cachar district.

2. Review of Literature

There are many literature regarding nutritional status and morbidity pattern of women. The study here reviewed some related literature.

Mittal M (2013) conducted a study to assess the nutritional status and morbidity patterns among 100 non-pregnant non-lactating reproductive rural women. She fined that the mean BMI of the women is 21.12. The study reveals that overall quality of food and nutrient intake is poor. Most of the women suffering from the diseases like pale conjunctiva, menstrual problems and pregnancy complications, etc.

Shewale et al. (2013) examine nutritional status and morbidity profile of brick kiln worker. They find that majority of the worker are illiterate and they do not have access to even basic amenities like safe water, separate place for food, toilet facility etc. and social security measures. Undernourished is widely prevalent among the workers. Musculoskeletal like joint pain, body ache and backache are the commonest morbidity.

Masibo P K et at. (2013) examine the prevalence and determinants of over- and under-nutrition among Kenyan adult women. The result of the study shows that majority of women are belonging to normal range BMI. The result further depicts that over-nutrition is higher than under-nutrition among Kenyan women. The key determinants of under-nutrition are household wealth, province of residence and education achievement while the key determinants of over-nutrition include women's age, marital status, smoking status and partner's educational status.

Das and Das (2012) examine the health status of rural women. The study reveals that diseases increase as age of the women increase. They also find that Hindu women are affected mostly from diseases compared to Muslim and Christian women but the disease intensity of Muslim women is higher compared to Hindu and Christian women. The study explores that reproductive age group of women are mostly affected and they mostly rely on traditional preventive measures due to poor economic condition and poor health infrastructure.

Shraddha K et al. (2012) examine the morbidity pattern of the elderly people. Most common disorder reported by elderly are diseases of the eye followed by endocrine, nutritional and metabolic diseases. Bhatt et al (2011) examine the socio demographic profile and morbidity pattern among aged population. The finding depicts that majority of the respondent are suffering from loco motor, visual & hypertension problem. Paleness is common in both the gender.

Shankar et al (2010) examine the magnitude of malnutrition and the factors associated with nutritional status among newly married women. They find that majority of women have normal BMI. They also observe that most of the underweight women belonged to the Hindu religion and low socio economic status and the percentage of underweight women decreases with the increase in education status.

Rao et al (2010) examines diet and nutritional status of tribal and rural population. They find that the intake of all foods is lower than the suggested level. They further observe that tribal women are vulnerable to under nutrition compared to rural women. The prevalence of chronic energy deficiency is higher among tribal non-pregnant non-lactating women compared to rural women.

Dewan (2008) finds the malnutrition among women. She finds that there is gender inequality in nutrition from infancy to adulthood. Malnutrition in women is related to poverty, lack of development, lack of awareness and illiteracy.

Kumar et.al (2007) examined the influence of socio demographic factors in the treatment seeking behavior for gynecological morbidity among women of different regions. The study revealed that south Indian women are more conscious about their health compared to north Indian women. In south India, the highest rate of treatment seeking was among Muslim women.

3. Objectives of the Study

The main objectives of the study are:

- To assess the nutritional status of non-pregnant non-lactating rural Muslim married women.
- To study the morbidity pattern among rural Muslim married women.

4. Methodology and Data Source

The study is based both on primary and secondary data. Primary data is collected from the field by preparing scheduled questionnaires. Three-stage stratified random sampling techniques are used for collecting the primary data. In Cachar district, there are 15 blocks. Out of these 15 blocks, 35 per cent (approximately) blocks are selected in the first stage. In the second stage, from each selected block, four villages are selected. Therefore, 20 villages are taken into consideration for the study. The selection of blocks and villages are based on large demographic size of women population. In the final stage, eight households from each selected village are considered randomly from Muslim community. Therefore, 184 households are the final number of observation and 214 is the total number of respondents for the study. The secondary data is collected from Census Reports of India and National Rural Health Mission (NRHM).

The nutritional status of the women is analyzed based on their BMI value (Martins et. al. 2010). BMI is defined as Body Mass Index (BMI) =Weight in kg. / (Height in meter) ^{2}.

The morbidity patterns of the women are analyzed based on some common diseases. Total 42 types of diseases are considered in the study. To substantiate the objective, women are categorized into three groups based on their biological changes. These groups are

reproductive group (15-35 age), pre-menopause group (36-45 age) and menopause group (46 and above age). The health problem is analyzed according to different age group as the pattern and natures of most diseases are different for different age group. Diseased women out of total women is calculated through dividing the total number of reported diseased women in a particular disease of a specified age group by total number of women of that specified age group multiplied by 100. Again, percentage of women affected by a particular disease is calculated by dividing the total number of detected diseased women of a particular disease in a specified age group by total number of affected diseased women in that age group multiplied by 100.

5. Result and Discussion

5.1. Nutritional Status of Muslim Women

The nutritional status of the Muslim women in Cachar district is analyzed in the light of the Body Mass Index (BMI) value. From 184 household surveys, total numbers of women are 214, out of which 102 are from reproductive group, 43 from pre menopause group and 69 from menopause group**.** The BMI value is classified into five categories viz; acute malnutrition (whose BMI<18.5), malnutrition (18.5<BMI<19.99), normal (20<BMI<25), over weight (25.001<BMI<29) and Obesity (BMI>30). Acute malnutrition, malnutrition, over weight and obesity represents a state of poor health. Persons having BMI value in the normal range can be considered as enjoying good health. This is shown in Table 1.

BMI Value	Reproductive	Pre Menopause	Menopause	Total
<18.5	50 (49.02)	23 (53.49)	26 (37.68)	99 (46.26)
18.5-19.99	12 (11.76)	2 (4.65)	5 (7.24)	19 (8.87)
20-25	31 (30.39)	9 (20.93)	17 (24.64)	57 (26.63)
25.001-29	8 (7.84)	8 (18.60)	18 (26.08)	34 (15.88)
>30	1 (0.98)	1 (2.32)	3 (4.34)	5 (2.33)
Total	102 (100.00)	43 (100.00)	69 (100.00)	214 (100.00)

Table 1: Nutritional Status of Muslim Women

Source: Primary Survey, January 2014 - August 2014; Note: Note: The values in parenthesis represent percentage

Table 1 reveals that most of the respondents are belonging to reproductive category followed by menopause and pre menopause group of women. It is observed that majority of the women (46.26 per cent) are suffering from acute malnutrition and most of them (53.49 per cent) are from pre-menopause group. The problem of overweight is highest in menopause group (20.08 per cent) followed by pre-menopause group (18.60 per cent). However, obesity cases are rare in all the groups as only 2.33 per cent of women suffers from this problem and out of this 0.98 per cent belong to reproductive group, 2.32 per cent belong to pre-menopause group and 4.34 per cent belong to menopause group. The condition of health is better among the reproductive group. All together 57 (26.63 per cent) respondents from 214 are enjoys a healthy condition. From this, 57 respondents most of the women are from reproductive age group (30.39 per cent) followed by menopause (24.64 per cent) and pre-menopause (20.93 per cent) group.

5.2. Morbidity Pattern of Muslim Women

The health of Indian women is intrinsically linked to their status in society. Researches into Indian women's status have found that their family contributions are often overlooked and they are likely to be regarded as an economic burden, especially in rural areas. This attitude has a negative impact on their health status. Poor health has repercussions not only for women, but also for their children and other family members. Most of the health problems of the women are especially started from reproductive stage. Certain micro level studies carried out in Barak Valley also revealed that morbidity rates among Muslims are higher than that of other communities (Das & Das, 2012; Parveen N. 2015). Morbidity has been defined as "any departure from astate of physical well-being" (WHO).

From 184 household surveys, total numbers of women are 214, out of which 79 per cent of the women are suffering from different types of health diseases. The total number of reported diseased women is 989, which implies that an ill woman is facing on an average more than four types of diseases. However, the picture is different for different age group of women. Out of the total women, the women of menopause (93) group is mostly affected followed by pre menopause (79) and reproductive (70) group. It is observed that the percent of affected women or the number of average disease increases according to the higher age bracket. An affected menopause woman faces more than six (6.61) diseases simultaneously where pre menopause and reproductive group are suffering by more than four (4.70) and three (3.25) types of diseases respectively. The associations between different types of diseases according to the age are discussed and given in Table 2.

Age Group	Total number of women	Affected women	Reported disease	Average number of disease
Reproductive	102	71(70)	331	3.25
Pre-menopause	43	34(79)	202	4.70
Menopause	69	64(93)	456	6.61
Total	214	169	989	4.85

Table 2: Women's Illness in Different Age Group:

Source: Primary Survey, August 2014-December2014; Note: The values in parenthesis represent percentage

5.3. Morbidity Pattern among Reproductive Women

Most of the women belonging reproductive group are facing the diseases such as hair falling, anemia, gastroenterological problem, menstrual and white discharge problem, calcium shortage, sexual and gynecological problem, skin problem, stress, headache etc. Apart from this, there are some other problems like breast problem, respiratory, thyroid, heart disease, piles, kidney, infertility, high pressure, Hepatitis-B etc. are not significantly observed among this group of women. Table 3 represents the different types of disease, which are facing by the women of reproductive group of Cachar district.

Name of disease	Reported diseased women	Diseased out of affected women (%)	Diseased out of total women (%)
Hair falling	34	47.89	33.33
Anemia	33	46.48	32.35
Gastroenterology	31	43.66	30.39
White discharge	29	40.85	28.43
Menstrual problem	28	39.44	27.45
Calcium shortage	24	33.80	23.53
Skin	20	28.17	19.61
Hemoglobin	18	25.35	17.65
Headache	17	23.94	16.67
Sexual	13	18.31	12.75
Gynecological	12	16.90	11.76
Stress	12	16.90	11.76
Low Pressure	11	15.49	10.78
Dental	10	14.08	9.80
Others	14	19.72	38.24

Table 3: Disease Wise Affected Women in Reproductive Stage
Source: Field Survey December 2014.

The above table depicts that out of the total 102 reproductive age group of women, 47.89 percent of women are suffering from hair falling, 46.48 percent of women are suffering from anemia, and 43.66 percent of them are suffering for gastroenterological problem. It is also seen that 40.85, 39.44, 33.80, 28.17, 23.94, 18.31 and 16.90 percent of women are suffering from menstrual, white discharge, calcium shortage, skin problem, headache, sexual and gynecological problems respectively. Out of the total 102 reproductive women, 71 of them reported their problems. The picture of health would be more relevant if the analysis is in terms of affected women. The above table also shows that out of 71 affected women 33.33 per cent of women are facing the problem of hair falling, followed by anemia (32.35), gastroenterological problem (30.35), white discharge (28.43), menstrual (27.45), calcium shortage (23.53) and so on. Thus, from the above analysis it is observed hair falling, anemia, gastroenterological problem, menstrual, white discharge are the major health problems in this age group.

5.4. Morbidity Pattern among Pre Menopause Women

Pre-menopause is a term used to mean the years leading up to the last period, when the levels of reproductive hormones are already becoming more variable and lower, and the effects of hormone withdrawal are present. Pre-menopause often starts some time before the monthly cycles become noticeably irregular in timing. These changes usually begin after the age of 35 years of women as per medical science. Most of the women belonging to this age group are facing the diseases such as Calcium shortage, gas problem, anemia, stress, headache, menstrual, eye, hair falling, mental, white discharge and so on. They are also affected by some other problems viz; respiratory, piles, hearing, breast etc. but the number is very low. Table 4 represents the different types of disease, which are facing by the women of pre menopause group of Cachar district.

Name of disease	Reported diseased women	Diseased out of affected women (%)	Diseased out of total women (%)
Calcium shortage	21	61.76	48.84
Gastroenterology	17	50.00	39.53
Anemia	14	41.18	32.56
Arthritis	14	41.18	32.56
Stress	14	41.18	32.56
Headache	13	38.24	30.23
Menstrual prob.	13	38.24	30.23
Eye	8	23.53	18.60
Hair falling	8	23.53	18.60
Mental	8	23.53	18.60
White discharge	8	23.53	18.60
Giddiness	7	20.59	16.28
Sexual	7	20.59	16.28
Dental	6	17.65	13.95
Gynecological	6	17.65	13.95
Mouth Ulcer	6	17.65	13.95
Hemoglobin	5	14.71	11.63
Skin	5	14.71	11.63
Other	22	64.71	51.16

Table 4: Disease Wise Affected Women in Pre Menopause Stage
Source: Primary Survey, August 2014-December2014

Table 4 depicts that women in this age group are mainly suffers from the diseases like calcium shortage (61.76 per cent) followed by gastroenterology (50.00 per cent), anemia (41.17 per cent), stress (41.17 per cent), arthritis (41.17 per cent), headache (38.23 per cent), menstrual (38.23 per cent) and so on.

5.5. Morbidity Pattern among Menopause Group

Older people usually suffer from chronic conditions. The duration of both acute and chronic conditions is longer for the elderly and their chronic conditions are more likely to be lethal. Frequent chronic ailments among the elderly are gastrological, arthritis, calcium shortage, eye problem, dental, rheumatism, anemia, menopause, giddiness etc. Most often elderly suffers from multiple chronic conditions, visual defects, hearing impairment and deterioration of speech that can cause social isolation. These will be more severe among elderly women as they suffer specific health problems than the usual. With regard to diseases out of total affected women it is reveals from table 5 that most of the women are suffers from gastroenterological problem (65.31 per cent) followed by arthritis (62.24 per cent), calcium shortage (46.94 per cent), eye (46.94 per cent), and dental (38.78 per cent) and so on.

Name of disease	Reported diseased women	Diseased out of affected women (%)	Diseased out of total women (%)
Gastroenterology	64	65.31	57.14
Arthritis	61	62.24	54.46
Calcium shortage	46	46.94	41.07
Eye	46	46.94	41.07
Dental	38	38.78	33.93
Headache	32	32.65	28.57
Rheumatism	31	31.63	27.68
Stress	30	30.61	26.79
Anemia	29	29.59	25.89
Menopause	27	27.55	24.11
Giddiness	26	26.53	23.21
Skin	19	19.39	16.96
Mental	18	18.37	16.07
High Pressure	17	17.35	15.18
Mouth Ulcer	14	14.29	12.5
Heart	13	13.27	11.61
Gall Stone	11	11.22	9.82
Hemoglobin	11	11.22	9.82
Respiratory	11	11.22	9.82
Piles	10	10.2	8.93
Sugar	10	10.2	8.93
Hearing	9	9.18	8.04
Others	33	33.67	29.46

Table 5: Disease Wise Affected Women in Menopause Group
Source: Primary Survey, August 2014-December2014

6. Conclusion

Thus from the above findings it is reveals that health status of rural Muslim married women in Cachar district is very poor. Majority of the Muslim women in Cachar district are suffering from acute malnutrition and the situation is worse for the women of pre-menopause group. However, only a small percentage of women enjoy a good health condition and it is higher in reproductive group followed by pre-menopause and menopause group. The problem of overweight and obesity is higher in menopause group than that of pre-menopause and reproductive group. The study also finds that the percentage of affected women or the number of average disease increases according to the higher age bracket. Out of the total women, the women of menopause group are mostly affected followed by pre menopause and reproductive group. The study further reveals that hair falling, anemia, gastrological, white discharge, menstrual are the major diseases seen in reproductive group whereas calcium shortage, gastrological, arthritis is the area the main diseases found in both pre menopause and menopause group of women.

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