DEMOGRAPHIC PROFILE AND NUTRITION STATUS OF WOMEN IN UTTARAKHAND

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ABSTRACT

Women of Uttarakhand is perform agricultural practices and contribute a major share of family economy in terms of food grains, oilseeds, vegetables, fruits, milk, wool, fuel, fiber, timber etc. The average sex ratio of the region is low. The literacy status of the women is also lower than their male counterpart. The participation of women in the tertiary sector such as medical, teaching, administrative and other official services is lower than the male population. In this part of Himalaya, excess workloads coupled with inadequate nutritious food have led normal to severe under-nutrition problem among the women. Women of this rural based region are busy since early morning to late night in various household activities. Consequently 42 % of the total surveyed women fall under the grip of moderate to severe malnutrition. As a result of malnutrition mothers gave birth to low weight babies. An attempt has been made here to study the demographic profile and nutrition status of the women in the Uttarakhand region. The present study is based on secondary as well as primary data. This study on the overall demographic traits of women in Uttarakhand is based on Census 2011. Total 136 sample women from 14 villages located in different geographical divisions in the Uttarakhand have been selected for detailed study through well structured schedules and personal observation during the door to door visits. The measuring the nutrition status and Chronic Energy Deficiency among the rural women the standards devised have been applied respectively.

Keywords: Uttarakhand, Women, Malnutrition, Chronic Energy Deficiency, Recommended Dietary Allowances.

INTRODUCTION

During the Vedic period women held a respective position in the society and they enjoyed equality with their counterpart. There were no difference between men and women in regard to possession of property and participation in the social and economic activities. They were educated and enjoyed an honored place in the society about youth and old age. Demographic characteristics are most important variables to measure the socio-economic development of any geographical unit. Among them literacy is a qualitative aspect of population which is one of the most important indicators of awakening and cultural. The main aim of the present study is to examine the demographic profile and nutrition status of the women in the Uttarakhand region. Two thousand years ago, the condition of the female in the society underwent a tremendous change. Male biased law has suppressed the right of equality and it created a new convention that a woman has to be under the authority of her father, husband and son, respectively during childhood advancement; whereas a change in literacy reflects the socio-economic and cultural transformation of societies (Pant 2012; 2013 and Pant 2015).

METHODOLOGY

Uttarakhand state is selected for the present study.
Historically, the region under the present study has been divided into two divisions Garhwal and Kumaun. Extending between divided into two parts. First part is based on secondary data published by the Census of India, 2011. Second part is sample study which is based on primary data. A total 136 married sample women from fourteen sample villages have been selected and data has been collected with the help of well structured questionnaires during the field study. For the measuring the nutrition status and Chronic Energy Deficiency among the rural women the standards devised by the Gopalan et al., 1993 and James et al., 1988 have been applied respectively.

Demographic profile of women

Distribution pattern

According to the 2011 census, the 10,086,292 persons of Uttarakhand lived in thirteen districts. Among them 49, 48,519 or 49.1% are women. Out of the total population in the state 18.8% and 2.89% population enumerated as scheduled castes and scheduled tribes respectively. About 48.8% and 49.1% women are registered in these categories also. Out of total women in the Uttarakhand 46.9% are registered in the urban area. About 48.4% of the scheduled tribe, category females of Uttarakhand are enumerated as urban in 2011. Out of total population of Uttarakhand, 30.23% persons are living in urban areas just comparable to the national average (31.15%). The proportion of urban population varies from 3.49% in Bageshwar to 55.52% in Dehradun district. About 28.91% females of total females of Uttarakhand are registered as urban residents, which is also less than the country average (30.92%). It also shows similar pattern as total. Out of the total population of Uttarakhand only 3.92% scheduled castes population are enumerated as urban in census 2011, which is only 0.01% less than the national average. The percentage of scheduled castes urban population varies from 0.58% in Rudraprayag to 6.47% in Dehradun. Ten districts have less scheduled castes urban population than regional and national average. The districts which have more than 5% scheduled castes urban population are Dehradun (6.47%), Nainital (5.58%) and Hardwar (5.5%). The proportion of scheduled castes female to total females in urban are is only 3.81% which is compatible to the national average 3.93%. For the measuring the nutrition status and Chronic Energy Deficiency among the rural women the standards devised by the Gopalan et al., 1993 and James et al., 1988 have been applied respectively.

Literacy pattern

As per census 2011, the total population of Uttarakhand is registered 78.8% literacy which is higher than that of country’s average. The total literacy of the state in 2011 varies minimum 73.1% in U. S. Nagar to maximum 84.2% in Dehradun. Average male literacy of Uttarakhand is 87.4% which is also more than the national average. The average women literacy in the region is registered 70.0% in 2011. The female literacy is varies from minimum 62.4% in Uttarkashi to 78.5% in Dehradun. The average gap in male and female literacy is computed 17.4 % in 2011 census. It varies minimum 10.9 % in Dehradun to maximum 26.4% in Uttarkashi. The low literacy rates in U. S. Nagar. and Hardwar districts is because these districts have less number of educational institutions in one hand and lack of awareness among the people on the other. The average literacy of scheduled castes female is registered 64.1% in 2011 which is 20.3% less than male literacy of same category. The average gap in male and female literacy rates among scheduled castes varies from 15% in Dehradun to 25.3% in Uttarkashi district. The female literacy of tribal population in Uttarakhand is registered 63.9% which is less than the average female literacy of all castes population.

Sex ratio

The average sex ratio of the state is registered 963 females per thousand male although more than fifty percent (53.8%) districts have more females than males. These are Chamoli, Rudraprayag, Tehri, Pauri
Garhwal, Pithoragarh, Bageshwar and Almora. The sex ratio of total population in Uttarakhand is vary from minimum 880 females per thousand males in Hardwar district to maximum 1139 females per thousand males in Almora. The children (0-6 year age) sex ratio of total population in Uttarakhand is registered 890 females/1000 males i.e. less than the average (963). The sex ratio pattern among the scheduled caste population is similar to all castes population. The number of scheduled castes females per thousand males in Uttarakhand is 954. The average sex ratio of scheduled tribe population is same (963 females/1000 males) to total population. The total child sex ratio of scheduled tribe population varies minimum 806 females / 1000 males in Hardwar district to maximum 1082 in Pauri district. Only two (15.38%) districts have more females than males. Uttarakhand is only state in the country where maximum districts are in the range of high sex ratio because of the overwhelming out migration of male population from the hill region.

Work force participation-workers

The percentage of total workers in total population in Uttarakhand is recorded 38.4% which is lower than the national average (39.8%) as a whole in 2011. More than 60% population is dependent in the working population. Owing to the paucity of industries, all able bodied persons have engaged him/her self in the easily available works such as agriculture, animal husbandry, horticulture etc. About 49.7% males of Uttarakhand are registered as workers in 2011, which is lower than the national average (53.3%). Out of total females only 26.7% are considered as workers, in the whole Uttarakhand which is 1.2% higher than the national average (25.5%). There is lot of latent unemployment examples are visible in the Uttarakhand. Out of total scheduled castes population 38.7% are considered as workers, which is lower than the national average (40.9%). Out of total male population of this category 48.4 % are registered as scheduled castes male workers. About 28.6 % of total scheduled castes women are enumerated as workers which is slightly higher than the national (28.3%) average. Out of total scheduled tribe population 45.4 % persons are registered as workers which are lower than the national average (48.7%). Out of total scheduled tribe male population 54.1% persons are registered as worker. Out of total tribal women only 36.3% women are enumerated as worker, which is less than the national average (43.5%). The low percentage of female workers in scheduled tribe population is because the lack of awareness and educational qualification along with the fewer opportunities in the state.

Main workers

About 74.1% population of the total workers of Uttarakhand is registered as main worker in 2011, which is lower than the national average 75.2%. Out of the total main male and female workers of Uttarakhand, 81.1 % males and only 60.6% females are registered as main workers, which are lower than the national averages. Proportion of main workers is reflection of the educational and infrastructural level of the region; where these facilities are available the proportion of main workers is high and vice- versa. It is also noticed that in the mountainous parts of the region people have forcefully engaged themselves in agricultural and animal husbandry activities. Out of total scheduled castes population 68.6 % are considered as main workers which is lower than the national average (70.7%). Out of total male population of this category 74.4% are registered as scheduled castes male main workers, which are lower than the national average (77.4%). About 58.2% of total scheduled castes women are enumerated as main workers which is slightly higher than the national (57.6 %) average. Out of total scheduled tribe population 68.2 % persons are registered as main workers which are higher than the national average (64.8%). Out of total scheduled tribe male population 78 % persons are registered as main worker which is more than the regional average (74.5%). The low percentage of female main workers in scheduled tribe population is because the lack of awareness and educational qualification along with the fewer opportunities in the state.
**Occupational structure by category—cultivators**

As already stated, 74.1% workers of the total working population in the Uttarakhand is registered as main workers in the census 2011. Out of them 36.4% population is enumerated as a cultivator which is 10% more than the national average (26.4%) in 2011. Subsistence type of agriculture is found in the 80% hilly part of Uttarakhand. The proportion of male cultivators in Uttarakhand is 50.3% of total male main workers which is higher than the country average (46.3%). Out of total female main workers 73.3% females are registered as cultivators in the state which is 1.2% below from the country average. Out of total scheduled castes main workers 61.3% persons are registered as cultivators in Uttarakhand which is 2.2% more than the national average (59.1%). The proportion of scheduled castes male cultivators to total main workers in Uttarakhand is reported 51.6% which is higher than the country average (47.2%). The participation of male cultivators is lower than the total and female cultivators in all districts of Uttarakhand and country averages. The proportion of scheduled castes female cultivators (71.4%) is higher than the scheduled tribe female cultivators. Among the scheduled tribe population 54.6% persons are considered as cultivators which are higher than the country average (51.3%). The participation of male cultivators of scheduled tribe population in Uttarakhand is lower than the total and female cultivator averages. The proportion of scheduled castes female cultivators (71.4%) is higher than the scheduled tribe female cultivators. Among the scheduled tribe population 54.6% persons are considered as cultivators which are higher than the country average (51.3%). The percentage of male cultivators of scheduled tribe population in Uttarakhand is lower than the total and female cultivator averages. On an average 63.7% females of scheduled tribe main workers are registered as cultivators.

**Agricultural laborers**

Out of total main workers 8.6% population is registered as an agricultural labourer which is 15% less than the national average (23.8%) in 2011. Maximum agricultural activities are performed by the land holders themselves in Uttarakhand. More than 70% holding size is very small (below 1 acre land). The proportion of male agricultural labourers in Uttarakhand is 9.5% of total male main workers which is about 11% lower than the country average (20.2%). Out of total female main workers 6.4% females are registered as agricultural laborers in the state which is about 28% below from the country average (34.6%). Out of total scheduled castes main workers 15.2% persons are registered as agricultural labourers in Uttarakhand which is 25% less than the national average (40.2%). The proportion of scheduled castes male agricultural labourers to total main workers in Uttarakhand is reported 17.3% which is lower than the country average (36.1%). The proportion of scheduled castes female agricultural labourers (10.3%) is lower than the country average of (51.1%) scheduled castes female agricultural labourers. Among the scheduled tribe population 14% persons are considered as agricultural labourers which is lower than the country average (36.3%). The percentage of male agricultural labourers of scheduled tribe population in Uttarakhand is lower than the total and female agricultural labourer's averages. On an average 14.6% females of scheduled tribe main workers are registered as agricultural labourer which is 30.5% lower than the country average (45.1%).

**Workers in household industries**

Out of total main workers in Uttarakhand 2.7% workers are registered in household industry which is lower than the country average (3.7%). The percentage of male household industry workers varies from minimum 1.7% in Tehri and Champawat district to maximum 3.5% in Dehradun. Out of total female main workers 2.9% females are registered as male household industry workers in the state which is about 2.5% below from the country average (5.4%). The proportion of female household industry workers is more than their counterpart. Women are most suitable workers for household industry activities. Out of total scheduled castes main workers 2.3% persons are registered as household industry workers in Uttarakhand as comparable to the national average (2.8%). The proportion of scheduled castes male household industry workers to total main workers in
Uttarakhand is reported 2.1% which is lower than the country average (2.2%). The proportion of scheduled castes female household industry workers (2.5%) is 1.9% lower than the country's (4.4%) scheduled castes female household industry workers. Among the scheduled tribe population 3.3% persons are considered as household industry a worker which is higher than the country average (1.3%). The percentage of male household industry worker (2.0%) of scheduled tribe population in Uttarakhand is lower than the total and female household industry worker averages. On an average 6.4% females of scheduled tribe main workers are registered as household industry worker which is higher than the country average (1.8%). Scheduled tribe woman of this region are generally engaged themselves in household cottage industry. The basic requirement for cottage industry is good quality wool, which is easily available in the districts of Pithoragarh, Bageshwar, Uttarkashi and Chamoli. Tribal people of these districts have number of good quality sheep and goats who produce fine quality wool. Tribal woman have expertise to make good quality woolen clothes, shawls, blankets etc.

Other workers

About 52.3% workers are registered as other worker in Uttarakhand which is higher than the country average (46.4%). Out of total male main worker 61.6% are registered as other worker which is 11.3% more than the country average (50.3%). Out of total female main workers 28.2% females are registered as other workers in the state which is about 6.3% below from the country average (34.5%). Out of total scheduled castes main workers 43.8% persons are registered as other worker in Uttarakhand which is more than the national average (40.5%). The proportion of scheduled castes male other worker to total main workers in Uttarakhand is reported 52.6% which is higher than the country average (44.3%). The proportion of scheduled castes female other workers (23.9%) is 6.8% lower than the country's (30.7%) scheduled castes female other workers. Among the scheduled tribe population 25% persons are registered as other worker which is higher than the country average (21.6%). The percentage of male other worker (27.8%) of scheduled tribe population in Uttarakhand is higher than the country average (24.4%). On an average 18.6% females of scheduled tribe main workers are registered as other worker which is higher than the country average (16.7%).

Sample study - workload status of rural women

Average per day working hours of the women interviewed under this stands categorized into four groups—working 8 hours, working 12 hours, 16 hours and working about 20 hours. Only three women (2.2%) of the total 136 sample were working 8 hours a day. Overwhelming proportion or about 72% of the total samples spent 16-20 hours work per day. This overburdened work, in the absence of proper nutritious diet and health care to bind to create serious health repercussions for the mother and child. The outdoor works are highly time consuming and about 10 hours (62%) out of average daily 16 hours is consumed towards its performance. Remaining time is devoted to indoor activities. It is noticed that the entertainment hours are very less for the women folk than that of their male counterpart. The working hours of the women for performing the indoor and outdoor activities vary from one season to another. It is observed that the hours of daily work are highest in the rainy season because relatively more crops are grown during this season.

Nutrition status of rural women

Food intake pattern of the sample is more or less similar to the region while food items and preparation methods may vary from one place to another. Food items depend on the availability of raw food while preparation depends on the tradition. Out of total sample 46.32% women had their food twice and 53.68% thrice in a gastronomic day. Though, breakfast includes in almost full meal as they were often engaged in strenuous works. It is evident from
the study that 49.26, 27.94 and 15.44% women had milk, curd and ghee daily while 22.06, 21.33 and 22.06% women did not consumed these items respectively even occasionally. Likewise daily pulse intake accounts for only 5.15% of the total sample women while 17.64%, 34.56, 36.77 and 5.88% respectively, consumed pulses four times per week, twice a week/weekly and monthly. Only 2.21 and 1.47% were taking green vegetables weekly and daily, respectively. It is very considerable that 96.32% women have consumed green vegetables monthly. It is observed during the field study that there were no differences between the pregnant, nursing and general women for the edible items intake point of view. Since the study indicates that an overwhelming proportion of the sample women were deprived from metritious food items leading to their poor health condition. Taking together the entire 136 samples approximately per capita per day cereal intake was 11.53% less than the standard requirement of 440 grams. The per head per day cereal intake of general category women was registered 399.7 grams, pregnant women 391.36 grams and lactating category women was 388.08 grams. The capita daily consumption of pulses was found only 23.96 grams in general category, women while 23.75 and 28.88 grams were found in pregnant and lactating category respectively which is too less than the standard need. Similarly, the consumption of vegetables, cooking oil, milk and milk product, fruits etc. by all category women found less than the standard requirement. It is observed that sample women were totally unaware about the additional and nutritious food requirements during pregnancy, nursing and menstrual periods. Consequently, the nutrition intake was found below the standard requirement. It varies from one village to another and one category women to other category women. Per head per day energy intake of general category women was found 12% below the standard requirement of 2225 kcal. Similarly per capita daily energy intake of pregnant and lactating women was 23.09 and 20.02% below the standard requirement of 2525 kcal and 2700 kcal respectively. The study indicates that the percentage of nutrition deficiency is increasing from general, pregnant and lactating category women.

Body Mass Index (BMI) and chronic energy deficiency (CED)

The reflection of the poor nutrition intake by the women is seen in their physiological traits mainly in height and weight. The study reveals that 28% of total women were below 40 kg weight, which can be termed as low weight from pregnancy point of view. About 60% women weight were more than 51 kg weight. Average weight of the sample was 44.29 kg only. The study indicates that women’s height 140 to 145 cm, were 7.35%, which can be termed as short stature. About 55.15% women were the 151 to 155 cm heights. This study shows that the weight in reference to height of the sample women was very low. To measure the magnitude of malnutrition Body Mass Index (BMI) has been calculated for each category women. Body Mass Index was calculated using the formula: where Height is in meter and Weight in Kg. The BMI has been classified into seven groups: (1) Below 16 - CED grade III (Severe), (2) 16.01-17.0 CED grade II (Mild), (3) 17.01-18.5 CED grade I (Moderate), (4) 18.51-20 low weight normal, (5) 20.01-25 Normal, 25.01 -30.0 Obese grade I, (6) Above 30.01 Obese grade II. Using BMI 18.5 as the criteria (optimum) for CED (Chronic Energy Deficiency), about 43.59% of total general women (39) were found suffering from various degree of CED. Among them 15.38% were found to suffer CED grade II and 28.21% from CED grade I form of malnutrition. Out of total surveyed general category women 23.08% were found in low weight normal category while 33.33% were found normal category. The mean BMI of general category was 19.24. Among them only one 2.27% suffering from CED grade III (severe) while 9.1% were found suffer from CED grade II (mild). Out of total 20.45% pregnant women were found CED low weight normal and 40.91% were CED normal. Only one case (2.27%) was found suffer from obese grade I. The mean BMI of pregnant women was 19.66. Out of total
53 lactating women about 47% women were found suffering from CED the mean BMI of lactating category women was 18.89 which were lower than the regional BMI of 19.26. Due to the various forms of malnutrition prevailing in the rural areas a number of repercussions have been found (Pant 2001, 2002, 2003 and 2004).

CONCLUSION

Women held a respective position in the society and they enjoyed equality with their counterpart in the Vedic period. About two thousand years ago, the condition of the female in the society underwent a tremendous change. Male biased law has suppressed the right of equality and it created a new convention that a woman has to be under the authority of her father, husband and son, respectively during childhood, youth and old age. These binding have affected her social and economic status in the society. According to the 2011 census, the 10,086,292 persons of Uttarakhand lived in thirteen districts. Among them 49.1% are women. Out of the total population in the state 18.8% and 2.89% population enumerated as scheduled castes and scheduled tribes, respectively. Out of total women in the Uttarakhand 46.9% are registered in the urban area. The average sex ratio of the state is registered 963 females per thousand male although more than fifty percent (53.8%) districts have more females than males. The children (0-6 year age) sex ratio of Uttarakhand is registered 890 females/1000 males i.e. less than the average (963). The child sex ratio of the 53.8% districts is less than 900 females /1000 males. As per census 2011, the total population of Uttarakhand is registered 78.8% literacy, which is higher than that country's average. The average women literacy in the region is registered 70.0% in 2011. The average literacy of scheduled castes female is registered 64.1% in 2011 which is 20.3% less than male literacy of same category. The female literacy of tribal population in Uttarakhand is registered 63.9% which is less than the average female literacy of all castes. The low level of female literacy was associated with the traditions in which little emphasis was placed on education in one hand and less number of educational institutions on the other. The districts having high literacy level associated with relatively high level of urbanization and proportionally more population is engaged in secondary and tertiary jobs. The study shows that 74.1% population of the total workers of Uttarakhand is registered as main worker in 2011 which is lower than the national average. The rural women of the region are overburdened with household works. Women participation is found in almost all the rural occupations. Besides all household activities, women role in agricultural operations is very significant. The nutrition intake pattern was found below the standard requirement. It varies from one village to another and one category women to other category women. Using BMI 18.5 as the criteria (optimum) for CED (Chronic Energy Deficiency), about 43.59 % of total general women (39) were found suffering from various degree of CED. Among them 15.38 % were found to suffer CED grade II and 28.21% from CED grade I form of malnutrition. Out of total surveyed general category found women 23.08% were found in low weight normal category while 33.33% were found normal category. Due to the various forms of malnutrition prevailing in the rural areas a number of repercussions have been observed and noted during the field study. There is urgent need to establish various educational and medical institutions in the rural areas of Uttarakhand. Infrastructural development is also required. Awareness campaign regarding the proper nutrition, hygiene, sanitation, dietary habits, family planning etc should be launched in the rural and remote areas. These targets can be achieved with the help of women of all segments. Participation of rural women should be compulsory in preparation of any village development plan.

REFERENCES


