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To assess the awareness of nutrients among high, middle and low income group

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Abstract
This investigation was selected to carry out the "To assess the Awareness of impact of food & nutrition security on the health status of among the high, middle and low income age group". The present study was carried out in Kanpur (up) 2016-17. The sample size for study was 150 respondents. The self- structured questionnaire schedule was used for data collection. The demographic and socio economic condition of respondents varied from location to location. The socio economic conditions of high income group correspondents were better than middle and low income group. The 22.0 per cent, 16.0 per cent, 24 women and 4.0 per cent, 2.0, 8.0 per cent man were belonged to 30-35 age groups from high, middle and low income group, respectively. While women were found 82.0 per cent, 86.0 per cent and 78.0 per cent from high, middle and low income group. The majority of women 40.0 per cent and that of man 16.0 per cent was found graduation above education from high income group. Majority of the women were not working 36.0 per cent, 50.0 per cent, 24.0 per cent from high, middle and low income group respectively. The healthy of women was 64.0 per cent and 54.0 per cent. And that man was found 14.0 per cent and 8.0 per cent from high and middle income group. The high income group's respondent were found better physically fit than middle and low income group correspondents its terms of health and addiction habit. The differences in cooking method were found more in location. They respondents were mostly storage cereals and pulses from middle income group. The high income group correspondents were more aware about the nutrition and their impact than middle and low income group. Overall it depicts that rate of effectiveness of impact of nutrient were somewhat effective because respondents were less aware of nutrition and less food security from middle and low income group.

Keywords: health status, awareness nutrient, knowledge food security

Introduction
The World Health Organization has proposed the theoretical framework of social determinants of health to research and take action to reduce inequities in health status across regions, countries, groups and social classes. In this paper we propose a scheme for the study of food and nutrition situation in Colombia from the perspective of the social determinants of health, assuming it as the result of processes and phenomena of global and local scope. Alvarez Castan & Perez Isaza (2013) [1] Vegetables play an important role in promoting household food security and nutrition, and provide a sustainable solution to micronutrient malnutrition which is affecting the health of people on the planet, especially children. Vegetable production generates employment and income of small scale farmers especially women, while safeguarding the natural resource base. The sector offers one of the highest impacts to reducing poverty and hunger, and a great potential for achieving sustained improvements in the nutrition status of the poor. On the other hand, production of vegetables is considerably lower than the estimated recruitments, and much of the potential of the expansion of vegetable cultivation remains largely untapped, in part due to government policies and priorities on increasing domestic production of main staples in a framework of attaining calorie based food security. HiroyuKi, K. (2013) [2] Food and nutrition security in high income countries from a practice sociology is associated with the work of a range of European scholars pierre bourdieu (1977); Elizabeth shove (2009) alan warde (1997) and ted schatzki (2002). Practice sociology operates as a meso-theoretical engagement, gender focus on the way societal level forces- modernization, corporatization neo-liberalism, gender relation, socio-economic relation – influence the pre-dispositions of individuals and sub populations to act in certain ways. Practices can be considered to the value-laden, or meaningful, activity sets that; are shared between individual who occupy similar social status position; have a contextually specific history; and are explainable (i.e., they are are not random.) food safety concern and cooking techniques) the time available to select, procure, prepare and consume food, which is turn shaped by other practices (e. g., lab our force engagement and commuting. (Pierre bourdieu 1977). The nutritional status of children and its association with their socio-demographic variables and food security status in disadvantaged rural Bangladesh. Three anthropometric indicators, namely stunting, underweight and thinness were measured among children Six child-referred questions were used to construct the children's food security scale. Simple and multiple binary logistic regression analyses were used to assess the likelihood of children's nutritional and food security level. The study. Among the younger children, the prevalence of severe stunting the respective prevalence was Among the children aged boys were more likely to stunt

likely to thin more likely to face food insecurity. Maternal education, number of children in the family and household income were the strong predictors of child nutritional status. Quddus M. A. & Bauer S. (2003)

Objective

- To find out the socio-economic status of respondent.
- To assess the awareness of nutrition of respondent.

Materials and Methods

The present study was a cross-sectional design conducted in Kanpur from a major city in South India.150 respondents aged 30-50 years formed the study population. A self administered questionnaire was used to collect information on socio-demographic indicators, food habits and preferences. The students filled in the questionnaire in the home. Instructions on filling in the questionnaire were given. The aim of the study and the contents of the questionnaire were explained to each subject, and voluntary participation was requested. The questionnaire included data regarding demographic features like chronological age, education, occupation, awareness about nutrition and food security. Height measuring scale was used to measure height to the nearest of 0.1 cm. Body weight was measured using a battery operated digital balance (Glan Electronic Scale) the balance was checked for its accuracy each time before use, measurements were made to the nearest of 0.1 kg.

Result

Table 1: Distribution of respondents according to Age

Age	High income group		Middle income group		Low income group	
	Frequency/percent		Frequency /percent		Frequency /percent	
	Men	Women	Men	Women	Men	Women
30-40 years group	5 (10.0)	20 (40.0)	2(4.0)	26(52.)	8(16.)	24(48.0)
41-50 years group	4 (8.0)	21(42.0)	5(10.0)	17(34.0)	3 (6.0)	15(30.0)
Total	50 (100.0)		50 (100.0)		50 (100.0)	

Table. 1 reveals that distribution of respondents according to age 2.0 per cent male, 10.0 per cent female high income group and 4.0 per cent male, 14.0 per cent female middle income group and 2.0 per cent male, 20.0 percent female low income group were belonged to 25-30 years age group. While 4.0 per cent male, 22.0 per cent female high income group and 2.0 per cent male, 16.0 percent female middle income group and 8.0 percent male, 24.0 percent female low income group were belonged to 31-35 years age group. Whereas 2.0 per cent male, 14.0 per cent female high income group and 2.0 per cent male, 24.0 per cent female middle income group and 4.0 per cent male, 10.0 per cent female low income group were belonged to 36-40 years age group. And 4.0 per cent male, 18.0 per cent female high income group and 2.0 per cent male, 20 percent female middle income group and 6.0 per cent male, 14.0 per cent female low income group were belonged to 41-45 years age group. Only 6.0 per cent male, 16.0 per cent female high income group and 4.0 per cent male, 12.0 percent female middle income group and 2.0 per cent male, 10.0 per cent female low income group were belonged to 46-50 years age group from high, middle income group.

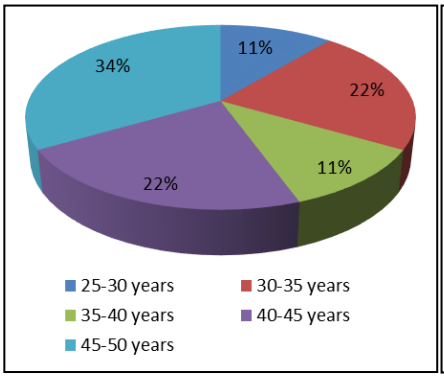


Fig 1: High income age group (male)

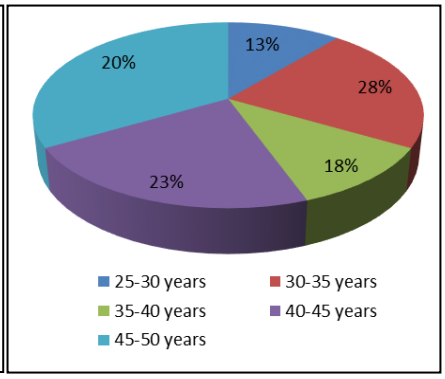


Fig 2: High income age group (Female)

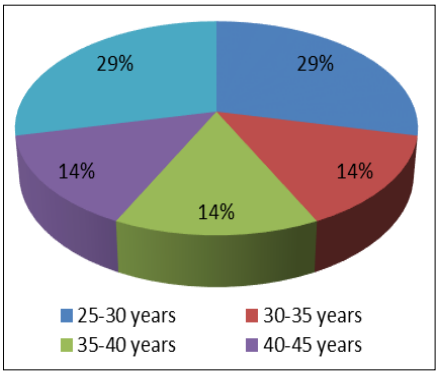


Fig 3: Middle income age group (male)

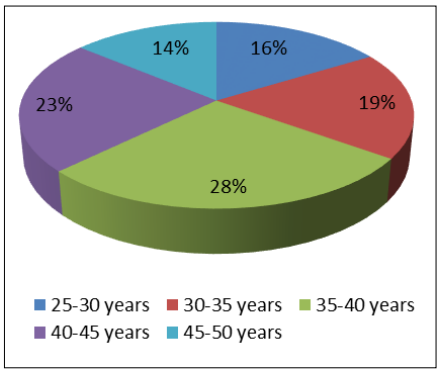


Fig 4: Middle income age group (female)

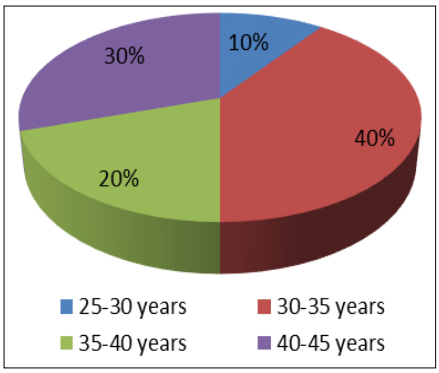


Fig 5: Middle income age group (male)

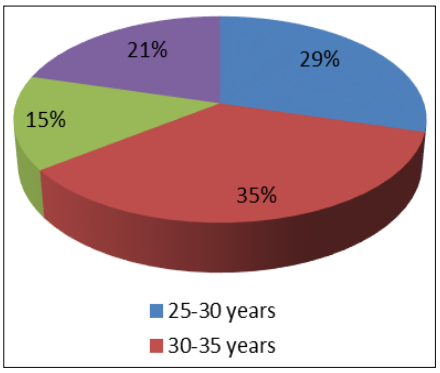
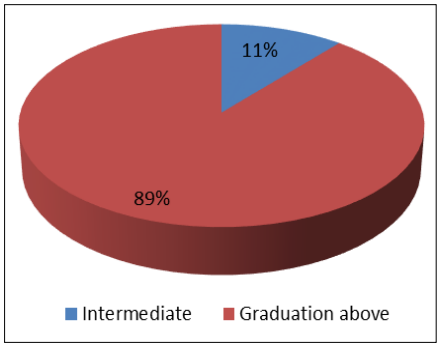


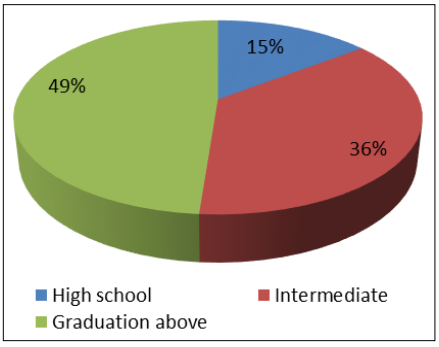
Fig 6: Middle income age group(female)

Table 2: Distribution of respondents according to Education.

Education	High income group		Middle income group		Low income group	
	Frequency/percent		Frequency /percent		Frequency /percent	
	Men	Women	Men	Women	Men	Women
Up to primary	-	-	-	-	2 (4.0)	9 (18.0)
Secondary	-	-	-	-	4 (8.0)	16 (32.0)
High school	-	6 (12.0)	2 (4.0)	20 (40.0)	2 (4.0)	12 (24.0)
Intermediate	1(2.0)	15 (30.0)	2 (4.0)	14 (28.0)	2 (4.0)	2 (4.0)
Graduation above	8 (16.0)	20 (40.0)	3 (6.0)	9 (18.0)	-	-
Total	50 (100.0)		50 (100.0)		50 (100.0)	

Table. 2 reveals that distribution of respondents according to education 4.0 per cent men and18.0 percent women were from low income group, belonged to primary education. And 8.0 percent men, 32.0 percent women low income group were belonged to secondary education. Where as 12.0 percent women high income group, and 4.0 percent men, 40.0 percent women middle income group and 4.0 percent men, 24.0 percent women low income group were belonged to high school education. Where as 2.0 percent men, 30.0 percent women high income group, and 4.0 percent men, 28.0 percent women middle income group and 4.0 percent men, 4.0 percent women low income group were as belonged to intermediate education. And 16.0 percent men, 40.0 percent women high income group, and 6.0 percent men, 18.0 percent women middle income group were as belonged to graduation education.





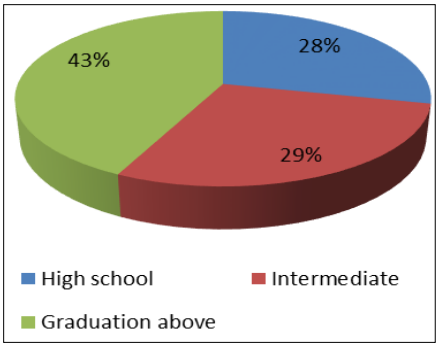
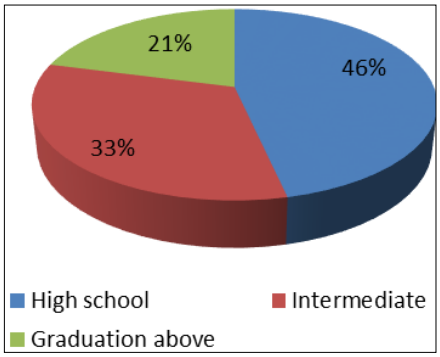
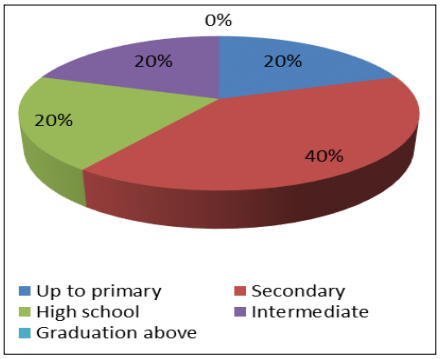


Fig 7: High income group (male) Education **Fig 8:** High income group (male) Education **Fig 9:** High income group (male) Education





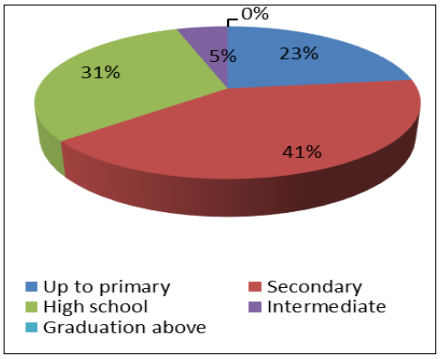


Fig 10: High income group (female) Education **Fig 11:** Low income group (male)Education **Fig 12:** Low income group(male)Education

Table 3: Distribution of respondents according to awareness about protein source and deficiency

Awareness about protein, source, deficiency	High income group		Middle income group		Low income group	
	Frequency /percent		Frequency /percent		Frequency /percent	
	Men	Women	Men	Women	Men	Women
Yes	9 (18.0)	35 (70.0)	6 (12.0)	30 (60.0)	5 (10.0)	21 (42.0)
No	-	6 (12.0)	1 (2.0)	13 (26.0)	6 (12.0)	18 (36.0)
Total	50 (100.0)		50 (100.0)		50 (100.0)	

Table. 3 reveals that distribution of respondents according to knowledge about protein source and deficiency. The majority 18.0 per cent male, 70.0 per cent female high income group and 12.0 per cent male, 60.0 percent female middle income group and 10.0 per cent male, 42.0 percent low income group female were found aware. Whereas 12.0 percent female high income group and 2.0 percent male, 26.0 percent female middle income group and 12.0 percent male, 36.0 percent female low income groups. Female were found unaware about protein, source, deficiency.

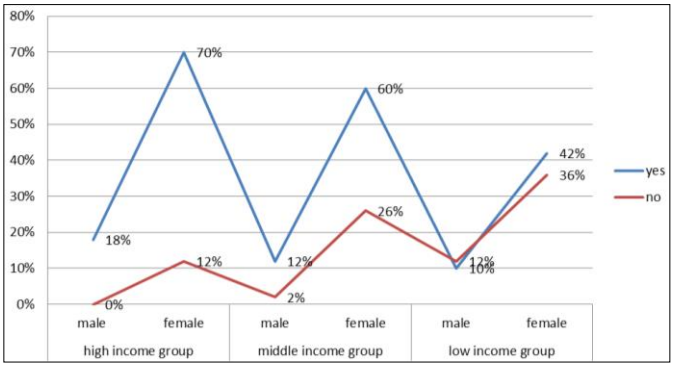


Fig 13: Awareness of protein

Table 4: Distribution of respondents according to awareness about Carbohydrate source and deficiency

Awareness about carbohydrates, source, deficiency	High income group		Middle income group		Low income group	
	Frequency /percent		Frequency /percent		Frequency /percent	
	Men	Women	Men	Women	Men	Women
Yes	7 (14.0)	30 (60.0)	6 (12.0)	26 (52.0)	5 (10.0)	15 (30.0)
No	2 (4.0)	11 (22.0)	1 (2.0)	17 (34.0)	6 (12.0)	24 (48.0)
Total	50 (100.0)		50 (100.0)		50 (100.0)	

Table. 4 reveals that distribution of respondents according to awareness about Carbohydrate, source and deficiency 14.0 per cent male, 60.0 percent female high income group and 12.0 per cent male, 52 percent female middle income group and 10.0 per cent male, 30.0 per cent female low income group were aware about carbohydrate. Whereas 4.0 per cent male, 22.0 per cent female high income group and 2.0 per cent male, 34.0 percent female middle income group and 12.0 per cent male, 48.0 percent female were unaware about carbohydrate, source, deficiency in high, middle and low group. Carbohydrate is the primary energy source for brain, central nervous system and red blood cells. RDA for carbohydrate of 130 g per day for adults and children. This value is based upon the amount of carbohydrate (sugar and starches) required to provide the brain with an adequate supply of glucose.

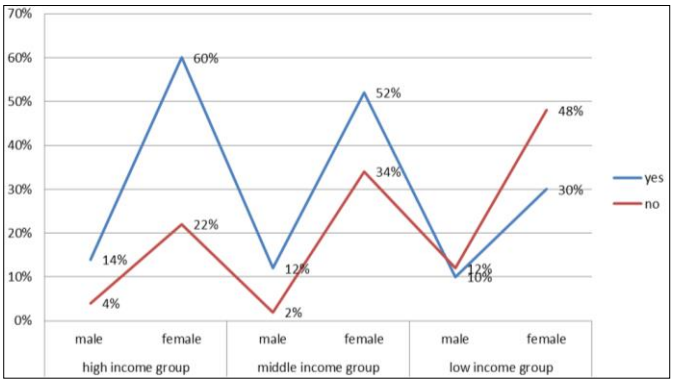


Fig 14: Awareness of Carbohydrat**e**

Table 5: Distribution of respondents according to awareness about fat source, deficiency

Awareness about fat, source, deficiency	High income group		Middle income group		Low income group	
	Frequency /percent		Frequency /percent		Frequency /percent	
	Men	Women	Men	Women	Men	Women
Yes	7 (14.0)	30 (60.0)	5 (10.0)	24 (48.0)	4 (8.0)	17 (34.0)
No	2 (4.0)	11 (22.0)	2 (4.0)	19 (38.0)	7 (14.0)	22 (44.0)
total	50 (100.0)		50 (100.0)		50 (100.0)	

Table. 5 reveals that distribution of respondents according to awareness about fat, source, deficiency. 14.0 per cent male, 60.0 percent female high income group and 10.0 per cent male, 48.0 per cent female middle income group and 8.0 percent male, 34.0 percent low income group female were aware about fat. Whereas 4.0 per cent male, 22.0 percent female high income group and 4.0 percent male, 38.0 percent female middle income group and 14.0 percent male, 44.0 percent female low income group female were unaware about fat, source, deficiency in high, middle and low income group.

Fat provides nine calories per gram while carbohydrates and protein each provide four calories per gram, so choosing low-fat foods makes it possible to eat a large volume of food for the same number of calories. Low-fat diets are intended to reduce diseases such as heart disease and obesity.

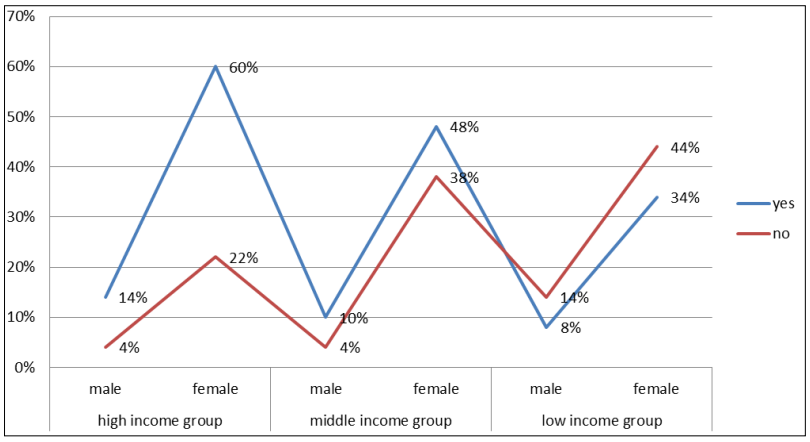


Fig 15: Awareness of Fat

Table 6: Distribution of respondents according to awareness about Vitamins, source and deficiency

Awareness about vitamin, source, deficiency	High income group		Middle income group		Low income group	
	Frequency /percent		Frequency /percent		Frequency /percent	
	Men	Women	Men	Women	Men	Women
Yes	9 (18.0)	33 (66.0)	7 (14.0)	30 (60.0)	7 (14.0)	21 (42.0)
No	-	8 (16.0)	-	13 (26.0)	4 (8.0)	18(36.0)
Total	50 (100.0)		50 (100.0)		50 (100.0)	

Table. 6 reveals that distribution of respondents according to awareness about Vitamins, source, deficiency. The majority 18.0 per cent male, 66.0 percent female high income group and 14.0 percent male, 60.0 percent female middle income group and 14.0 percent male, 42.0 per cent female low income group female were found aware. Whereas 16.0 per cent female high income group and 26.0 per cent female middle income group and 8.0 per cent male, 36 percent female low income group female were unaware about vitamin, source, deficiency in high, middle and low income group. Vitamins are essential for the normal growth and development of a multicellular organism. Even minor deficiencies may cause permanent damage.

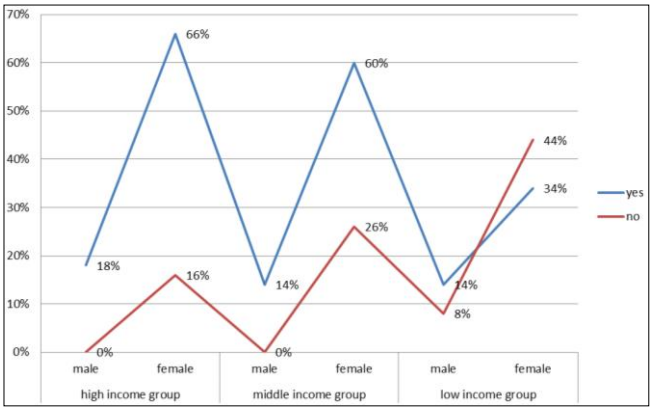


Fig 16: Awareness of Vitamin

Table 7: Distribution of respondents according to awareness about Mineral, source and deficiency

Awareness about mineral, source, deficiency	High income group		Middle income group		Low income group	
	Frequency /percent		Frequency /percent		Frequency /percent	
	Men	Women	Men	Women	Men	Women
Yes	8 (16.0)	30 (60.0)	5 (10.0)	25 (50.0)	4 (8.0)	17 (34.0)
No	1 (2.0)	11 (22.0)	2 (4.0)	18 (36.0)	7 (14.0)	22 (44.0)
Total	50 (100.0)		50 (100.0)		50 (100.0)	

Table. 7 reveals that distribution of respondents according to awareness about Mineral, source and deficiency. The majority 16.0 per cent male, 60.0 per cent female high income group and 10.0 per cent male, 50.0 percent female middle income group and 8.0 per cent male, 34.0 percent female low income group women were aware about Mineral, source and deficiency. Whereas 2.0 per cent male, 22.0 percent female high income group and 4.0 per cent male, 36.0 percent female middle income group and 14.0 per cent male, 44.0 per cent female female were unaware about Mineral, source and deficiency in high, middle and low income group. Mineral have a variety of functions. Magnesium helps convert blood sugar to energy, and is the anti-stress mineral. Good sources cheese, eggs, milk, onion, and green vegetables.

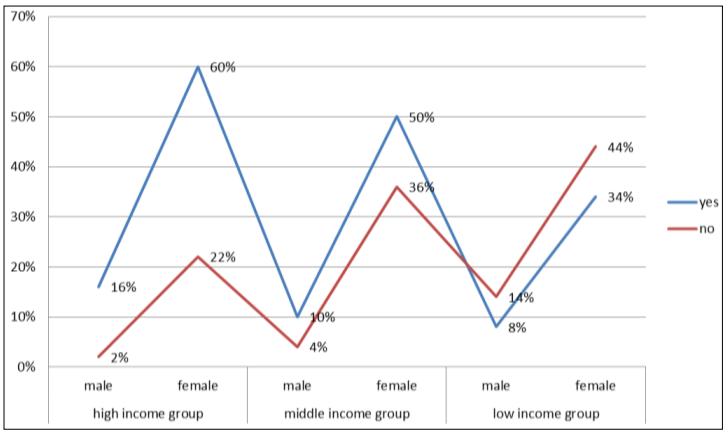


Fig 17: Awareness of Mineral

Table 8: Distribution of respondents according to awareness about Calcium, source and deficiency

Awareness about calcium, source, deficiency	High income group		Middle income group		Low income group	
	Frequency /percent		Frequency /percent		Frequency /percent	
	Men	Women	Men	Women	Men	Women
Yes	9 (18.0)	35 (70.0)	7 (14.0)	33 (66.0)	5 (10.0)	21 (42.0)
No	-	6 (12.0)	-	10 (20.0)	6 (12.0)	18 (36.0)
Total	50 (100.0)		50 (100.0)		50 (100.0)	

Table 8 reveals that distribution of respondents according to awareness about Calcium, source and deficiency. The majority 18.0 per cent male, 70 percent female high income group and 14.0 per cent male, 66.0 percent female middle income group and 10.0 per cent male, 42.0 percent female low income group female were aware about Calcium, source and deficiency. Whereas only 12.0 per cent female high income group and 20.0 per cent female middle income group and 12.0 per cent male, 36 percent female low income group female were unaware about Calcium, source and deficiency in high, middle and low income group. Calcium is needed for so much more than bone heath, though. Eating calcium rich foods makes it possible for our body's to achieve optimal nerve transmission, blood clotting and muscle contraction.

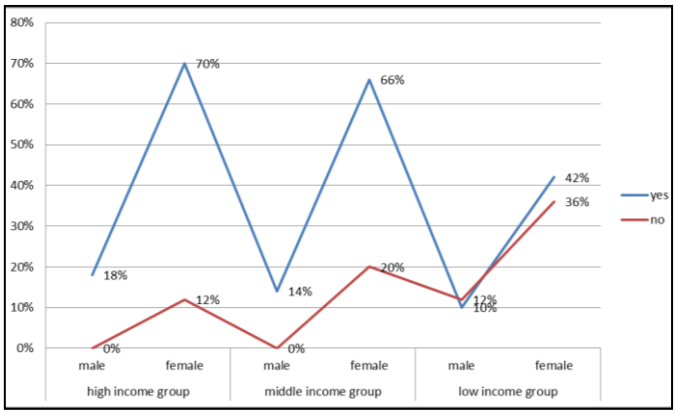


Fig 18: Awareness of Calcium

Conclusion

A poor diet can cause the wasting of kwashiorkor in acute cases, and the stunting of marasmum in chronic cases of malnutrition. Nutritionists typically specialize in obesity and chronic disease. The majority of man and women were about the protein, carbohydrate, fat, vitamin, minerals and calcium, its function, sources and deficiency from high income group and more unaware from middle and low income group.

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