



# **A Study to Analyse the Knowledge Level of Women Beneficiaries of Anganwadi Centres (AWC) Regarding Nutrition in District Budgam of Kashmir Region**

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## **Author's contribution**

*The sole author designed, analysed, interpreted and prepared the manuscript.*

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## **ABSTRACT**

Mother is a main caretaker of their children particularly during the first three to six years of life when they are at the risk of being undernourished. How well she takes care of her children to keep them healthy will depend upon the level of her knowledge regarding childcare and nutrition and various associated factors. As such this study was planned to assess and enhance the extent of knowledge among women beneficiaries of ICDS (Integrated child development Service Scheme) centers of district Budgam of Kashmir region. With an intension to surpass and facilitate the knowledge of women beneficiaries this study was taken up with a sample of 600 registered women beneficiaries of AWCs (Anganwadi centers) out of which 150 were nursing mothers, (NM) 150 were pregnant women (PW) and 300 were mothers of child beneficiaries (MCB having children in the age group 6 months-3years). The tool used for assessing the knowledge level was a self-devised rating scale designed to measure the nutritional knowledge related to importance of different kinds (variety) of foods for adequate/ optimal growth and development of a child. Further, in order to divide the levels of nutritional knowledge as, low, medium and high, Quartiles were calculated. In this way the

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mothers having low level of knowledge (Q1) those who scored up to 4, medium (Q2) whereas, sample women who scored between 5-6 and high level of knowledge (Q3) scored as  $\geq 7$ . The statements were so arranged that a positive answer was specified under score of 1, whereas, a negative statement was granted a score of 0. The scores of positive responses were summed up and the level of knowledge of women beneficiaries was ascertained, a statistically significant variation is observed in levels of nutritional knowledge as per educational qualification and income group among the respondents. It is also seen that respondents from block B.K.Pora and Nagam blocks are having high level of nutritional knowledge in comparison to block Budgam and Chadoora. Among the groups, MCB are having higher level of knowledge in comparison to NM and PW. No significant variation in the levels of nutritional knowledge is seen as per age. It is quite obvious from the study that education of mothers is directly related to knowledge. Educated mother are more knowledgeable than functionally literate mothers.

*Keywords: Knowledge level; mothers; icds; nutritional knowledge; childcare.*

## 1. INTRODUCTION

Apropos to UNESCO [1], it is quite perceptible, that health and nutrition during early childhood is a strong reflection of a country's level of development. It is quite obvious when a child gets proper nutrition in early years of life it will definitely ensure his proper growth and development. And the nutritional status of a person can be determined by the quality and quantity of food intake, type of food he is consuming, how healthy it is and the capability to utilize the nutrients for its metabolic needs with high reproductive level and capability of immune system from conception to adulthood [2]. Amosu et al. [3]. Several underlying factors however, dictate, for example, the quality and quantity of available food that a child will receive such as the household's ability to secure food and other factors such as the level of knowledge of the mother with respect to child nutrition and care [4]. As we are all aware that mother is the solitary caretaker of her child during the first five years of life and it is very important that the mother is up to date with knowledge regarding nutritional needs of the child. Knowledge about dietary needs is essential for good health and overall nutritional status especially when resources are few. Sometimes mothers do not know the importance of variety and balance in the diet and the right amount and types of foods needed by children to meet these dietary needs. It is not necessary that women from well-to-do families with sufficient income can have better and healthy children, unless they have adequate knowledge, their children can't get healthy and nutritious diet. Their children can also be malnourished or undernourished [5]. This is not to say that mothers of malnourished children are necessarily ignorant or that all illiterate mothers whether their children are healthy or not, are

ignorant, but their knowledge level on child health and nutrition can have a major toll on the children's general health. Optimum feeding of infant and young children is one of the main essential determinants of their growth and survival [6]. According to WHO [7], scrutiny it has been observed that infant and young child feeding practices directly affect the nutritional status of children under two years of age and, ultimately, impact child survival. For a healthy and optimum child growth, recommendations are that infants should be put to breast immediately after delivery (within one hour), without giving any pre-lacteal feeds, exclusively breastfed for the first six months of life, and given complementary foods from six months of age with continued breastfeeding up to two years of life [8]. Since the mother is the principle provider of the primary care that her child needs during the first five years of life. Nutritional awareness of mothers plays an important role in the health of children aged 0-5 years. The type of care she provides depends to a large extent on her knowledge and understanding of some aspects of basic nutrition and health care. Mothers' educational level, position, health and nutritional status is central to the quality of life and is a key ingredient of her child's health, nutritional status, behavioral and other aspects of child welfare in developing countries. Nationwide as well as micro studies clearly show that incidence of under nutrition among children fell monotonically with the maternal education. This is of particular concern for India due to a low literacy level of 56 per cent for females (census 2011).

Knowledge of mothers has an important role in the maintenance of nutritional status of the children. Adequate knowledge regarding various aspects of feeding practices during pregnancy

and during infancy is very essential especially among females as they are going to influence the feeding practices of this vulnerable group. The knowledge of child nutrition and caring practices can be expected to have significant bearing on their children nutritional status but conflicting results have been reported in this regard where as some studies [9,10,11] have observed a positive relationship between childhood malnutrition and maternal knowledge and beliefs regarding nutrition.

An estimated 6% of under-five deaths can be prevented by ensuring optimal complementary feeding among which dietary diversity and meal frequency are the most important ones, significantly contributing to the realization of Millennium Development Goal 4 [8].

The lack of dietary diversity is a particularly severe problem among poor populations of developing countries because their diets are predominantly based on starchy staples and often include little or no animal products and few fresh fruits and vegetables. These plant-based diets tend to be low in a number of micronutrients, and the micronutrients they contain are often in a form that is not easily absorbed. Other aspects of dietary quality problems such as high intakes of fat, salt, and refined sugar in developed countries are becoming a concern for developing countries [9, 10]. Child dietary diversity practice is also associated with maternal dietary diversity practice. In the countries where maternal dietary diversity is high, the child dietary diversity practice is also high. In the countries where maternal dietary diversity is low, the child dietary diversity practice is also too low. In addition, the maternal power to control finance (earning money and buying food) is a key challenge to practice dietary diversity [12]. The case is not different in Ethiopia, particularly in Oromia region [11]. Furthermore, Mother's care and knowledge regarding nutrition is a valuable factor in the context of child's health. Since mothers are the primary caregivers of their children and the role of mothers is thus indispensable in determining their children's nutritional status. Receiving proper care and adopting healthy habits from mothers during childhood are of foremost importance in developing good health of children. As such, the present study was conducted to study the influence of maternal nutritional knowledge on the nutritional status and health of under-five children.

## 1.1 Objectives of the Study

The study was undertaken with following objectives.

- To study the level of nutritional knowledge among women beneficiaries of ICDS belonging to rural areas of Budgam district from Kashmir in India.
- To assess the nutritional knowledge of sample respondents in terms of variation across the blocks, Inter-group variation, variation as per qualification, variation as per Age and Family income.

## 2. METHODOLOGY

The sample comprised of 600 registered women beneficiaries of AWCs out of which 150 were nursing mothers, 150 were pregnant women and 300 were mothers of child beneficiaries (age group 6months-3years). Data was collected in the year 2011 from January 2011-June 2011.

### 2.1 The Sample

The sample has been drawn from Kashmir; an area affected by armed conflict has been selected for this study. Among the districts, Budgam has been selected for the study, which has eight blocks and about 593 villages. The total population of the district is 7.35 lacs with gender ratio Of 830/1000 and literacy rate 57.98% (2011). Out of eight blocks of district Budgam, sample was collected from four blocks (Budgam, Nagam, Chadoora and B. K. Pora) in a representative manner. For sampling a list of Anganwadi centers (AWCs) was obtained from the office of Project Officer of ICDS of each block. After obtaining the list of Anganwadi centers from each block, the centers were selected by random sampling technique using lottery method. The maximum number of child beneficiaries in the age group 6months-3years registered in an AWC is 25, which can vary depending upon the population covered under the centre. Out of 25, only 5 mothers of child beneficiaries were purposively selected from the each AWC from the attendance register maintained for this group of beneficiaries. Similarly, the maximum number of nursing mothers and pregnant women registered in an AWC is 06, but the number of both the groups of beneficiaries is not always equal. For the present study a total of 5 women beneficiaries from both the groups were purposively selected from the attendance register maintained by the AWW.

Beneficiaries having children in the age group (0-6months) fall in the category of nursing mothers, whereas, beneficiaries having children in the age group (6months-3years) were considered as mothers of child beneficiaries.

## 2.2 Tools Used

In order to collect the data a self-devised rating scale was designed to measure the level of nutritional knowledge related to importance of different kinds (variety) of foods for adequate/optimal growth and development of a child. The experts in the field of Human Development and Nutrition checked the items for face and content validity. Test-Retest method was used to determine its reliability. This scale was administered on women beneficiaries of children.

## 2.3 Scoring

The responses were so arranged that a positive reply was given a score of 1 whereas the negative response was considered as 0 score. The scores of positive responses were summed up and the level of knowledge of women beneficiaries was ascertained. In order to divide the levels of nutritional knowledge as, low, medium and high, Quartiles were calculated. In this way low level of knowledge (Q1) scored up to 4, medium (Q2) scored between 5-6 and high level of knowledge (Q3) scored as  $\geq 7$ . This scale was administered to find out the knowledge level of Kashmiri sample women and to identify the gap area in knowledge. Thereafter, on the basis of gap areas, intervention was planned.

## 3. RESULTS AND DISCUSSION

### 3.1 Assessment of Nutritional Knowledge of Respondents (Through Rating Scale)

Nutritional knowledge affects the quality of food intake and also healthy choices of purchased food. Advancement of individual's nutrition knowledge provides new information, which may stimulate changing of attitude, and subsequently result in encouragement of better dietary practices. Similarly good nutritional knowledge of mothers/ women can lead to adequate nutritional intake during pregnancy as well as during lactation, which can result in healthy birth outcomes among children and healthy mothers

too. Assessment of nutritional knowledge of sample respondents in terms of variation across the blocks, Inter-group variation, variation as per qualification, variation as per Age and Family income was undertaken in the present study with the help of a self-devised rating scale. This scale was administered on sample respondents at the time of data collection. The results based on that data have been presented in this section.

### 3.2 Variation in Level of Nutritional Knowledge Across Block

It is observed that respondents from B.K.Pora and Nagam blocks (Fig. 1) have high level of nutritional knowledge by 26.6% and 26% respectively. However, about one third of Kashmiri sample women in Budgam, Chadoora and Nagam were having low level of nutritional knowledge. Such variation in nutritional knowledge across the blocks among the sample women was highly significant ( $p < 0.01$ ).

### 3.3 Inter-Group Variation in Level of Nutritional Knowledge

Fig. 2. Shows that PW and NM have low level of nutritional knowledge (8% and 8.6%), whereas, MCB were having high level of knowledge. No inter group significant difference in level of knowledge was observed ( $p > 0.05$ ).

### 3.4 Variation in Level of Nutritional Knowledge as per Qualification

Fig. 3. Reveals that majority of respondents belonging to all educational groups were having medium level of knowledge about various aspects of nutritional knowledge rating scale. Although improvement in education did reveal a progress towards high level, the progression was not consistent. There was statistically a significant variation as per qualification in level of knowledge among women beneficiaries observed ( $p = 0.01$ ).

### 3.5 Variation in Level of Nutritional Knowledge as per Family Income

The data in Fig. 4 present that Kashmir beneficiaries from sample blocks falling in the income group 7001-13000 were having medium level of knowledge (76.9%), whereas, those

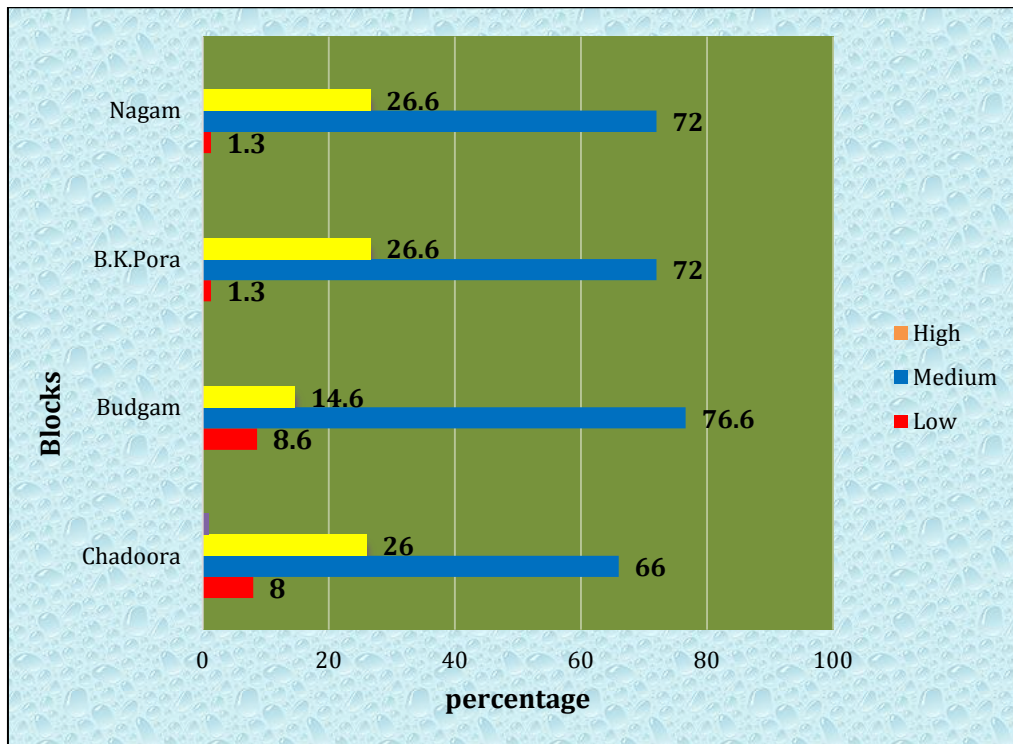


Fig. 1. Variation in level of knowledge across the blocks (*highly significant at  $\chi^2$  27.1 df 6*)

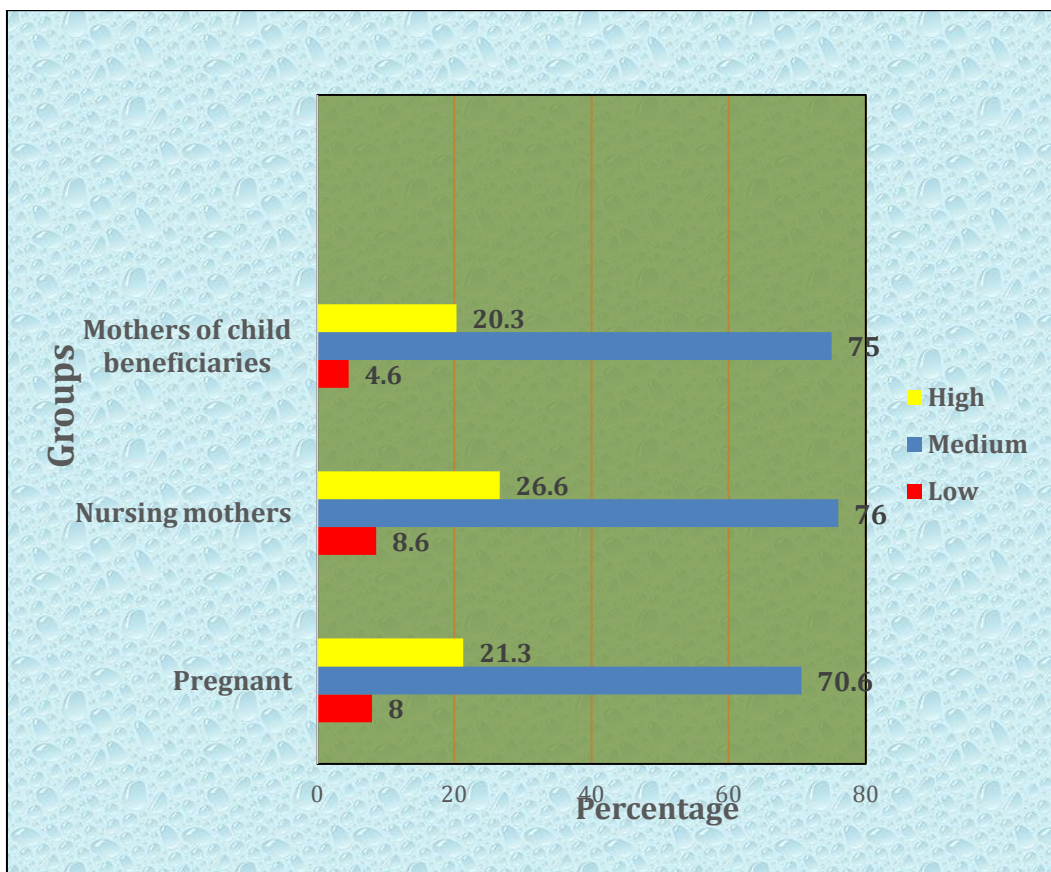


Fig. 2. Inter-group variation in level of nutritional knowledge (*Insignificant at  $\chi^2$  5.2, df 4*)

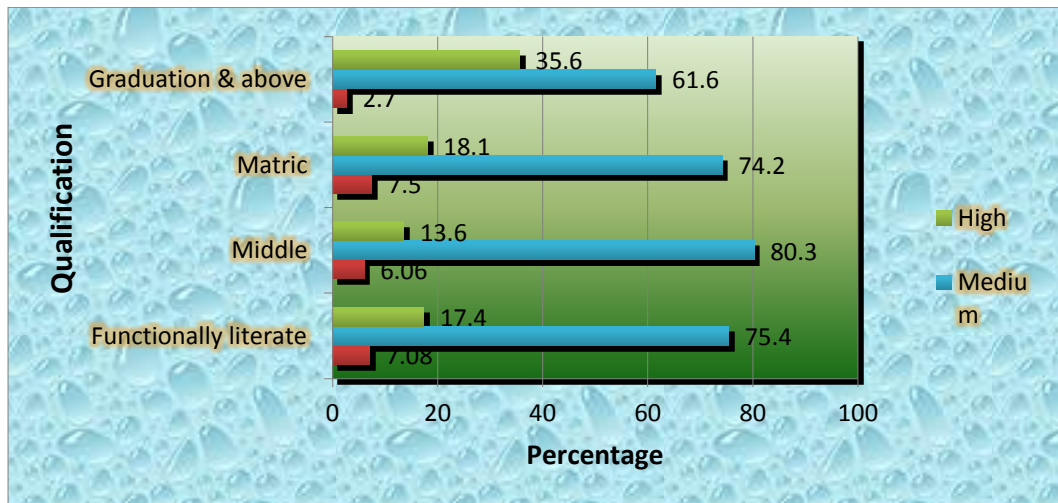


Fig. 3. Variation in level of nutritional knowledge as per qualification (In percents significant  $\chi^2$  15.7, df 6)

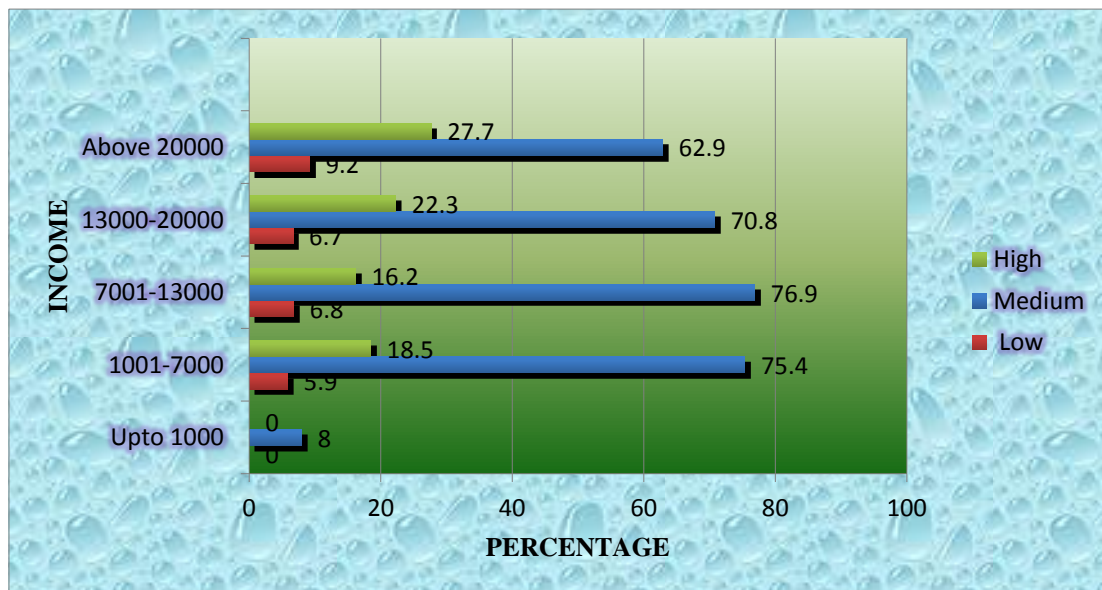


Fig. 4. Variation in level of nutritional knowledge as per family income (In percents insignificant at  $\chi^2$  27.9, df 8)

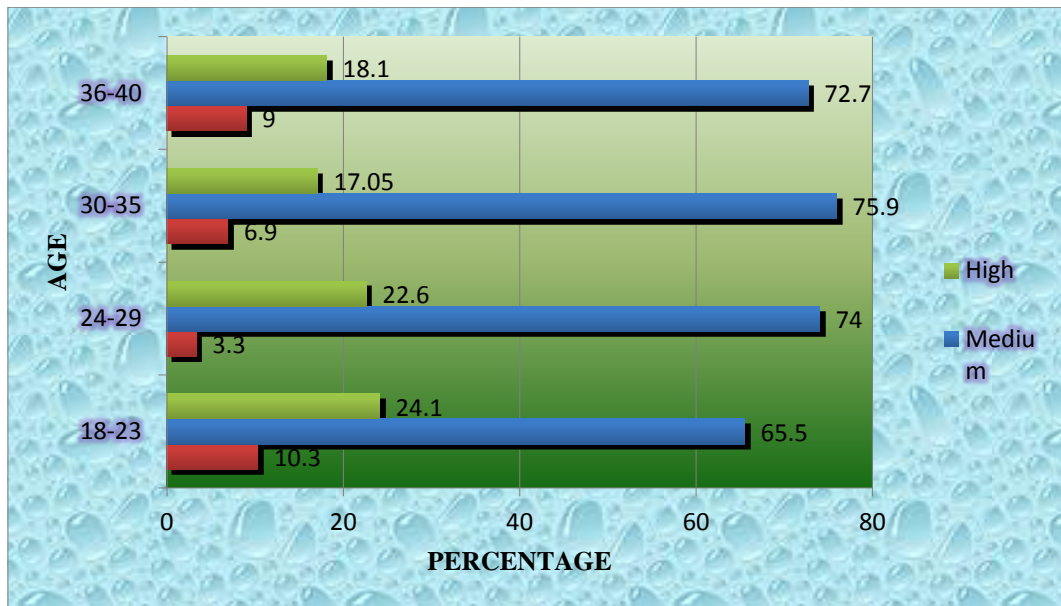
sample beneficiaries belonging to income group Above 20,000 observed higher level of nutritional knowledge by 27.7%. This means that as the family income increases the level of nutritional knowledge also increases. Insignificant differences in variation of knowledge level as per family income among the beneficiaries was observed ( $p > 0.05$ ).

### 3.6 Level of Nutritional Knowledge as per Age

Similarly, Fig. 5 reveals that age of beneficiaries again had no significant impact on level of

nutritional knowledge, as women respondent belonging to the age group 30-35 years were having low level of knowledge by 46.1% in comparison to those women respondent falling in the age group 24-29 years, having high level of knowledge by 35.3%. No significant difference seen in knowledge level among the respondents ( $p > 0.05$ ). Similar type of study was conducted in Yildirim Beyazit University, Ankara, Turkey in the year 2016 revealing that the more adults' ages and educational status increased, the more nutritional knowledge level they had; also gender, age, educational status, employment status and marital status affected





**Fig. 5. Level of nutritional knowledge as per age (in percents insignificant at  $\chi^2$  7.54, df 6)**

adults' positive nutritional behaviors [13]. In another study similar in nature conducted in India at Bagalkot area of Karnataka it was observed that the 41% of mothers had satisfactory knowledge level, whereas, 36% mothers were having inadequate knowledge about and 23% were had adequate knowledge. There is significant association between knowledge with age, educational status of mother, occupation of mother, religion, type of family, total number of under fives in the family, monthly income of the family, and place of residence [14].

#### 4. CONCLUSION

The results presented in this study pertaining to level of knowledge among the Kashmiri women under study reveals that majority of women in Kashmir have medium level of nutritional knowledge. Across the blocks, a significant difference in level of nutritional knowledge was found among sample women. However, in context to qualification of Kashmiri sample women, majority of functionally literate women were having low level of nutritional knowledge while as, educated women were having high level of nutritional knowledge. A significant difference with respect to education was found. No significant difference related to nutritional knowledge was observed with respect to other aspects of family income and age. So, it is evident that if mothers are educated and have sufficient nutrition knowledge, it can help in

improving the nutritional status of their children. This implicit that, all mothers inarguably all the women do need to be provided nutrition education with proper intervention after identifying the gap areas that will have a considerable impact on the community. The obligation for such education for women is consequently urgent and great in rural areas of Kashmir.

#### CONSENT

As per international standard or university standard guideline participant consent has been collected and preserved by the authors.

#### COMPETING INTERESTS

Author has declared that no competing interests exist.

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