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Aparajita Kishore
Research Scholar,
Department of Home Science,
B.R.A. Bihar University,
Muzaffarpur, Bihar, India

Dr. Sushila Singh
Associate Professor,
Department of Home Science,
M.D.D.M. College Muzaffarpur,
B.R.A. Bihar University,
Muzaffarpur, Bihar, India

Socio-economic and psychological factors associated with the packed lunch

Aparajita Kishore and Dr. Sushila Singh

Abstract
Assessment of the Impact of socio-economical factors on packed lunch is not only serves as a means to evaluate the health and nutritional status of children, but also provides an indirect measure of the quality of life of the entire population. The respondents of the study were 200 students grade 1-8 in 5 private schools of Muzaffarpur district of Bihar. Nutrients of lunch box were calculated through food composition table from the standard of ICMR & NIN (2010). According to the data healthy lunch boxes were found more in male respondents (70.10 percent). More than half (53.5 percent) of the female children bring unhealthy lunch box in the school. Near about half (46.39 percent) of the general students were carry healthy lunch boxes. More than half of the children were carry unhealthy lunch. Children with healthy lunch boxes were found in 47.42 percent in Hindu, 32.99 percent in Muslim and 12.37 percent in Sikh. Significance relationship were observed between nutritional value of lunch of the children with gender, caste, Mother's education, size of family, types of family, and economical condition.

Keywords: Factor, children, packed lunch

Introduction

Children need food to grow. The food that children eat is digested and absorbed in her/his body. The diet provides nutrients which are required in varying amounts in different parts of the body. These nutrients are utilized by the body for performing specific functions. This means that good nutrition is the basic component of good health. When children's diet provides the nutrients in incorrect amounts, either very less or in excess of what is required, it results in an imbalance of nutrients in his/her body. This condition is responsible for various diseases, slow or no growth of body and it can even lead to death.

School lunch is measure for improving the health and nutrition of children. During recent years, a great majority of schools in all western countries and Japan have been providing nutritionally balanced lunches for children. In India only a beginning in this direction has been made recently.

Assessment of the Impact of socio-economical factors on packed lunch is not only serves as a means to evaluate the health and nutritional status of children, but also provides an indirect measure of the quality of life of the entire population. Children's lunch box provides one-third of the nutritional requirement of their body, while packing their lunch box, parents have to pay full attention that all the essential nutrients can be obtained by the child's body. In India, there is a great disparity in food and lifestyle of people according to their social, geographical and economical status, it has been found in many studies that people of higher socioeconomic status are more likely to have healthy eating habits, whereas people with low socioeconomic status have unhealthy eating habits. Therefore, both social inequality and the quality of diet, as reflected by healthy dietary behaviours, are areas of active public health concern, because these factors also affect the lunch boxes of the children as well as his/her health.

Keeping in view the above said, the present study was carried out in Muzaffarpur district to assess the impact of socio-economical and psychological factors on packed lunch.

Methodology

The respondents of the study were 200 students grade 1-8 in 5 private schools (sunshine prep high school, DAV Public school, St. Joseph,s Senior Secondary school, Prabhat Tara, and Holy Mission Sr. Sec. school) of Muzaffarpur district of Bihar.

Corresponding Author:
Aparajita Kishore
Research Scholar, Deptt. of Home Science, B.R.A. Bihar University, Muzaffarpur, Bihar, India

Through interview schedule technique information related to their socio-demographic details and dietary intake through lunch box were collected. Nutrients of lunch box were calculated through food composition table from the standard of ICMR & NIN (2010). The results were compared with RDA given by ICMR (2020) and on the basis of RDA packed lunch were divided into two category i.e. health lunch boxes and unhealthy lunch boxes.
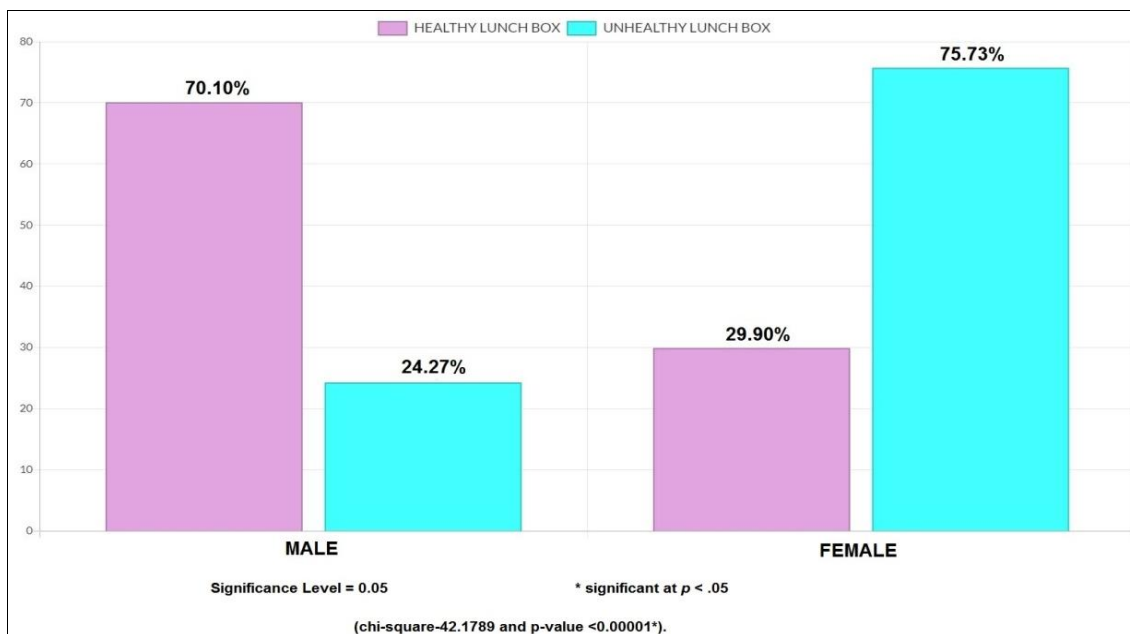
Results & Discussion

Fig 1: Packed lunch on the basis of sex

Figure-1 revealed the data on packed lunch of the children on the basis of sex. According to the data healthy lunch boxes were found more in male respondents (70.10 percent). More than half (53.5 percent) of the female children bring unhealthy lunch box in the school. Significance relationship was observed between sex and types of lunch boxes of the school going children (chi-square-42.1789 and p-value <0.00001).
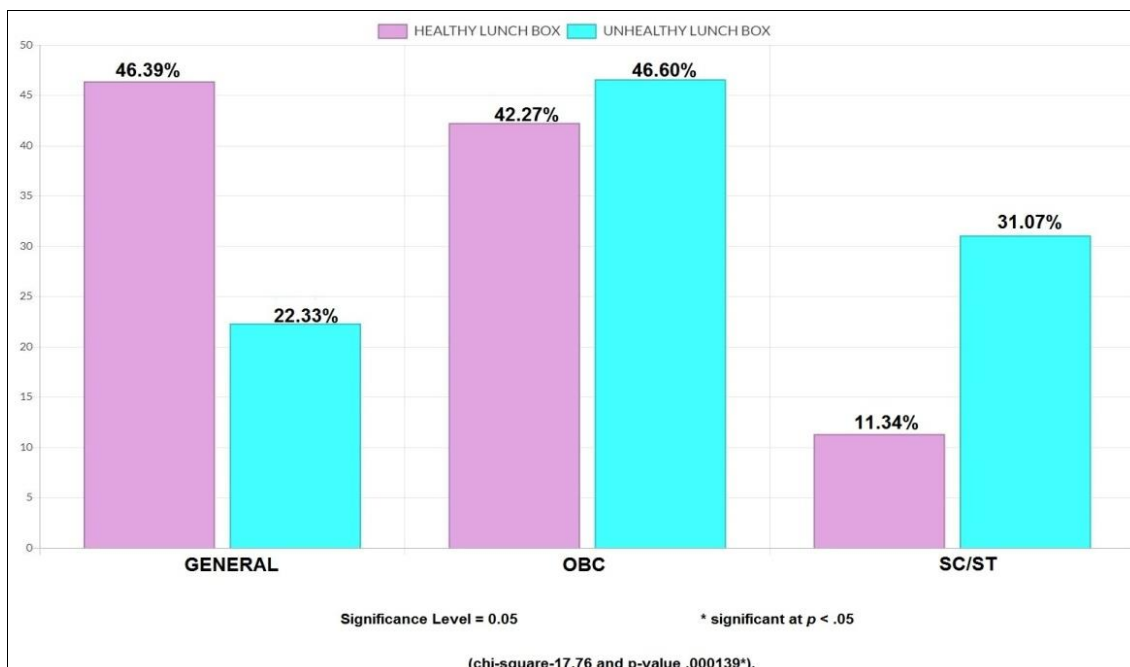

Fig 2: Packed lunch on the basis of caste

Figure-2 revealed the data on packed lunch of the children on the basis of caste composition. According to the data unhealthy lunch boxex were found more in OBC (46.6 percent) and SC/ST (31.07 percent). Near about half (46.39 percent) of the general students were carry healthy lunch boxes. Significance relationship was observed between caste and types of packed lunch of the children (chi-square-17.76 and p-value .000139).
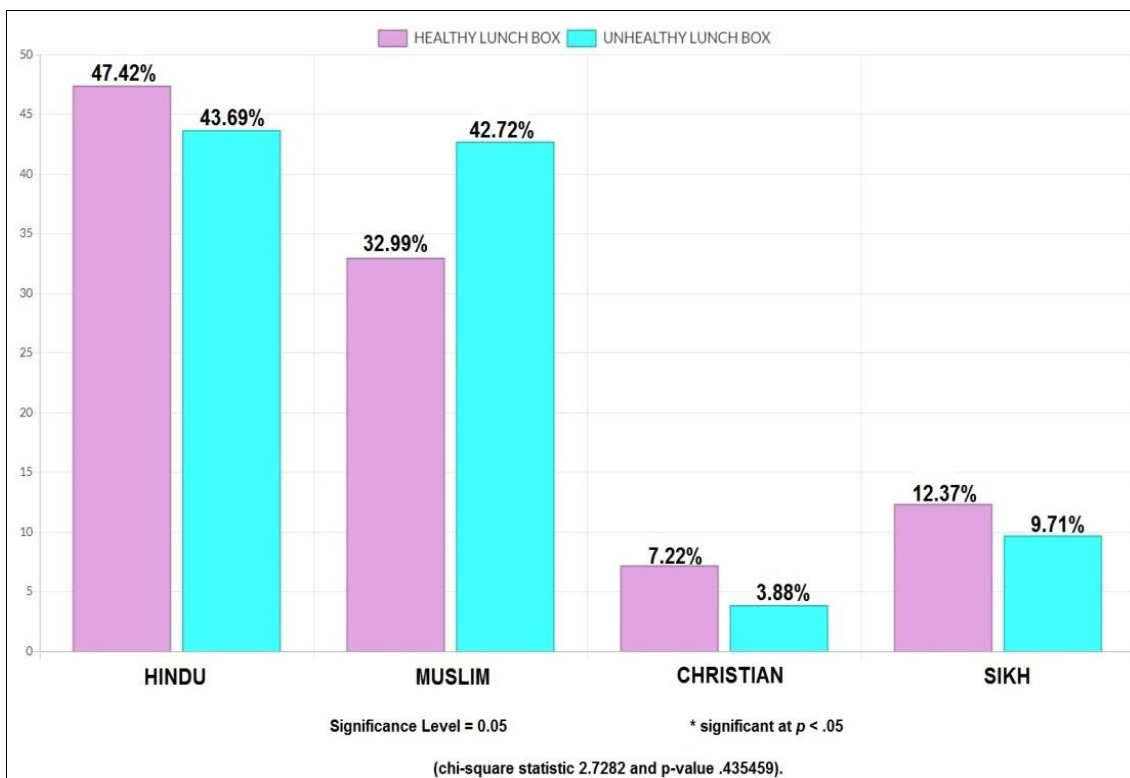
Fig 3: Packed lunch on the basis of religion

Figure-3 revealed the data on packed lunch of children on the basis of religion. According to the data more than half of the children were carry unhealthy lunch. Children with healthy lunch boxes were found in 47.42 percent in Hindu, 32.99 percent in Muslim and 12.37 percent in Sikh. Significance relation was not observed between religion and types of the paced lunch of the children (chi-square statistic 2.7282 and p-value .435459).
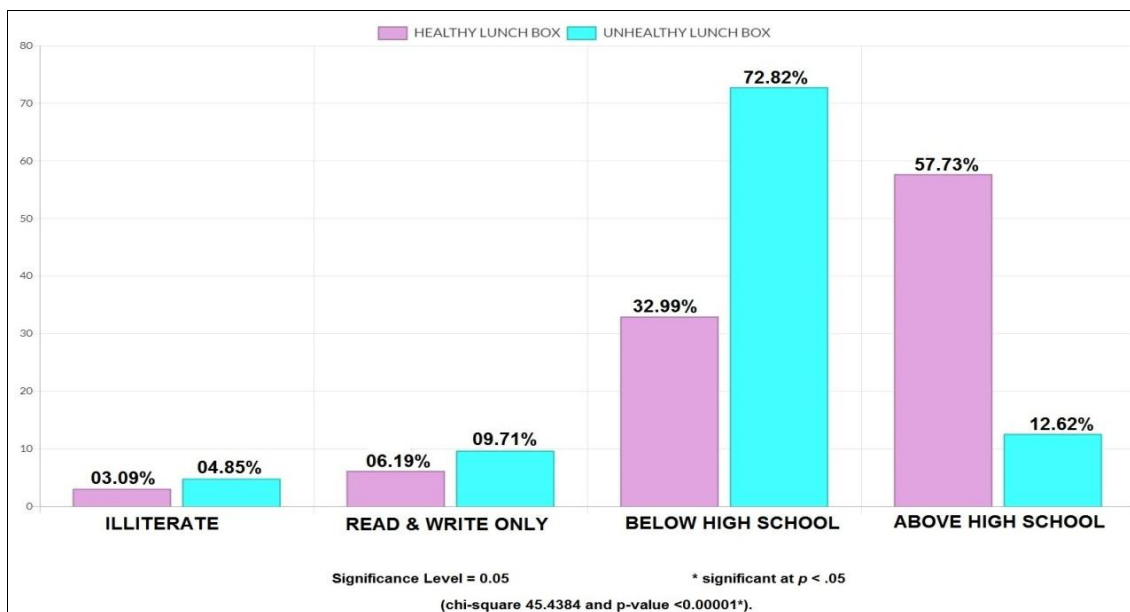

Fig 4: Packed lunch on the basis of mother's education

Figure-4 represents the data on lunch boxes of children on the basis of mother education. According to the data healthy lunch boxes were seemed more in children whose mothers got high school or above high school education. It was found that the majority of the children (72.82 percent) whose mother had below high school education were carry unhealthy lunch boxes. There is strong correlation was observed between nutritional status of the children and mother's education (chi-square 45.4384 and p-value <0.00001).
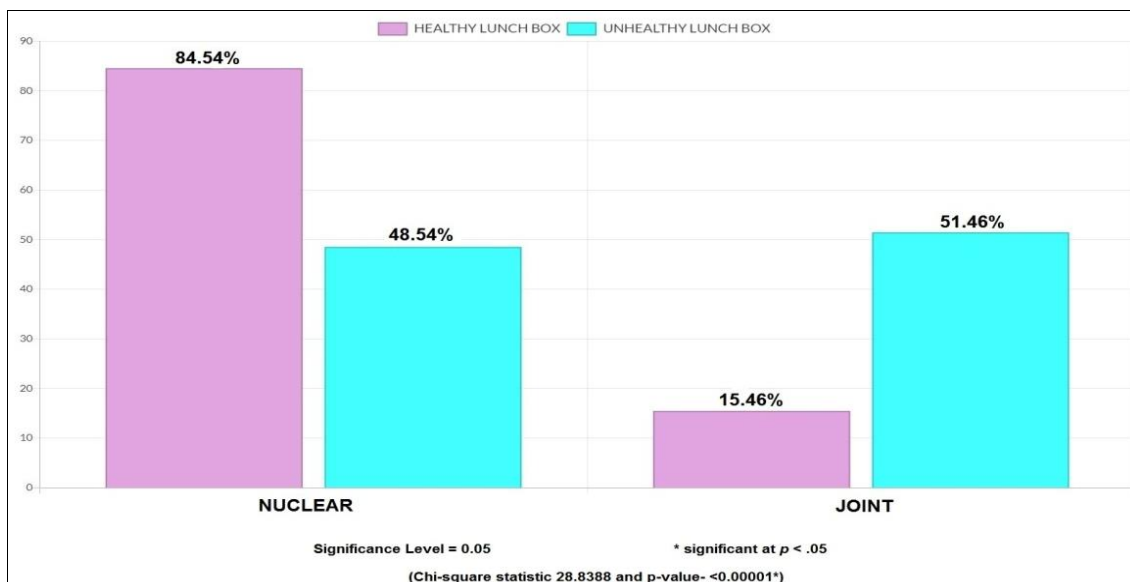
Fig 5: Packed lunch on the basis of family type

Figure-5 showed the data on packed lunch of children on the basis of types of family. 84.54 percent of children in nuclear family and 15.46 percent of the children in joint families were carried healthy lunch boxes. While 48.54 percent of children in nuclear families and 51.46 percent of the children in joint families carry unhealthy lunch boxes. Data also showed that the types of family were an important factor for lunch boxes of the children. Chi-square statistic 28.8388 and p-value-<0.00001 also indicates that there is a strong significance relationship between lunch boxes and types of family of children.
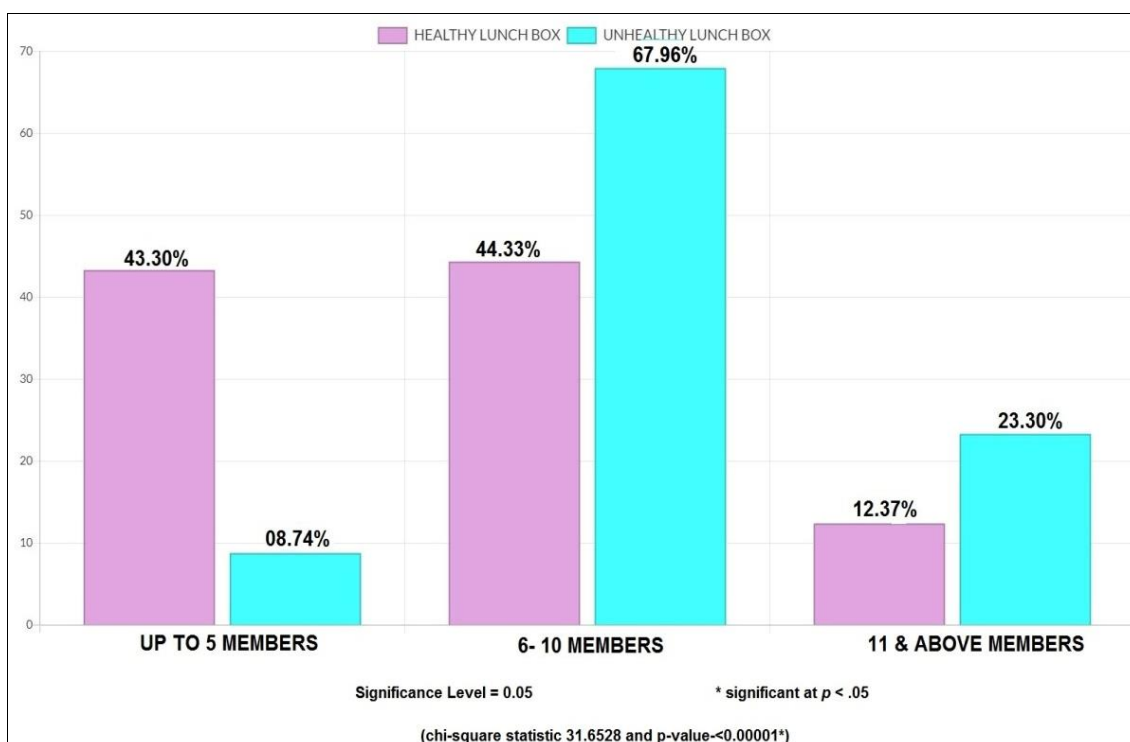

Fig 6: Packed lunch on the basis of family size

Figure-6 represents the data on types of lunch box of children on basis of size of family. According to the data unhealthy lunch boxes were found more (67.96 percent) in children who had 6-10 members in family, while 23.30 percent of the children with more than 11 family members were also carried unhealthy lunch boxes. In category of healthy lunch boxes near about half (44.33 percent) of the children had 6-10 family members while similarly 43.30 percent of them also had up to 5 members in her/his family. The chi-square statistic 31.6528 and p-value-<0.00001 showed the strong correlation between types of lunch boxes and size of family of the children.
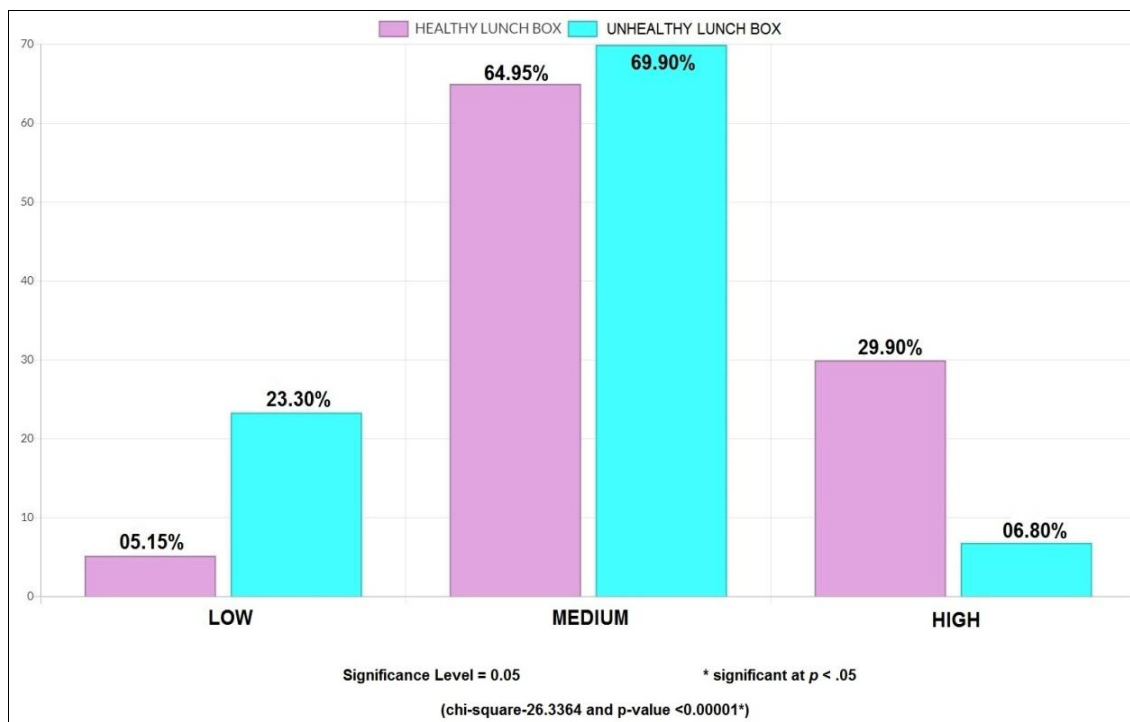
Fig 7: Packed lunch on the basis of economical condition of family

Figure-7 revealed the data on types of lunch boxes of children on the basis of family income. According to the data unhealthy lunch boxes of children were found more in medium income group. In comparison of the entire mentioned income group high income group showed healthy lunch boxes of the children than other income groups. Significant relationship was observed between economical status of the family and types of lunch boxes of the children (chi-square-26.3364 and p-value <0.00001)

Conclusion
Significance relationship were observed between nutritional value of lunch of the children with gender, caste, Mother's education, size of family, types of family, and economical condition so this study consistent with study of Srivastava A, et. al. (December 2010 to April 2011) in urban slums of Bareilly, Uttar Pradesh which were found that mother's education, economical condition of family and the number of family members have a strong co-relation with the nutritional status of the children.

Recommendations
Nutrition education should not only address women but the all the members of the family, for better result nutrition education should focus on communication for behavior change of the family. Nutrition related activities need to be based on qualitative research that has identified cultural and institutional barriers to good nutrition, harmful behaviours and attitude towards food, food choice and eating behaviour of the children.

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