



ASSOCIATION OF BREAKFAST CONSUMPTION PATTERN OF PRESCHOOL CHILDREN WITH FAMILY PROFILE AND INCOME

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Abstract: Breakfast consumption of children is of public health concern, since it makes an important nutritional contribution to overall dietary quality for children. Yet breakfast is most commonly missed than any other meal. A total of 565 preschool children attending anganwadis were selected randomly from Dharwadtaluk, Karnataka, India. Breakfast consumption pattern and family profile of preschool children was assessed by interviewing the mothers of the children, personally using questionnaire. Majority of mothers in urban area were house wives and not involved in gainful employment (84.44 %) compared to rural mothers (65.20 %). Higher per cent of rural families living in joint family than urban. In both rural and urban areas almost equal per cent of families had annual income of less than 10000 rupees (49.6 and 47.30 %, respectively) followed by 10000-30000 (44.4 and 45.70 %, respectively). Significant association was found with breakfast consumption pattern of preschool children with occupation of mothers as well as family type. No significant differences was observed with income of the family. Family type and occupation of mothers affect the breakfast consumption pattern of preschool children.

Key words: breakfast consumption pattern, preschool.

Introduction:

Breakfast skipping is increasingly wide spread among children, adolescents and adults. Breakfast consumption of children is of public health concern (Marika, 2003), since it makes an important nutritional contribution to overall dietary quality for children. Yet breakfast is most commonly missed than any other meal (Dweyer *et al.*, 2001). Breakfast skippers are those who eat breakfast about once in week or less often and those who never eat breakfast (Siega-Riz *et al.*, 1998). This can pose serious problems for a child's daily nutritional intake. It provides fuel to begin the day. Breakfast consumption is associated with positive outcomes for diet quality, micronutrient intake, weight status and lifestyle factors. Breakfast has been suggested to positively affect learning in children in terms of behavior and school performance. Eating breakfast improves the overall quality and nutrient intake of the diet. Conversely, breakfast skippers may not make up for missed nutrients at other meals during

the day whether they are children, adolescents or adults.

Children are wealth of any nation as they constitute one of the important segments of the population. Childhood is a critical period in which dietary and lifestyle patterns are initiated, and these habits can have important immediate and long-term implications (Murphy, 1998). The foundation of good health and sound mind is laid during preschool, so it is a basic milestone in life of an individual and responsible for many changes that may take place during later life.

Nutrition plays an important role in health and successful education of school children. Malnutrition is accompanied with Carelessness and reducing thoughts and educational progress among school children. In addition to that the social-economic development in the society is indirectly related with nutritional status of the community. Hence, the study was undertaken with the following objectives.

Objectives of the study:

- a. To assess the association of breakfast pattern of preschool children with family profile
- b. To assess the association of breakfast pattern of preschool children with socio economic status.

Methodology: The study was conducted in rural and urban areas of Dharwad taluk, Karnataka, India during 2013-2015. A total of 13 *anganwadis* were contacted, total of 565 preschool children attending *anganwadis* were selected randomly. Breakfast consumption pattern and family profile of preschool children was assessed by interviewing the mothers of the children, personally using questionnaire developed for the purpose.

Statistical tool used: To assess the association of breakfast pattern of preschool children with family profile, 'Pearson Chi-square test' was used.

Results and discussion:

General information of the mothers of the preschool children presented in Table 1. It was observed that majority of mothers in urban area were housewives and not involved in gainful employment (84.44 %) compared to rural mothers (65.20 %). In rural area, 17.20 and 15.20 per cent of mothers were involved in farming and working as agricultural labours, respectively. Few per cent of mothers were working as non farmlabourer (0.40 %) and two per cent were involved in service in rural locality. While, in urban area 7.30, 3.49 and 3.18 per cent of mothers were working as non farmlabourer, agricultural labourer and involved in service, respectively. Very few per cent of mothers in urban area were involved in farming (1.27 %). Less than one percent of mothers in urban area were involved in petty business (0.63 %) like selling vegetables. Irrespective of locality higher per cent of mothers were housewives (75.93 %). Less than ten per cent of them were agricultural labourer (8.67 %), involved in farming (8.32 %), working as non-farm labourer (4.25 %) and service (2.66 %). Less than one percent of mothers were involved in petty business (0.35 %).

About 60 per cent of families in rural areas living in joint family set up while in urban locality nearly equal per cent of them dwelling in nuclear and

joint family set up (50.80 and 49.20 %, respectively). Irrespective of locality 42.30 and 57.52 per cent of subjects were living in joint and nuclear type of family, respectively. Very less per cent (0.18 %) were having extended family set up.

In both rural and urban areas almost equal per cent of families had annual income of less than 10000 rupees (49.6 and 47.30 %, respectively) followed by 10000-30000 (44.4 and 45.70 %, respectively) and less than ten per cent of families had an annual income of 30000-60000 (6.0 and 6.30 %, respectively). None of the families in rural area were getting around income of Rs 60000-90000 or more, while 0.60 per cent of urban families were having annual income of Rs 60000-90000. Irrespective of locality majority (48.32 %) of families subsisted on an annual family income of less than Rs 10000 followed by Rs 10000-30000 (45.13 %). Thirty five families had an annual income of Rs 30000-60000 (6.19 %) and only two families had an annual income of Rs 60000-90000.

Breakfast consumption pattern of preschool children as influenced by family occupation of the mothers is depicted in Table 2. There was a significant association between breakfast consumption and occupation of the mothers in both rural and urban areas. Preschool children of housewives in rural (57.10 %) and urban (45.50 %) area consumed breakfast regularly. However, children of those involved in service (100 % rural and 40 % urban) and business (50 % urban) consumed breakfast irregularly. Irregular consumption of breakfast in the present study can be reasoned to the work pattern of the mother, if the mother was having younger child to be looked after, living in large family the child gets neglected, tends to be sent to school without consuming food, assuming that *anganwadi* food is available to the child at school. The present study has revealed that women not engaged in gainful employment, those in farming either as labourer or own land tend to feed their children prior to sending them to school (Table 2).

Table 3 presents the data on breakfast consumption pattern of preschool children as

influenced by family type. In rural locality, higher per cent of children living in joint family had consumed breakfast always (69.09%), whereas those living in nuclear type of family had consumed breakfast sometimes (45.24%). Similar trend was noticed in the urban children. There was a significant association between breakfast consumption pattern of preschool children and family type. This could be reasoned that preschool children are still dependent on their caretakers to feed them. Customarily mothers take care and ensure that child consumes food before stepping out, more so if they are living in joint family. In the present study, higher per cent of both rural and urban preschool children living in joint family consumed breakfast regularly (Table 3). Joint family results in division of labour, thus mothers find time to feed the child. Breakfast

consumption pattern of preschool children as influenced by income of the family is reported in Table 4. There was no significant association between family income and breakfast consumption pattern of preschool children. Family income did not affected the breakfast consumption pattern.

Conclusion:

Higher per cent of the rural respondents were living in joint family set up (66%) whereas half of urban counterparts living in nuclear type of family (50.80%). Majority of mothers in urban area were house wives and not involved in gainful employment (84.44%) compared to rural mothers (65.20%). About 50 per cent of the rural families were having an annual income of less than 10,000 rupees while 45.70 per cent of urban families were having an annual income of 10,000-30,000 rupees.

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Table 1. General information of the mothers of pre-school children N = 565

| Variables | Classification | Rural (n=250) | | Urban (n=315) | | Total | |
|---------------------------|-----------------------|---------------|-------|---------------|-------|-------|-------|
| | | n | % | n | % | N | % |
| Occupation | House wife | 163 | 65.20 | 266 | 84.44 | 429 | 75.93 |
| | Agricultural labourer | 38 | 15.20 | 11 | 3.49 | 49 | 8.67 |
| | Non-farm labourer | 1 | 0.40 | 23 | 7.30 | 24 | 4.25 |
| | Farming | 43 | 17.20 | 4 | 1.27 | 47 | 8.32 |
| | Service | 5 | 2.00 | 10 | 3.18 | 15 | 2.66 |
| | Petty Business | - | - | 2 | 0.63 | 2 | 0.35 |
| Family type | Joint | 165 | 66.00 | 155 | 49.20 | 239 | 42.30 |
| | Nuclear | 84 | 33.60 | 160 | 50.80 | 325 | 57.52 |
| | Extended | 1 | 0.4 | - | - | 1 | 0.18 |
| Annual Family Income (Rs) | <10000 | 124 | 49.6 | 149 | 47.30 | 273 | 48.32 |
| | 10000-30000 | 111 | 44.4 | 144 | 45.70 | 255 | 45.13 |
| | 30000-60000 | 15 | 6 | 20 | 6.30 | 35 | 6.19 |
| | 60000-90000 | - | - | 2 | 0.60 | 2 | 0.35 |

Table 2: Breakfast consumption pattern of preschool children as influenced by occupation of mothers N=565

| Locality | Occupation of mothers | Breakfast consumption pattern | | | | Total | Chi - square |
|---------------|-----------------------|-------------------------------|---------------|---------------|---------------|-------|--------------|
| | | Always | Often | Sometimes | Rarely | | |
| Rural (n=250) | House wife | 93 (57.10) | 20 (12.30) | 41 (25.20) | 9 (5.5) | 163 | 36.52** |
| | Non farmlabour | 1 (100.00) | - | - | - | 1 | |
| | Agricultural labour | 19 (50.00) | 7 (18.40) | 8 (21.10) | 4 (10.50) | 38 | |
| | Farming | 31 (72.10) | 5 (11.60) | 7 (16.30) | - | 43 | |
| | Service | - | - | - | 5 (100.00) | 5 | |
| Urban (n=315) | House wife | 151 (45.50) | 50 (18.80) | 43 (16.20) | 22 (8.30) | 266 | 25.25* |
| | Non farmlabour | 12 (54.50) | 6 (27.30) | 2 (9.10) | 2 (9.10) | 22 | |
| | Agricultural labour | 5 (45.50) | 1 (9.10) | 2 (18.20) | 3 (27.30) | 11 | |
| | Farming | 1 (25.00) | - | 1 (25.00) | 2 (50.00) | | |
| | Service | 6 (60.00) | - | 4 (40.00) | - | 10 | |
| | Business | - | 1 (50.00) | 1 (50.00) | - | 2 | |

*Significant @ 5 %, ** Significant @ 1 %, values in the parentheses indicates per cent 1-Always (6-7 days /week), 2-Often (4-5 days/week), 3-Sometimes (2-3 days/week), 4-Rarely (0-1 days/week)

Table 3: Breakfast consumption pattern of preschool children as influenced by family type N=565

| Locality | Family type | Breakfast consumption pattern | | | | Total | Chi - square |
|---------------|-------------|-------------------------------|---------------|---------------|---------------|-------|--------------|
| | | Always | Often | Sometimes | Rarely | | |
| Rural (n=250) | Joint | 114 (69.09) | 27 (16.37) | 18 (10.91) | 6 (3.63) | 165 | 43.30** |
| | Nuclear | 32 (38.09) | 6 (7.14) | 38 (45.24) | 8 (9.52) | 84 | |
| | Extended | 1 (100.00) | - | - | - | 1 | |
| Urban (n=315) | Joint | 115 (74.19) | 23 (14.84) | - | 17 (10.97) | 155 | 72.65** |
| | Nuclear | 61 (38.12) | 36 (22.50) | 52 (32.50) | 11 (6.88) | 160 | |

Values in the parentheses indicates per cent, ** Significant @ 1 %, 1-Always (6-7 days /week), 2-Often (4-5 days/week), 3-Sometimes (2-3 days/week), 4-Rarely (0-1 days/week)

Table 4: Breakfast consumption pattern of preschool children as influenced by income of the family N=565

| Locality | Income of the family | Breakfast consumption pattern | | | | Total | Chi - square |
|---------------|----------------------|-------------------------------|---------------|---------------|-------------|-----------------|--------------|
| | | Always | Often | Sometimes | Rarely | | |
| Rural (n=250) | < 10000 | 78 (62.90) | 15 (12.09) | 28 (22.59) | 3 (2.42) | 124 (100.00) | 5.63NS |

| | | | | | | | |
|------------------|-------------|---------------|---------------|---------------|--------------|-----------------|--------|
| | 10000-30000 | 60 (54.05) | 16 (14.42) | 25 (22.53) | 10 (9.00) | 111 (100.00) | |
| | 30000-60000 | 9 (60.00) | 2 (13.33) | 3 (20.00) | 1 (6.67) | 15 (100.00) | |
| Urban (n=315) | < 10000 | 87 (58.39) | 24 (16.10) | 25 (16.78) | 13 (8.73) | 149 (100.00) | 4.89NS |
| | 10000-30000 | 79 (54.86) | 31 (21.53) | 22 (15.28) | 12 (8.33) | 144 (100.00) | |
| | 30000-60000 | 9 (45.00) | 4 (20.00) | 4 (20.00) | 3 (15.00) | 20 (100.00) | |
| | 60000-90000 | 1 (50.00) | - | 1 (50.00) | - | 2 (100.00) | |

NS- non significant, values in the parentheses indicates per cent 1-Always (6-7 days /week), 2-Often (4-5 days/week), 3-Sometimes (2-3 days/week), 4-Rarely (0-1 days/week)