

Association of social factors of the parents with the feeding practices of the child – A cross-sectional study in Bharatpur, Rajasthan

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ABSTRACT

Objective: The objective of the study was to determine the association of social factors of the parents with the feeding practices of children aged between 2 and 5 years. **Materials and Methods:** It was a cross-sectional study conducted among 162 households of 182 children aged 2–5 years in Bharatpur, Rajasthan. The data were collected through a door-to-door survey. A general set of questionnaire was developed to support the study. National Family and Health Survey-IV was used to calculate the socioeconomic status of the family. **Results:** Breastfeeding initiation among all the children was universal. Almost all the children were breastfed up to 6 months and a small proportion of children were breastfed to 24 months. Education status and lifestyle of parents showed significant effect on the duration of breastfeeding of the child ($p < 0.05$), while lifestyle of the parents also had an impact on the age at which supplement food was given to the child ($p < 0.05$). **Conclusion:** The present study showed the effective association of lifestyle of parents with the feeding practices of the children.


Key words: Breastfeeding, Feeding practices, Lifestyle, Parents, Social factors

Good health begins before we are even born and lasts a lifetime. Maternal health is defined as the physical, mental, and social well-being of women during pregnancy and delivery of the child. Among the 150 million women who become pregnant each year, it has been estimated that more than 600,000 die annually from pregnancy-related causes [1]. Consequently, women in rural areas of India have few options for seeking maternal health care [2]. One of the important goals of the National Rural Health Mission (NRHM) is to provide access to improved health care at the household level through female Accredited Social Health Activist (ASHA), who acts as an interface between the community and the public health system. The ASHA acts as a bridge between the ANM and the village, and is accountable to the panchayat. She helps promote referrals for universal immunization, escort services for RCH, construction of household toilets, and other health-care delivery programs [3].

Maternal health and child care is related to a varied variety of factors that can actually influence the well-being of mother as well as the growth and development of the child. These factors can also influence the relative care of the child by the family members as well as the kind of awareness there is within the family to provide better care of the child [3]. The impact of social conditions on

child health was explicitly recognized at least by the middle of the 19th century, when Engels documented the higher death rates from smallpox, measles, scarlet fever, and whooping cough among working class as compared to upper class children [4]. In India, maternal and child health-care services are available both in private and public sectors. To address the problems, the NRHM was launched in April 2005 by the Government of India as an umbrella program with the aim of improving the availability and access of quality health care for people; especially, for those residing in rural areas, the poor, women, and children [5].

Breastfeeding is the normal way of providing young infants with the nutrients they need for healthy growth and development. Exclusive breastfeeding is recommended up to 6 months of age, with continued breastfeeding along with appropriate complementary foods up to 2 years of age or beyond [6]. It plays an important role in reducing child mortality. It is important that the breastfeeding is continued up to 2 years to provide better nutrients and growth to the child [7]. The purpose of complementary feeding is to complement the breast milk and make sure that the young child continues to have enough energy, protein, and other nutrients to grow [8]. Providing adequate and appropriate supplements to young children prevent malnutrition [9]. This study aims to find the effect of the social factors of the parents on the breastfeeding and the feeding practices of the child since birth. We hypothesized that better the living conditions of the parents, better care is provided to the child.

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MATERIALS AND METHODS

This cross-sectional study was conducted among 162 households of child aged 2–5 years in Bharatpur, Rajasthan. The data were collected through a door-to-door survey; fieldwork was done for a period of 6 months. The purpose of the study was explained to each participant and an informed consent about the child and the mother was taken from each participant. Ethical clearance was obtained from the Institutional Ethics Committee.

A general set of questionnaire was prepared to collect the following information: (a) Demographic details of the children

Table 1: Basic biosocial characters of the parents

S. No.	Characteristics	Mother	Father	p-value (t-test)
		Mean (SD)	Mean (SD)	
	n	182	182	
1.	Age at marriage (years)	18.54 (2.417)	21.25 (3.125)	<0.001
2.	Age at birth of the child (years)	24.46 (4.296)	27.18 (4.741)	<0.001
3.	Age at menarche (years)	13.09 (1.156)	N/A	
		Count (%)	Count (%)	p-value (χ^2 -test)
4.	Employment status	27 (14.83)	182 (100)	0.206
5.	Literacy	125 (68.68)	153 (84.06)	<0.001
6.	Type of family			
	Nuclear	107 (58.79)	92 (50.549)	<0.001
	Joint	75 (41.21)	90 (49.451)	<0.001

Table 2: Relationship of lifestyle factors of parents with the duration of breastfeeding

S. No.	Social factors	n (%)	Duration of breastfeeding (n=182)		p-value (χ^2 -test)
			≤ 12 months	>12 months	
			100 (61.25)	82 (45.05)	
1.	Socioeconomic status of family				
	Lower+Middle	31 (17.03)	14 (45.2)	17 (54.8)	0.242
	Upper	151 (82.9)	86 (57.0)	65 (43.0)	
2.	Lifestyle of mother				
	Tobacco smokers	4 (2.19)	3 (75.0)	1 (25)	0.628
	Tobacco chewers	22 (12.09)	11 (50.0)	11 (50.0)	0.621
3.	Lifestyle of father				
	Tobacco smokers	35 (19.23)	16 (45.7)	19 (54.3)	0.224
	Tobacco chewers	97 (52.3)	55 (56.7)	42 (43.3)	0.613
	Alcoholics	59 (32.42)	36 (61.0)	23 (39.0)	0.257
4.	Education of mother (class)				
	<10	163 (89.56)	89 (54.60)	74 (45.39)	0.002
	≥ 10	19 (10.4)	11 (57.9)	8 (42.1)	
5.	Education of father (class)				
	<10	140 (76.92)	72 (51.43)	68 (48.57)	0.034
	≥ 10	42 (23.08)	28 (66.7)	14 (33.3)	
6.	Number of family members				
	≤ 10	144 (79.12)	82 (56.9)	62 (43.1)	0.028
	>10	38 (20.88)	18 (47.4)	20 (52.6)	

of the participating mother such as name, age, sex, date of birth, and birth weight. (b) Information about parents including their name, age, education, age at marriage, religion, at which child was born, occupation, and monthly income. (c) Lifestyle of parents and it was defined on the basis of their addiction to either tobacco or alcohol and their frequency of intake. Socioeconomic status (SES) was calculated using standard SES of NFHS III.

The study was designed to obtain all the necessary information about the feeding habits of the children. The variables used to measure the duration of the breastfeeding were, if it is stopped before 6 months of the child's age or continued till 24 months. Furthermore, if the initiation of the supplementary food was done before 6 months of the age or after 6 months were also considered. The analysis of the data was performed using Statistical Package for the Social Sciences version 20 package. $p < 0.05$ was considered as statistically significant.

RESULTS

Association with various social factors (such as SES of family, lifestyle of parents, education of parents, employment of parents, and number of family members) with feeding practices of the child has been studied. Table 1 depicts, the distributive factors of mother and father of the child, where the mean age of the mothers when they got married is 18.54 years while the mean age of the father at marriage is 21.35 years.

As evident from Table 2, more educated (<10th class) parents supported breastfeeding for longer period. Number of family

Table 3: Role of social factors of parents with the age at initiation of supplementary food

S. No.	Social factors	n (%)	Age at starting supplementary food (n=182)		p-value (χ^2 -test)
			6–12 months	>12 months	
			162 (89.01%)	20 (10.99%)	
1.	SES of family				
	Lower+Middle	31 (17.03)	29 (93.5)	2 (6.5)	0.431
	Upper	151 (82.9)	133 (88.1)	18 (11.9)	
2.	Lifestyle of mother				
	Tobacco chewers	22 (12.09)	15 (68.2)	7 (31.8)	0.001
3.	Lifestyle of father				
	Tobacco smokers	35 (19.23)	27 (77.1)	8 (22.9)	0.012
	Tobacco chewers	97 (52.3)	82 (84.5)	15 (15.5)	0.039
	Alcoholics	59 (32.42)	49 (83.1)	10 (16.9)	0.076
4.	Education of mother (class)				
	<10	163 (89.56)	146 (89.57)	17 (10.43)	0.142
	≥10	19 (10.4)	16 (84.2)	3 (15.8)	
5.	Education of father (class)				
	<10	140 (76.92)	123 (87.86)	17 (12.14)	0.604
	≥10	42 (23.08)	39 (92.9)	3 (7.1)	
6.	Number of family members				
	≤10	144 (79.12)	128 (88.9)	16 (11.1)	0.727
	>10	38 (20.88)	34 (89.5)	4 (10.5)	

members also affected the duration of breastfeeding of the child ($p<0.05$). However, other lifestyle factors and SES were not significantly associated with the duration of the breastfeeding.

Table 3 displays the frequency count and percentage in each category depending on the age of the child at which supplement food was given. Tobacco addiction in mothers as well as fathers was significantly associated with age at initiation of supplementary feeding.

Table 4 Demonstrates combined effect of social factors on both the feeding practices, that is, breastfeeding and supplement food given to the child. Results show that every social factor of the parents affects the feeding practices of the child. The present study did not show level of significance with the SES of the family and also with number of family members.

DISCUSSION

The general biosocial characters of parents such as age at marriage and age at which the child was born showed that the difference between mother and father was $p<0.05$. In most of the developing world marriage signals the beginning of reproductive life; hence, early marriage is associated with early childbearing and higher fertility, both of which are detrimental to child survival [10]. Moreover, maternal education has a significant effect on infant mortality and growth [11]. Education of mother and father also influences the care of the child. Various studies have also shown that the educated people have given good care to their children.

Chen *et al.* (2009) studied the effect of maternal education on the health of the young adopted children to prove the fact that educated parents provided better care to the child [12]. Mothers who are educated have better control over three areas: Finances

Table 4: Association of duration of breastfeeding and age at initiation of supplementary food of the child with the social factors of parents

S. No.	Duration of breastfeeding	≤12 months	>12 months	p-value (χ^2 -test)
		6–12 months	>12 months	
		n (%)	98 (84.48)	
1.	SES of family			
	Lower+Middle	13 (13.4)	1 (5.9)	0.384
	Upper	84 (86.6)	16 (94.1)	
2.	Lifestyle of mother			
	Tobacco chewers	15 (9.2)	12 (15.8)	<0.001
3.	Lifestyle of father			
	Tobacco smokers	27 (16.6)	14 (18.4)	0.003
	Tobacco chewers	82 (50.3)	43 (56.6)	0.035
	Alcoholics	49 (30.1)	27 (35.5)	<0.001
4.	Education of mother (class)			
	<10	89 (90.8)	16 (88.9)	0.002
	≥10	9 (9.2)	2 (11.1)	
5.	Education of father (class)			
	<10	70 (69.9)	14 (86.7)	0.034
	≥10	28 (30.1)	4 (13.3)	
6.	Number of family members			
	≤10	80 (80.6)	12 (73.3)	0.287
	>10	18 (19.4)	6 (26.7)	

of the family, decision-making, and freedom of movement [13]. Lifestyle of mother affects the breastfeeding of the child, like smoking and tobacco habits of the mother may have adverse

health effect on the infant. The effects of smoking on breast milk may be important for health education programs intended to reduce smoking among parents [14]. Studies have shown that the lifestyle of the mother affects the duration of breastfeeding.

The study by Biederman *et al.* (2017) showed that the maternal smoking could affect the breastfeeding [15], furthermore, this study also showed that maternal education is also linked to breastfeeding of the child. Various studies on children of alcoholic fathers have suggested that they are at higher risk for negative outcomes, such as behavior problems, conduct disorders, and later delinquency including substance use [16-18]. Association of the social factors with the age at initiation of supplement food of the child showed some of the significant results. According to general WHO guidelines, the ideal age at which the supplement food of the child has to be started is after 6 months of age of the child.

CONCLUSION

Our study concludes the effective association of social factors and the lifestyle of parents such as smoking, tobacco chewing, and alcohol habits with breastfeeding and feeding practices of the child. The father's tobacco usage status was found to be associated with the age of initiation of supplement food of child.

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