

## Maternal Psychosocial care and Child feeding practices

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### Abstract

**Introduction:** Psychosocial care is the process by which caregivers meet the needs of infants in terms of adequate nutrition, emotional, social, mental, and healthcare to promote healthy growth and development. This study, therefore, aimed to assess the influence of psychosocial care during complementary feeding among mothers.

**Methodology:** It was a cross-sectional design, and the sample size was statistically calculated to arrive at 385 mothers. A structured and self-administered questionnaire collected information on socio-economic status and psychosocial care during complementary feeding practices. WHO feeding indicators were used to assess the feeding practices of the mothers. Data were analysed using both descriptive statistics and inferential statistics.

**Results:** The study showed that 52.1% of respondents were between 20 and 29 years old, 88.1% were married, and others were single or divorced mothers. The feeding indicator showed that 21.5% of respondents met the Minimum Adequate Diet. Half of the respondents (50%) monitored the amount of food consumed by the children, while 12.4% encouraged the children to finish the food served. There was an insignificant relationship between maternal psychosocial care and complementary feeding practices ( $\chi^2$ ;  $p>0.05$ ), whereas there was a significant association between maternal psychosocial care and maternal age ( $\chi^2$ ;  $p=0.043$ ) as well as religion ( $\chi^2$ ;  $p=0.031$ ).

**Conclusion:** The study concluded that mothers who had advanced in age had better maternal psychosocial care during complementary feeding than the younger mothers. Therefore, maternal nutrition education on complementary feeding and care during infants' feeding should be encouraged during antenatal and post-natal clinics.

**Keywords:** Infant, Complementary feeding, Maternal, Psychosocial care, Nutrition Education

### Introduction

Good complementary feeding knowledge and practices among mothers of under-five children would prevent the consequences of undernutrition, enabling average growth and cognitive development in children. Lack of adequate nutrition and poor psychosocial care among mothers has been identified as the main factors responsible for Severe-

Acute-Malnutrition (SAM) in children (Mahmoodianfard & Haghghat, 2021). The average growth and development of infants and young children require care that adequately meets their basic physical needs, such as nutrition, health, clothing, and socio-emotional or psychological needs (Engle & Ricciuti, 1995).

The psychosocial care that meets these needs includes the caregiver's

responsiveness and sensitivity, affection and warmth, psychological involvement with the

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child, and encouragement of learning and development.

Psychosocial care is defined as a process by which caregivers (mothers, siblings, fathers and childcare providers) meet the needs of infants in terms of adequate nutrition, emotional, social, mental and healthcare for promoting healthy growth and development (Ogunba, 2010). Appropriate psychosocial care exhibited by nursing mothers during complementary feeding periods usually goes a long way to improve the nutritional and health well-being of weaning-aged children.

In order to improve complementary feeding among infants, psychosocial care during the period of complementary feeding must be carefully handled and taken into account (Barrett *et al.*, 2016). Hence, maternal psychosocial factors impact feeding during the complementary feeding period, necessitating intensive psychological care (UNICEF, 2022a). Maternal psychosocial care integrates the availability of food and medical resources into the well-being of a child (WHO, 2020). It is not only about the procedures but also about how psychosocial treatment is delivered. In order to promote the growth and development of children, this should be done with love and consideration for the children (Huynh *et al.*, 2019). Adequate nutrition and wellness of infants may be influenced by the mother's psychosocial care, according to the report of Nagelet *al.* (2022).

Mothers' feeding techniques that incorporate the principles of psychosocial care come in third among the eight principles governing complementary feeding of children (WHO, 2021). Caregiving behaviours

have been found to promote development and growth (LaVela *et al.*, 2021). Various psychological elements affect how well infants consume food and thrive during the period of complementary feeding, and these include feeding the young child actively or interactively as opposed to passively presenting food to the children (Shoup, 2018); choosing foods that are appropriate for their developing motor skills and taste preferences (DeJesus, 2022); feeding in response to their hunger cues (USDA, 2021); and feeding in a distract-free, safe environment (Delacey *et al.*, 2022). The children's development is facilitated by feeding in a calm, secure setting, conversing, and playing with the infant while eating (Hu *et al.*, 2021).

Several studies on infant and child feeding have discovered that maternal psychological traits may affect the results of feeding styles. Despite the importance of psychosocial care during infant feeding, little is known about this among nursing mothers of under-five children in Ogun State; hence, this study aimed to determine complementary feeding practices and psychosocial care levels of nursing mothers of under-five children in Ogun State.

## Materials and methods

### Study location.

The study location was the Basic Health Centres (BHCs) in Ifo Local Government Area in Ogun State, Nigeria. Ifo Local Government Area has its headquarters in Ifo town with an area of 521 km<sup>2</sup> (201 sq.m) and a population of 698,837 at the 2019 National Population Commission (NPC) [Nigeria] and ICF. 2019.

were living together with their husbands, while the remaining were either separated or single parents. The educational background of the nursing mothers indicated that three-quarters of the nursing mothers had elementary and secondary school education, while 22.1% and 7.8% attained tertiary and no formal education, respectively.

## Results

### Socio-Demographic and Economic Characteristics of the Respondents

The socio-demographic characteristics of the respondents, as indicated in Table 1, showed that the highest proportion (50.9%) were within the age range of 20 to 29 years. The marital status of respondents showed that a large proportion of the nursing mothers

**Table 1: Socio-Demographic and Economic Characteristics of the Respondents**

Variables	Frequency (385)	Percentage (%)
<b>Age (years)</b>		
<20	6	1.6
20-29	196	50.9
30-39	154	40.0
40-49	29	7.5
<b>Marital Status</b>		
Single	40	10.4
Married	322	83.6
Divorced	21	5.5
<b>Religion</b>		
Christianity	224	58.2
Islam	141	36.6
Traditional	12	3.1
Others	8	2.1
<b>Ethnicity</b>		
Hausa	40	10.4
Ibo	70	18.2
Yoruba	265	68.8
Others	10	2.6
<b>Level of Education</b>		
Primary	117	30.4
Secondary	153	39.7
Tertiary	85	22.1
None	30	7.8
<b>Occupation</b>		
Full Housewife	77	20.0
Business	199	51.7
Civil Servant	49	12.7
Artisans	57	14.8
None	3	0.8

### **Psychosocial Care Practices of Respondents in Complementary Feeding**

The psychosocial care practice of nursing mothers during complementary feeding of infants is presented in Table 2. In Table 2, mothers were concerned about how much their children ate from the meals served. According to this study, mothers experimented with various foods when their

children refused to eat. This was done to determine which foods would be the most acceptable by the children and encourage the children to eat more. The present study established that most nursing mothers did not make their children's meals more colourful or serve them on colourful plates that were attractive to children. Besides, many force-feed their children instead of encouraging them to complete their meals.

**Table 2: Psychosocial Care Practices of Respondents in Complementary Feeding**

Variables	Never(%)	Seldom (%)	Often (%)	Always (%)
Interacting with the child during meal	114(29.6)	71 (18.4)	90 (23.4)	110 (28.6)
Sitting with my child while eating	69 (17.9)	85 (22.1)	58 (15.1)	173(44.9)
Not looking at child's face during meal	52 (13.5)	66 (17.1)	106 (27.5)	161 (41.8)
Eulogize the child while eating	106 (27.5)	56 (14.5)	62(16.1)	161 (41.8)
Encouraging the child to feed him/herself	144(37.4)	85 (22.1)	87 (22.6)	69 (17.9)
Feeding the child only when he/she is hungry	93(24.2)	116 (30.1)	81 (21.0)	95 (24.7)
Giving the child time to finish the food	66(17.1)	68 (17.7)	94 (24.4)	157 (40.8)
Scolding the child if s/he refuses to eat	42 (10.9)	52 (13.5)	132 (34.3)	159 (41.3)
Monitoring how much the child eat	43(11.2)	57 (14.8)	103 (26.8)	182 (47.3)
Not paying attention child's hunger cue	152 (39.5)	36 (9.4)	43 (11.2)	154(40.0)
Making sure the child is satisfied with food	42 (10.9)	49 (12.7)	98 (25.5)	196(50.9)
Force-feeding the child	93 (24.2)	79 (20.5)	58 (15.1)	155 (40.3)
Experimenting with different food and methods of encouragement	82 (21.3)	114 (29.6)	71 (18.4)	118 (30.6)
Not presenting the food in attractive plates	142 (36.9)	68 (17.7)	63 (16.4)	112(29.1)
Putting off the TV when the child is eating	130 (33.8)	104 (27.0)	83 (21.6)	68 (17.7)
Not making the food appealing and colourful	158 (41.0)	58 (15.1)	56 (14.5)	113 (29.4)

### **Relationship between Practices of Psychosocial care and Complementary Feeding**

The relationship between practices of psychosocial care and complementary feeding practices is shown in Table 3. The result establishes no significant ( $p>0.05$ ) relationship between MAD and psychosocial care in this study. For the Minimum Dietary Diversity (MDD), fewer children received the Minimum Dietary Diversity ( $\geq$  four food groups) which accounts for the lower percentage of MAD attainment in this study.

In addition, it was observed in this present study that during infants' complementary feeding, there was no significant relationship between psychological care and MDD. The nursing Mothers in this present study were observed to introduce complementary food early between the ages of 6 and 8 months to their infants. However, there was no significant ( $p>0.05$ ) relationship between psychosocial care and the start of complementary feeding. Besides, there was no significant relationship between the mothers' psychosocial care and the MMF.

**Table 3: Relationship between Practices of Psychosocial care and Complementary Feeding**

Parameters	Psychosocial care Practices						P-value
	n	%	n	%	N	%	
<b>Commencement of Complementary Feeding</b>							
<6 months	12	3.1	12	3.1	0	0	
6-11 months	66	17.1	219	56.9	16	4.2	0.214
12-17 months	12	3.1	17	4.4	11	2.9	
18-23 months	0	0	9	2.3	11	2.9	
<b>Minimum Dietary Diversity (MDD)</b>							
Not met	57	20.9	203	77.4	13	4.4	0.487
Met	21	20.8	78	73.6	13	5.7	
<b>Minimum Feeding Frequency(MFF)</b>							
Not met	14	13.6	66	64.1	23	22.3	0.332
Met	54	19.1	216	76.6	12	4.3	
<b>Minimum Acceptable Diet (MAD)</b>							
Not met	58	19.1	214	78.1	22	2.7	0.525
Met	19	25.0	58	70.0	14	5.0	
<b>Timely Introduction of Complementary Feeding</b>							
Timely introduced	51	18.21	205	73.2	24	8.5	0.553
Not timely introduced	26	24.8	67	63.8	12	11.4	
<b>Appropriate Complementary Feeding Practices</b>							
Inappropriate	52	18.4	215	76.2	15	5.3	0.913
Appropriate	23	22.3	69	66.9	11	10.8	

**Relationship between Socio-Demographic Characteristics and Maternal Psychosocial Care Practices**

The relationship between socio-demographic characteristics and maternal psychosocial care practices, as stated in Table 4, showed that mothers' age is related to psychosocial

care practices. The p-value showed a positive relationship (0.043). As the maternal age advances, there is a reduction in bad psychosocial practices. Type of religion impacted the psychosocial care provided to the children during complementary feeding (0.031). Meanwhile, marital status (p=0.96),

educational level ( $p=0.163$ ) and ethnicity ( $p=0.187$ ) had no relationship with the

maternal psychosocial care practices of the mothers during complementary feeding.

**Table 4: Relationship between Socio-Demographic Characteristics and Maternal Psychosocial Care Practices**

Parameters	Psychosocial Care Practices						p-value
	Bad		Average		Good		
	N	%	N	%	N	%	
<b>Age group</b>							
<20	0	0	4	66.7	2	33.3	0.043**
20-29	52	26.5	142	72.4	2	1.1	
30-39	6	3.9	72	46.8	76	49.3	
40-49	1	3.1	8	27.5	20	69.0	
<b>Marital Status</b>							
Single	13	32.5	27	67.5	0	0	0.960
Married	54	16.7	224	69.6	44	13.7	
Divorced	7	63.0	2	18.5	18.5	0	
Separated	7	70.0	3	30.0	0	0	
Widow	0	0	0	0	0	0	
<b>Educational Level</b>							
Primary	30	30	85	66	2	3.8	0.163
Secondary	19	12.4	121	79.1	13	8.4	
Tertiary	8	9.4	72	84.7	5	5.9	
None	6	20.0	21	70.0	3	10.0	
<b>Religion</b>							
Christianity	12	5.3	179	79.9	33	14.7	0.031**
Islam	18	12.7	111	78.7	12	8.5	
Traditional	1	8.3	11	91.7	0	0	
Others	5	62.5	3	37.5	0	0	
<b>Ethnicity</b>							
Hausa	10	25.0	29	72.5	1	2.5	0.187
Ibo	16	22.9	49	70.0	5	7.1	
Yoruba	50	18.8	199	75.2	16	6.0	
Others	2	20.0	7	70.0	1	10.0	

\* means significance at  $p<0.05$

### Discussion

The socio-demographic characteristics of the respondents, as indicated in this present study, showed that the highest proportion (50.9%) of the respondents was within the age range of 20 to 29 years, and this observation agrees with the report of Ogunba (2010). This finding implies that the

reproductive age of Nigerian women is between the ages of 20 and 29. The marital status of respondents shows that a large proportion of the nursing mothers were living together with their husbands, while the remaining were either separated or single parents. The educational background of the nursing mothers indicates that three-



quarters of the nursing mothers had elementary and secondary school education, while the remaining attained tertiary (22.1%) and no formal education (7.8%).

The psychosocial care practice of nursing mothers during complementary feeding of infants showed that mothers were concerned about how much their children ate from the meal served (Table 2). According to this study, mothers experiment with various foods when their children refuse to eat. This was done to determine which foods would be the most acceptable by the children and encourage the children to eat more. The present study established that most nursing mothers did not make their children's meals more colourful or serve them on colourful plates that were attractive to children. Meanwhile, feeding the children coloured foods had the dual objectives of providing nutrition and promoting good taste (Brown, 2021). Most mothers in the study area choose to force-feed their children instead of encouraging them to complete their meals. This was in line with Akinrinmade *et al.* (2019), who reported that the majority of mothers in Ondo State, South-West Nigeria, force-feed their children during complementary feeding. There have been reports of mothers scolding and force-feeding their children while they are resisting eating, and this is not a proper method of feeding (Prabha, 2021). The amount of food consumed and the nutritional health of children were influenced by psychosocial care for children during complementary feeding (WHO, 2020).

The present study indicated that 26.5% of mothers aged 20-29 had bad psychosocial practices during complementary feeding. This same age group had 72.4% of the average complementary feeding practice. Meanwhile, mothers between the ages of 30 and 39 had just 3.9% of bad complementary feeding practices, and mothers between 40 and 49 had only 1% of harmful practices, according to Table 4. This shows that maternal age is related to psychosocial care practices during complementary feeding.

Shagaro *et al.* (2021) reported that maternal experience with previous children influences complementary feeding practices in Ethiopia. Psychosocial care during complementary feeding could enhance the food intake of infants during complementary feeding. It is well established that psychosocial care exhibited by nursing mothers or caregivers encourages adequate child food and nutrient-dense intakes, facilitating children's growth and development (Ogunba, 2010).

The mothers' psychosocial care practices are essential for establishing a Minimum Adequate Diet during complementary feeding (Bimpong *et al.*, 2020). A study (UNICEF, 2022a) reported that children's nutritional status is influenced by the quantity and quality of food intake and psychosocial care rendered by the parents or caregivers. Masuke *et al.* (2021), who examined the impact of improper complementary feeding practices in Tanzania showed poor compliance of the mothers to complementary feeding guidelines.

The relationship between maternal psychosocial care and complementary feeding practices is shown in Table 3. The result establishes no significant ( $p > 0.05$ ) relationship between MAD and psychosocial care in this study. The complementary feeding practices and psychological care during complementary feeding among the mothers in the study population might lead to a lower percentage of MAD achieved. However, fewer children received the Minimum Dietary Diversity ( $\geq$  four food groups), accounting for the lower percentage of MAD attainment in this study. A study (Samuel&Ibidapo, 2020) had previously noted this among mothers in South-West Nigeria. The main issue with mothers' complementary feeding practices in developing countries is the low rate of MAD achieved (Kang *et al.*, 2022; Kebede *et al.*, 2022). Similarly, Jacquier *et al.*, (2020) reported on the lack of variation in the complementary feeding practices of Filipino children, particularly those from low-income families.

In addition, it was observed in this present study that during infants' complementary feeding, there was no significant relationship between psychological care and MDD. This finding is similar to the report of Samuel & Ibadapo (2020) in Southwestern Nigeria, Asmare *et al.* (2020) in Northeast Ethiopia, and Benet *al.* (2021) in Russia. It is worth noting that if mothers could provide their infants with at least four different food groups daily, MDD might be achieved (WHO, 2020). The nursing Mothers in this study were observed to introduce complementary food early, between 6 and 8 months, to their infants. However, there was no significant ( $p>0.05$ ) relationship between psychosocial care and the start of complementary feeding. Besides, no significant relationship was observed between the mothers' psychosocial care and the MMF. The relationship between socio-demographic characteristics and maternal psychosocial care practices (Table 4) indicates that mothers' age and type of religion impacted the psychosocial care provided to the children during complementary feeding, and this finding agrees with the report of Bushaw *et al.*, (2020).

The study recommends further research on the influence of nutrition education on psychosocial care during complementary feeding. This may improve psychosocial care awareness and practices among nursing mothers and caregivers.

**Conclusion:** The study established that the psychosocial care of mothers has no significant relationship with complementary

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feeding practices. However, age and religion influenced the psychosocial care of nursing mothers or caregivers. Further study is required to substantiate the findings in this present study.

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