

KNOWLEDGE ASSESSMENT TOOL ON COMPLEMENTARY FEEDING AMONG MOTHERS OF INFANTS: RELIABILITY AND VALIDITY

Kogila.P¹ & Dr.Sujatha Sridharan² & Dr.Rajalakshmi³

¹Research Scholar, Chettinad College of Nursing, Chettinad Academy of Research And Education, Tamil Nadu, India.

²Professor, Department of Pediatrics, Chettinad Hospital and Research Institute, Tamilnadu, India.

³Professor, Child Health Nursing, Chettinad Academy of Research And Education, Tamil Nadu, India.

Received: May 23, 2018

Accepted: July 13, 2018

ABSTRACT

Reliability and validity of knowledge assessment tool on complementary feeding among mothers of infants. The objectives were to examine the validity and reliability of the tool to assess the knowledge questionnaires of complementary feeding among mothers of infants. A non-probability convenient sampling technique with a sample of 50 mothers was included, structured questionnaires were used to assess the knowledge. The collected data was tabulated and analyzed by using descriptive and inferential statistics. The multi mothers who had an average score (mean±SD) of 23.9± 3.1, The primi mothers had an average score (mean±SD) of 18.7 ± 4.9, respectively. The reliability score of structured questionnaires was 0.88 and which represents the positive correlation, indicating that the tool is highly reliable, so that the knowledge assessment tool on complementary feeding among mothers of infants can be used as a validated tool to conduct a research project in the future.

Keywords: Reliability and validity, complementary feeding, mothers of infants.

Introduction:

“The future of a child is in the hands of his parents”

- Unknown author

Complementary feeding is a process of gently initiating semi-liquid to semi-solid food items along with breast feeding at the completion of 6 months till 2 years. WHO recommendations are Breast-milk is the most natural and perfect food for normal growth and healthy development of infants till 6 months of age. Breast milk output starts to decline thereafter but baby's physical and cognitive development continues at a very fast till the end of 2 years. At 6 months of age complementary feeding must be initiated and continued breast feeding-failing which will lead to malnutrition.

World Bank statistics show that every 6 seconds one infant is dying by malnutrition.

As per WHO report if the mother is educated properly, mothers of infants gain knowledge on complementary feeding it will definitely bring down the infant mortality rate. Many literatures and reviews are suggesting and strongly recommending that education gives tremendous positive changes in mothers' knowledge and behavior, it will reflect on infants by means of feeding the child therefore to reduce malnutrition in infants and infant mortality.

Title:

Reliability and validity of knowledge assessment tool on complementary feeding among mothers of infants in a selected tertiary Hospital, Kancheepuram district, Tamilnadu, India.

Objectives:

To examine the validity and reliability of the tool to assess the knowledge questionnaires of Complementary feeding among mothers of infants.

Methodology:

This study had used Reliability and validity of knowledge assessment tool with quantitative non-experimental –evaluative approach and descriptive correlational design to collect the data among the mothers who were satisfied the inclusion criteria. The sample size was 50 calculated by using $DEFF \cdot Np(1-p) / [d / z / 2 \cdot (N-1) + p(1-p)]$ with 95% Confidence level and 5% Confidence interval, Non probability-purposive sampling technique were adopted.

Sampling Criteria:**Inclusive Criteria:**

The study includes mothers who were

- ❖ having the children less than the age 1 year.
- ❖ able to understand Tamil or English.
- ❖ available at the time of data collection.
- ❖ willing to participate in the study.

Exclusive Criteria:

The study excludes mothers who are having critically ill children.

RESULTS:**VALIDITY:****1. Content validity**

The content validity of the tool was established in consultation with 10 experts i.e. 5 Nursing experts & 5 pediatric medical experts and statistician. As per the suggestions of the experts the Researcher had made the necessary modifications in the tool.

2. Construct validity

It shows that the mothers who are already having children scored consistently higher than the primi mothers in the other group ($p < 0.001$). The mothers who are already having children had an average score (mean \pm SD) of 23.9 ± 3.1 . The primi mothers had an average score (mean \pm SD) of 18.7 ± 4.9 , hence the mothers who are already having children answered more questions correctly compared to the primi mothers.

3. Criterion Validity

In this study, Researcher has done a predictive validity on complementary feeding based on the reviewed literatures. The reviewed literatures supported the criteria's presented in the tool.

RELIABILITY**1. Test-retest method**

Test-retest reliability involves administering the same measure to the same group of test-takers under the same conditions on two different occasions and correlating the scores. The reliability coefficient is simply the correlation (a Pearson's correlation) between the scores on the first and the second testing

Test-1 conducted on 13.06.2017 and test-2 conducted on 20.06.2017 for the same group.

- ❖ The value for a Pearson's coefficient was $r = 0.83$

2. Split - half reliability

- ❖ The reliability of the tool was established by using split half method for assessment of the level of knowledge. The structured questionnaire which has 30 items in it, was divided into odd and even items, to check its internal consistency. The correlation co-efficient was calculated using the Spearman correlation coefficient formula.
- ❖ The calculated value of $r = 0.88$.
- ❖ There by the tool was considered as reliable.

3. Internal consistency:

- ❖ The tendency towards consistency found in repeated measurements of the same phenomenon is referred to as reliability. Cronbach's alpha was used in assessing the reliability of tests for knowledge on complementary feeding with questions that have four possible responses. Cronbach's alpha ranges from $r=0$ to 1, with $r=0.7$ or greater considered as sufficiently reliable.
- ❖ Cronbach's alpha value was $r = 0.843$. (questionnaire)

Table:1 ,Interpretation of Pearson Product-moment correlation Coefficient (r)

Value of r	Informal interpretation
Less than 0.20	Slight, almost no relationship
0.21-0.40	Low, correlation; definite but small relationship
0.41-0.70	Moderate correlation; substantial relationship
0.71-0.90	High correlation; strong relationship
0.91-1.00	Very High correlation; very dependable relationship

Fig: 1, Correlation of knowledge assessment tool on complementary feeding among mothers of infants

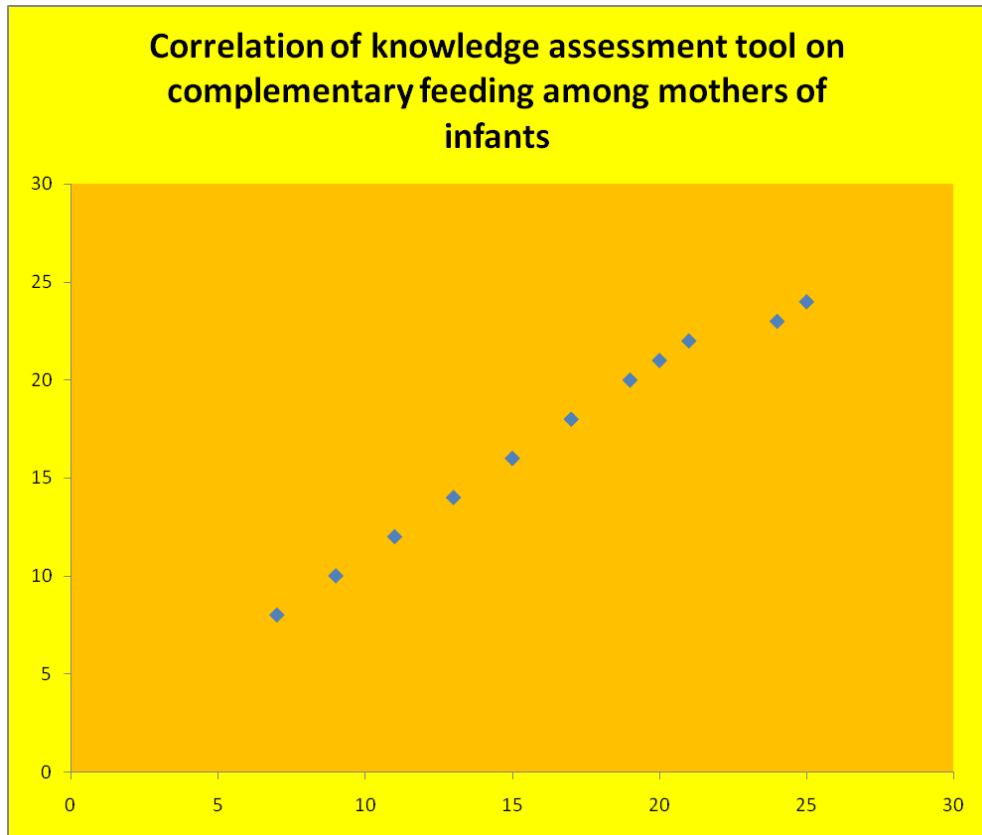


Fig: 1 shows the positive correlation r value- 0.88

Summary:

The finding of the present study reveals that the demographic tool shows that there is significant association with Occupation, type of family and there is no significant association for Age of the mothers, Educational status, Number and order of children. This study were examined the validity and reliability of tool that assess the knowledge questionnaires of complementary feeding, spearman “r” were used to assess the statistical reliability. The reliability score of structured questionnaire was 0.88 and which represent the positive correlation, indicates that the tool is highly reliable.

Conclusion:

Highly reliable knowledge assessment tool on complementary feeding among mothers of infants can be used as validated tool to conduct a research project in future.This will help the mother to gain adequate knowledge on complementary feeding to give good health to their children and prevent infection, diseases especially during infancy period.

References:

1. Budnitz DS, Love grove MC, Rose KO. Adherence to label and device recommendations for over-the-counter paediatric liquid medications. Paediatrics. 2014; 133(2):e283-290.WHO and UNICEF ,Joint child malnutrition estimates - Levels and trends (2016 edition). (accessed 2015).
2. WHO. Global Health Observatory (GHO) data on infant mortality and causes of death. WHO website (accessed 2015).
3. UNICEF global databases, 2017.
4. District human development report 2017-kancheepuram district.
5. UNICEF, WHO, World Bank Joint Child Malnutrition dataset, May 2018