

Assessment of Mothers' Knowledge and Attitude regarding Weaning Practice at Maternal and Child Health Care Centers

Abeer A E. . M. Farghaly¹, Maha .M. mohammed², Farida. K. Yousef³, Mervat E.I.shelil⁴

1. B.SC.Nursing .2. Assist Professor of community and Family Health Nursing Port Said university
3. Assist Professor of community and Family Health Nursing Suez Canal University. Egypt
4. Lecturer of community and Family Health Nursing Suez Canal University .Egypt

Abstract

Background: At six months of age weaning is needed from that age because breast milk or infant formula alone are not enough to cover the infant's energy needs or provide sufficient amounts of certain nutrients as protein, zinc, iron and fat-soluble vitamins **Aim of The Study:** to assess mother's knowledge and attitudes regarding weaning practice at Maternal and child Health Care Centers in Ismailia City. **Design:** A descriptive design was utilized in this study. **Setting:** the study was conducted at the maternal and child health care centers setting namely; Hai El-Salam, El-Sheikh Zayed, El-shohadaa and EL-Sabaa Banat affiliated to Ismailia health sectors. **Sample:** Convenience sample was used in this study, the sample included 353 breast fed mothers with infant aged from 6 month to 2 year. **Tools of data collection:** Two tools were used to collect data the first tool a structured interview questionnaire sheet , the second tool ; Attitude inventory included five items eliciting responses on likert scale. **Results:** indicated that 42.8% of mothers had moderate knowledge level, while 64.3% of the mothers had a positive attitude towards weaning practice **Conclusion:** the study concluded that less than half of the mothers had moderate level of knowledge regard weaning practice, and also two third of the studied mothers had a positive attitude towards weaning practice. **Recommendation:** Improve knowledge and attitudes of mothers regarding weaning practice through using visual aids such as posters, illustrated pamphlets in simple and clear language booklets.

Keywords: Attitude, Knowledge Weaning Practice.

1. Introduction

Poor weaning practice are associated with poor awareness of weaning guidelines, which is particularly apparent in young mothers, those receiving benefits and those with low educational attainment, also may increase the risks of gastrointestinal infection, respiratory infections, and underweight and mortality (Naseem and masher et al. 2016)

Therefore, proper foods after 6 months of age are very essential for the infant along with the breast milk to provide sufficient nutrients (Venugopal et al. 2016). The mother-infant relationship is the most vital formative relationship for the child. From the very first moments of life, a baby begins interacting with its mother.

Thus, mother's health, her education, her beliefs & attitude regarding child rearing are important milestones on the road of child's health right from in utero period (**Ogunsuyi, et al., 2016**).

From the Sixth month onwards, foods should vary and balanced mixtures containing cereals, pulses, foods of animal and vegetable origin and fat should be offered. Therefore, infants should be initially offered foods containing low sugar and salt contents. It is important to offer, every day if possible, four foods of animal origin (rich in iron and proteins), fruit and vegetables, especially those rich in vitamins. Avoid sugary beverages (soft drinks and others), as they reduce the infant's appetite for more nutritious foods and may soften the stools, tea and coffee are also unadvisable because they may interfere with iron uptake (**Foterek et al., 2014 and Vajramala , 2015**).

The behaviors of caregivers of infant or how families, infant and young people procure and prepare food and how infant are fed and supervised is influenced by many factors. These include eating patterns, nutritional knowledge, taste preferences, appetite and levels of physical activity. Also important are socioeconomic factors, such as food and dietary taboos, and the tendency in some cultures to prioritize boys and men over girls and women at mealtimes. Nutrition

information, education and counseling are an important response to influence lifelong behavior for healthier food choices, habits and overall nutrition (**UNICEF 2019**).

Inadequate knowledge about appropriate foods and feeding practices is often a greater determinant of malnutrition than the lack of food. People lack idea on what to use during weaning (**Subba, Bhattarai, & Roy, 2014**). Positive parenteral attitude towards infant feeding is an important component in child nutritional health. Infancy period still the most vulnerable segment of any community (**Juneja, 2017**).

1.2 Significance of the study:

Ten million infants die worldwide each year, more than half of the deaths occur because of malnutrition. If adequate health systems were in place nearly 2/3 of the deaths could be prevented. Part of the health systems picture is to promote appropriate feeding practices for infants (**Mohammed, et al. 2014**). The Egyptian demographic and health survey (EDHS) revealed that about

4% of the infants aged three months and one third of the infants aged four to five months were given complimentary food (**Elsayed ,etal .,2019**). Poor weaning practice is consider a major health problem and a highly prevalence among infants and effect on the growth and development from this scope this study was

carried out throw on the situation if weaning so, that study was carried out to assess mother's knowledge and attitudes regarding weaning practice at Maternal and Child Health Care Centers in Ismailia City.

2. Subjects and Methods

2.1 The aim of the Study:

The study aim was to assess mother's knowledge and attitudes regarding weaning practice at Maternal and child Health Care Centers in Ismailia City.

2.2 Research Questions:

1-What is the level of mother s' knowledge regarding weaning practice?

2-What is the mother s' attitude regarding weaning practice?

2.3 Study design:

A descriptive research design was utilized for the current study.

2.4 The sample of the study:

Convenience sample was used in this study. The estimated sample size was 353 who were calculated using the following equation:

$$N = \frac{(Z\alpha)^2 pq}{d^2}$$
 (Sahai and Khurshid 1996)Where;

N=sample size

Z α = the value of standard normal distribution

for type I error probability for the sided test and equals 1.96.

p = estimated proportion of the population that presents the characteristic (when unknown we use p = 0.5)

q =1- p

d = tolerated margin of error (for example we want to know the real proportion within 5%)

2.5 Tool of data collection:

2.5.1 Tool (I): Structured Interview Questionnaire:

It has been developed by the researcher based on review of current related literature to collect the necessary data it was designed in simple Arabic language to assess mothers' knowledge regarding infant weaning practice .It is divided into two parts:

First Part: characteristics of the studied subjects. It is divided into two sections and entitled the following items:

Section (I): Socio-demographic characteristics for infant which include questions related to the following items:

Personal data such as age, gender, number of siblings, birth rank.

Section (II) Socio-demographic characteristics for mothers: age, educational level, address, marital status.

Second Part: mothers Knowledge regarding

infant weaning practice. It is divided into five sections and entitled the following items guided by Wanyoike 2012, and folasaed et al., 2017

Section (I): include questions Mothers' Knowledge about feeding pattern .

Section (II): include questions related to Mothers' Knowledge about weaning .

Section (III): Questions to assess Mothers' Knowledge about weaning process includes statement which the mothers respond with either question.

Section (IV): Questions to assess Mothers' Knowledge regarding weaning practice.

Section (V): Questions to assess Mothers Knowledge about type of weaning foods.

2.5.2 Scoring system for knowledge

Scoring system for knowledge of the studied mothers was calculated as the following:

The total number of questions was (47) and the total scores of (94) grade were given for all questions .The studied mothers' answers were compared with a model key answer, where (2) scores were given for complete correct answer, (1) score for incomplete correct answer and (0) for don't know and incorrect answer .the total score was calculated by summing up and converted in to a percent score. Mother's total level of knowledge has been classified as

follows:

< 50% low level of knowledge

50 - 70 % moderate level of knowledge

> 70 % high level of knowledge.

2.5.3 Tool II: Attitude Inventory:

The attitude inventory included five items eliciting responses on a 3-point likert scale, Points ranged from Disagree (1) to Agree (3) to assess Mothers' attitude regarding weaning practice adopted by (Wanyoike 2012; Walelgn ,et al 2018).

2.5.4 Scoring system of Attitude Inventory:

After the studied mothers answered all the above attitude statments regarding weaning, an attitude index was made. For each postive answer, a studied mother was awarded a score of 1 point. The responses were summed up to acquire the attitude index. The highest possible score was 5 points and the lowest score was a 0. The scores were further categorized as follows:

0 -1 points as negative attitude towards weaning.

2 – 3 points as neutral attitude towards weaning.

4 -5 points as positive attitude towards weaning

2.5.5 Reliability of the study:

Cronbach alpha coefficient was used to assess the internal reliability of the tool. The questionnaire value was (0.840) and the likert scale value was (0.896).

2.6 Fieldwork:

The actual field work was carried out from the beginning of the November (2019) to the end of February (2020). The researcher was available meeting mothers attending mentioned settings. Data were collected through about three days a week (Sunday, Tuesday and Thursday) every day from 5 to 10 mothers were interviewed. The total days of interviewer were 48 day in four month to collected data. Every center were takes one month for collected data.

2.7 Administrative design:

Before the study carried out official letters were addressed from the Dean of the Faculty of Nursing, Suez Canal University, to the directors of each study setting to obtain their approval to carry out the study. Requesting their cooperation and permission to conduct the study meeting and discussion was hold between researcher and directors of four centers to make them aware about the aim and objectives of this research.

2.8 Ethical consideration:

Permission to carry out the study from the

responsible authorities was obtained. Each mother was asked to give verbal consent before participate in the study after full explanation of the nature and the main aim of the study and it's expected out comes. Each mother had the right to withdraw from the study at any time without any rationale, also the researcher assured voluntary participation, anonymity, privacy and confidentiality of collected data during the study. The study was reviewed by the Research Ethics Committee (REC) in the Faculty of Nursing, Suez Canal University.

2.9 Statistical design:

After data were collected, they were coded and transferred into a specially designed format so as to be suitable for computer feeding. Following data entry and statistical analysis was done by computer using statistical package of social science (SPSS) program, (SPSS package version 25, Chicago, USA). Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables, means and standard deviations for quantitative variables. Pearson test was used to test the significance of results of qualitative variables.

3-Results:

Table (1): Reveals that 58.1% of infants their age ranged between 6 months to less 12 month and 53.3% of them were males' infant, also

35.4% of the participants had one previous child, while 37.1% of studied infants are ranked as the first and 32.6% of them are ranked as the second in their families.

Table (2) Shows that 48.2% of the studied mother's age ranged from 20 to 30 years, 44.8% of mothers were graduated from secondary education, while 65.2% of the studied mothers were housewives. Also, 52.1% of the studied mothers lived in rural area, while 87.0% of the studied mothers were married.

Figure (1): clarifies that 42.8% of mothers had moderate knowledge level regarding weaning practice, 34.0% had high knowledge level and 23.2% had low knowledge level, also the mean knowledge score of mothers regarding weaning practice was 59.9.

Figure (2): Shows that 64.3% of the mothers had a positive attitude towards weaning practice. Since most mothers were generally knowledgeable on weaning, this could have affected their attitudes towards weaning positively as well. Only 34.0% of the mothers had a negative attitude towards weaning, also the mean score of mother's attitude regarding weaning practice was 2.98.

4. Discussion

In relation to infant characteristics the finding of present study revealed that, more than half of infants ranged from six month to

less than twelve months (**table 1**) this current result is similar study conducted by Walegn, Arage et al., (2018) titled Knowledge, attitude and practices of mothers on weaning diet who have children 6-23 months age in "filakit gereger town" who found that around Thirty nine point nine percent of infants ranged from six month to less than twelve months.

According to the infant's gender, the result of this study revealed that more than half of the studied infants were males. This current result was in the same line with results of **Ambike, et al. (2017)** titled "A study on the awareness of the weaning practices and the determinants affecting them in a rural hospital based pediatric outpatient clinic of Maval Taluka, Maharashtra." Who found that fifty four point nine percent of the studied infants were males.

In relation to mothers characteristics the finding of the present study revealed that more than forty percent of participated mothers aged between 20 to less than 30 years (**table 2**) this result accordance with the finding of Mohammed et., 2014 who carried out in Sudan "Infants feeding and weaning practices among mothers" and reported that the highest percentage of mothers belonged to the 20 -30 years age group.

As regards to level of education the present study showed that the majority of mothers had Secondary education (**table 2**). this finding was similar to that of Ezenduka, et al. 2018 who carried out a study in Nigeria entitled

"Weaning practices among breast feeding mothers in local communities." And reported that majority of mothers had Secondary education.

As regarding total level of knowledge regarding weaning practice these result presented that less than half of mothers had moderate level of knowledge **Figure (1)** these results were the same line with Folasade, et al. (2017) who conducted this study in Nigeria entitled "Infant weaning knowledge and practice among mothers attending infant welfare clinic in three primary healthcare centers in Ikenne local government area " who found that fifty percent of mothers had moderate level of knowledge. The current result was supported by Saeed et al. 2019 who carried out the study in Tor-Sinai City in Egypt entitled "Infant Weaning Knowledge and Practice among Mothers Attending Maternal and Child Healthcare Center" who found that fifty point five percent of the studied mothers had moderate level of knowledge regard weaning practice.

Also this result varied with the finding of Kamel et al. 2020 who conducted this study in Suez Governorate, Egypt entitled " Pattern of infants' feeding and weaning" who found that more than eighty five percent of mothers expressed their need for additional knowledge.

Concerning mother's total level of attitude the present study revealed that nearly two third

of the studied mothers had a positive attitude towards weaning practice **Figure (2)**. This study in the same line with the results of a study conducted by Wanyoike et al. 2012 who carried out a study in Maragua District entitled "weaning knowledge, attitudes and practices (KAP) among rural mothers" who found that eighty point six percent of the respondents had a positive attitude towards weaning. Also this result an agreement with Suyal, et al 2020 who reported that all mothers had a positive attitude towards weaning practice. This is similar to finding of previous study conducted in Bangalore, rguhs by Rani 2008 who reported that the ninety eight percent of mothers had a positive attitude.

5. Conclusion

Based on the findings of the current study, the study concluded that less than half of the mothers had moderate level of knowledge regard weaning practice and also two third of the studied mothers had a positive attitude towards weaning practice.

6. Recommendations

Based on the present study finding, the following recommendations can be classified, improve knowledge and attitudes of mothers regarding weaning practice through using visual aids such as posters, illustrated pamphlets in simple and clear language booklets. Assessment of mother's knowledge and attitudes should be routinely as a part of management process because mother is the first and important care giver for these infants.

Table (1): Distribution of the studied infants according to their socio – demographic characteristics (n=353)

Items	No.	%
1- Age/ months		
6 months<12 month	205	58.1
12 month to 2 year	148	41.9
2-Gender of Infant		
Male	188	53.3
Female	165	46.7
3- Number of children		
One	125	35.4
Two	95	26.9
Three	67	19
Four	38	10.8
Five and above	28	7.9
4-Infant Rank		
First	131	37.1
Second	115	32.6
Third	54	15.3
Fourth	33	9.3
Five And Above	20	5.7

Table (2) Distribution of the studied mothers according to their socio – demographic characteristics (n=353)

Items	No.	%
1- Age of mother/ years		
<20 years	26	7.4
20<30 years	170	48.2
30<40	139	39.4
40 <50 years	18	5.1
2-Mother's education		
Don't read and write	38	10.8
Basic education	88	24.9
Secondary education	158	44.8
College/University	69	19.5
3-Occupation of Mother		
Mother Working	123	34.8
Mother Non-working (Housewife)	230	65.2
4- Residence		
Rural	184	52.1
Urban	169	47.9
5-Marital status		
Married	307	87.0
Divorced	30	8.5
Widowed	16	4.5

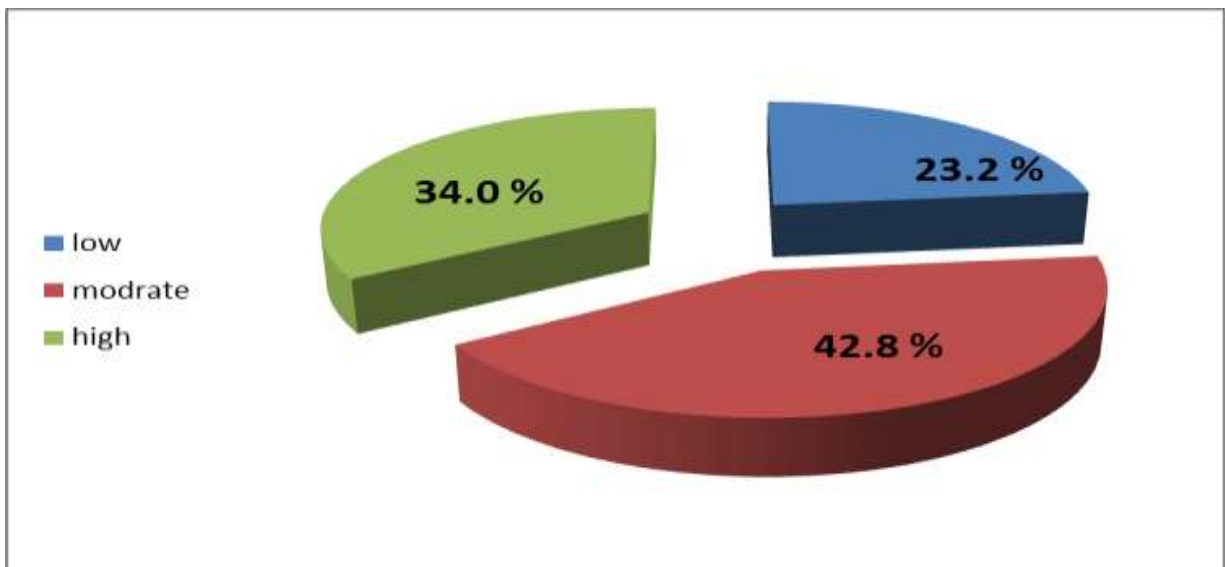


Figure (1): Total level of mother's knowledge regarding weaning practice (n=353)

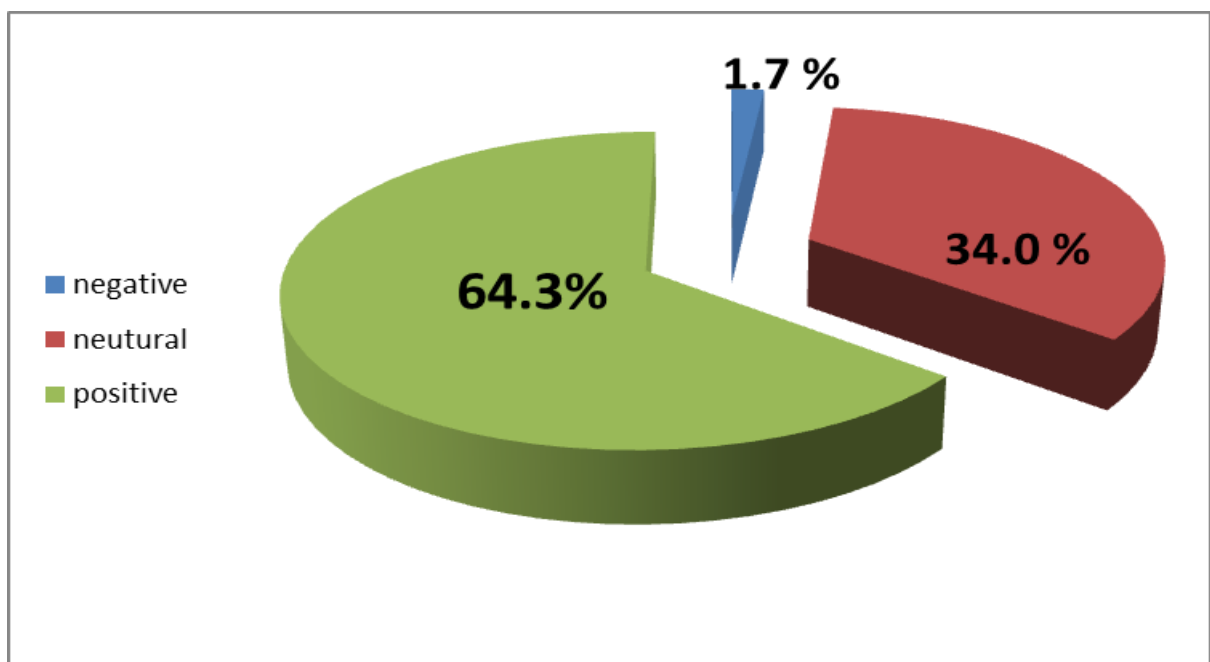


Figure (2): Total level of attitude regarding weaning practice (n=353)

7. References

- Ambike, D., Bhavari, V., Poker, F., & Ahmed, K. (2017).** A study on the awareness affecting them in a rural hospital based pediatric outpatient clinic of Maval Taluka, aharashtra. *International Journal of Contemporary Pediatrics*, vol 4(1), page206-209.
- Elsayed, H. S. S. and Y. H. H. Hussein (2019).** "Age at Weaning between WHO Recommendations and Malpractice in Sharkia Governorate." *The Egyptian Journal of Community Medicine* Vol. 37 No. 4. pages 18-26
- Ezenduka, P. O., Ndie, E. C., & Nwankwo, C. U. (2018).** "Weaning practices among breast feeding mothers in local communities of Enugu State, Nigeria." *Journal of Medical Research and Technology*. Volume 15, Issue 2 ,1000293 pages1-5. DOI: 10.4172/2090-7214.1000293.
- Folasade, A., Janet, K., Emmanuel, O. T., Oluwatosin, O., Mary, A. A., & Chinonye, N. (2017).** Infant Weaning Knowledge And Practice Among Mothers Attending Infant Welfare Clinic In Three Primary Healthcare Centres In Ikenne Local Government Area, Ogun State, Nigeria. *International Journal of Applied Research* vol 3(12) pages 227-230
- Foterek, K., Hilbig, A., & Alexy, U. (2014).** of the weaning practices and the determinants
- "Breast-feeding and weaning practices in the donald study: age and time trends." *Journal of pediatric gastroenterology and nutrition* vol 58(3) pages 361-367.
- Juneja, K. (2017).** Knowledge, attitude and practices regarding weaning of Bharia tribal women of Patalkot valley of Tamia Blok Chhindwara district, MP. *MP International Journal of Home Science*, vol 3 (1), page 82-83. www.homesciencejournal.com.
- Kamel, L., Sabry, H., Ismail, M., & Nasr, G. (2020).** Pattern of infants' feeding and weaning in Suez Governorate, Egypt: an exploratory study *Eastern Mediterranean Health Journal*, volume 26(8), pages 909-915.
- Mohammed, S. G. S. (2014).** Infants feeding and weaning practices among mothers in Northern Kordofan State, Sudan. *European Scientific Journal*, vol 10(24),pages 165-180
- Naseem, A., Mazher, N. (2016).** "A study to evaluate the knowledge, attitude and practices of exclusive breast feeding among primi mothers of healthy term neonates in a tertiary care hospital and predictors of failure of establishment of exclusive breast feeding in first six months". *International Journal of*

Contemporary Pediatrics, vol 3(3), pages,810-814.

Ogunsuyi, G. O. (2016) Assessment of Weaning Practices of Mothers of Under-Five Children Attending Infant Welfare Clinic, Wesley Guild Hospital, Ilesa, Osun State ,Texila International Journal of Nursing, vol 2(2),pages 1-8

Rani, S. T. (2008). Descriptive Study To Assess The Knowledge And Attitude Among Mothers of Infants Regarding Weaning Practices in Selected Rural Communities, Bangalore, RGUHS. Master degree pages 19-58,
<http://localhost:8080/xmlui/handle/123456789/4240>

Saeed, D. M., Shedeed, S. A. E., Abdelsalam, A. E., & Bahaa Eldien, R. M. (2019). Infant Weaning Knowledge and Practice among Mothers Attending Maternal and Child Healthcare Center in Tor-Sinai City. The Egyptian Journal of Hospital Medicine, vol 77(3), pages 5219-5227.

Sahai, H., Khurshid, A, (1996). "formulae and tables for the determination of sample sizes and power in clinical trials for testing differences in proportions for the two-sample design: a review. stat med, vol 15(1), pages 1-21.

•**Subba, S. Bhattarai and R. Roy 2014.**

Knowledge among mothers regarding weaning practice of Jhangad community of Jhorahat V.D.C, Nepal. vol 12 (1)pages 54-59.

Suyal, N., Vedamurthy, R., & Sarfraz, M. Selected Rural Area of Haldwani, Uttarakhand”(2020). International Journal Key Words. "Selected Rural Area of Haldwani, Uttarakhand". Vol. 12, (02).

Vajramala, T. (2015). Comparative study to assess the level of knowledge and practice on infant feeding among working and non-working mothers in selected community areas at coimbatore. RVS College of Nursing, Sulur, Coimbatore, Tamil Nadu, India.Master Degree in The Tamil Nadu Dr. M.G.R. Medical University ,pages13-50

Venugopal, S., Chandrashekar, C. (2016). Knowledge Of Complementary Feed And Its Effect On The Child Nutrition. International Journal of Pediatric Research, vol 3(1), pages 24-31

Walelgn, B., Arage, Y., Habte, E., & Wasihun, S. (2018) " knowledge, attitude and practices of mothers on weaning diet who have children 6-23 months age in filakit gereger town, in 2018 gc dachasa dabalo melese linger 2 genet dejene,

Wanyoike, H. W. (2012). Weaning knowledge, attitudes and practices (KAP)

among rural mothers: a case of Makuyu division, Maragua District. master degree pages 9-56.

United Nations Children's Fund (UNICEF) (2019). October 2019. services, improve nutrition practices and achieve nutrition outcomes at scale <https://www.unicef.org/media/60806/file/SO-WC-2019>.