

Complementary feeding implementation in Pintu Padang Health Centre, South Tapanuli District, Indonesia: a qualitative study

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Abstract

Introduction: Nutritional status is very closely related to the complementary feeding (CF) given to infants. Inappropriate CF practice is still commonly found in Indonesia.

Objectives: To examine the practice of CF in the area of Pintu Padang Health Centre in South Tapanuli District, Indonesia.

Method: This is a qualitative study with a focus group discussion (FGD) approach. Purposive sampling was used to collect 20 respondents from amongst community leaders, district level health officers (nutritionists), health centre officers, midwives and Posyandu (integrated service post) cadres. The FGD was guided by a moderator and recorded using a tape recorder. The results of the FGD recording were transformed by verbatim analysis and turned into sub themes and themes.

Results: Two themes were defined after analysing the information on CF implementation, which are early CF and inadequate nutritional intake. Early CF was based on four sub themes, namely 'pre-lacteal feeding', 'not understanding the readiness of children to be fed by CF', 'lack of support system' and 'lack of knowledge'. Inadequate nutritional intake occurred because CF implementation was not provided to babies based on the principle of balanced nutrition and was processed improperly.

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Conclusions: Practice of CF in the area of Pintu Padang Health Centre in South Tapanuli is still inappropriate considering what WHO recommends.

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(Key words: Early complementary feeding, inadequate nutritional intake, under two children)

Background

Stunting is defined as the impaired growth and development of children under five, usually due to poor nutrition, especially within the first 1,000 days of life or because of repeated infection¹. Stunting is now identified as a global health priority. A target to reduce the number of stunted children under-five in Indonesia is by 40% between 2010 and 2025². The prevalence of stunting in Indonesia is higher than in other South Asian countries, such as Myanmar (35%), Vietnam (23%), Malaysia (17%), Thailand (16%) and Singapore (4%)³. A target to reduce the number of stunted children under-five in Indonesia was by 28% between 2015 and 2019⁴. Data from Riset Kesehatan Dasar (RISKESDAS) – research conducted by Ministry of Health, Republic of Indonesia (2018) reported that the prevalence of malnutrition was 17.7% and the prevalence of stunting of children aged under-two was 29.9%⁵. Nutritional status is closely related to the pattern of complementary feeding (CF) implementation based on the WHO recommendation, which is to start at six months of age.

Children are defined as stunted if their height-for-age is less than the applicable national standard in the Kesehatan Ibadan Anak (KIA) book (a book of mother and infant health record) and other national documents⁷. It is crucial to reduce the stunting prevalence as early as possible to hinder the adverse long term effects on children such as impaired growth and development. Inappropriate CF practice, in quality and quantity, is identified as a key factor causing malnutrition and stunting. Early CF practice causes several health problems such as diarrhoea and infection, whereas too late CF implementation causes inadequate nutrition⁸. CF practice at the age of 6-12 months in Indonesia does not meet the standard stipulated by WHO resulting in a low energy intake and deficiency in micronutrients⁹.

Energy, protein, and vitamin A and C intake for children age 0.5-12 years old are less than the Angka Kecukupan Gizi (AKG) (the Indonesian dietary recommendation), which is recommended by the Ministry of Health, Republic of Indonesia¹⁰. Low micronutrient and macronutrient intake can lead children to suffer from malnutrition. The three major problems of CF practice are 1) poor quality food (low in micronutrients, unvaried food, food that is low in animal protein and low in energy carbohydrates), 2) inadequate CF practice (lack of feeding frequency particularly while babies are ill or recovering from sickness, and inadequate food quantity), 3) the hygienic preparation and storage of food and drinks (contaminated food and drinks, unsafe food preparation and storage)^{11,12}. Based on the above facts, it is important to carry out a study to explore more about the practice of CF in Indonesian society.

Objectives

The aim of this study was to examine mothers' CF practice based on the perspective of professional health workers, Posyandu (integrated service post) cadres and community leaders.

Method

Study setting: This qualitative study with focus group discussion (FGD) approach was conducted in Pintu Padang Health Centre, South Tapanuli District, North Sumatera Province, Indonesia.

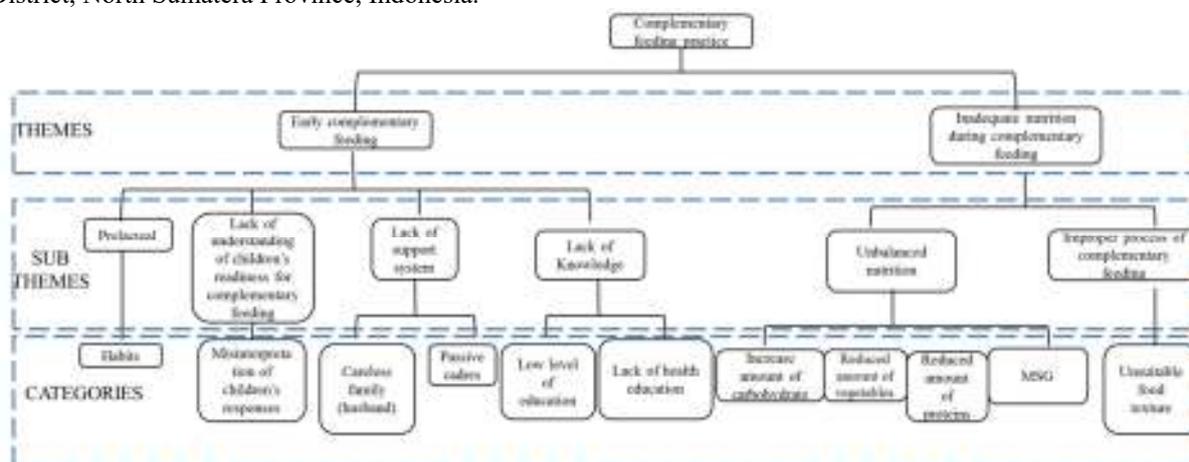
Participants and recruitment: The purposive sampling technique was applied in order to collect 20 respondents who consisted of community leaders, district level health officers (nutritionists), health centre officers, midwives and Posyandu cadres.

Data retrieval: The FGD was guided by a moderator and recorded using a tape recorder. The materials of the FGD included complementary feeding implementation in local society, common obstacles and any support system regarding the CF implementation.

Data analysis: The results of the FGD recording were transformed by verbatim analysis and turned into sub themes and themes. Participants' identity was coded by P1, P2, P3, etc. to maintain confidentiality.

Ethical issues: Ethical clearance was obtained from the Ethics Committee of the Health Research and Development Agency of Ministry of Health Republic of Indonesia (ERC No. LB.02.01/2/KE.227/2019). Written informed consent was taken from the mothers participating in study.

Results



Scheme 1: Themes and sub-themes of complementary feeding implementation

Two themes were defined after analysing the information on CF implementation, which were *early CF* and *inadequate nutritional intake*. The first theme, *early CF*, emerged based on *four sub themes* found.

'Pre-lacteal feeding' is the first sub theme that was discovered based on key words such as 'honey provided to a newborn' (as depicted in the discussion below):

"Those who are not exclusively breastfed are usually given honey or formula milk"

"Exclusive breastfeeding is not easy; newborns are provided with sugar water or honey"

"Newborns are given pure water"

"Regarding this sugar water, I don't know any more even though midwives have already informed it. Because it is usual."

"This is what we were informed, it is too early to introduce food"

The second sub theme is 'not understanding the readiness of children to be fed by CF'. Parents misinterpreted children's responses: infant cries are

commonly considered as due to them being in a hungry condition and therefore need to be given meals. The interview excerpts are as follows:

“If babies cry, parents give it (food) to them. They believe that their babies will be calm with food without considering the harmful effect of early CF.”

“Sometimes, the most important thing is their babies are quiet.”

The next sub theme is ‘*lack of support system*’ from family, particularly careless husbands, and health cadres as an external factor who passively support mothers. Excerpts of the interview are as follows:

“That is mum’s business”

“I only asked ‘Has the baby had a shower? Has the baby been fed?’ (laughing) I didn’t ask further such as what kinds of food...”

“So, if community midwives do not get actively involved, no one supports mothers.”

“Health cadres generally came late to activities (meeting). We used to call them by a mosque loudspeaker but they still did not join in the activities”

The last sub theme that emerges regarding early CF is ‘*lack of knowledge*’ because of the low level of education (the majority of people’s educational level is secondary school) and lack of health education by cadres.

“Cadres did not explain the correct process to prepare CF”

“The majority of mothers and families do not understand how to make suitable complementary foods based on children’s age”

“The majority of mothers are secondary school graduates”

“I think it takes effect, generally they graduated from secondary school level”

The second theme that emerged from the CF implementation issue is *inadequate nutritional intake* during the CF period, which is defined as such because CF implementation was not provided to babies based on the principle of balanced nutrition and was processed improperly. The theme is supported by categories such as the dominance of carbohydrates, lack of vegetables, lack of protein and the use of monosodium glutamate (MSG). Interview excerpts are as follows:

“(Six months) rice”

“Lots of MSG”

“SU*, is now commercial, Pro*in*”

“Only the water (of broth)”

“Still, MSG”

“Cooking soup at their home then we gave the broth to babies”

“Using MSG, family meals are for babies as well. The vegetables (in soup) are for parents and the broth is for babies”

“The babies are given mushy rice without vegetables”

The category of an *improper CF process* is based on unsuitable food texture for age.

“Sometimes we found 2-week old babies were given CF using a bottle. *Tajin* water (rice washing water) is given when 3-months old; *bakwan* (salted fried meal consisting of vegetables and batter) at 4-months old; crisps at 3-months old; and mushy rice at 6-months old”

Discussion

Stunting influences brain development, which can lead to a non-optimal level of intelligence¹³ resulting in the risk of reduced productivity in adulthood. Moreover, stunting makes children more vulnerable to diseases and furthermore, they have a higher risk of suffering from chronic diseases in their adult years. Stunting affects the level of intelligence, vulnerability to disease, causes decreased productivity and then inhibited economic growth, increased poverty and inequality¹⁴. Therefore, efforts to handle and prevent stunting need to be done on a massive scale in order to improve the health status of society. The aetiology of stunting is considered complex but the major cause is a behavioural factor that can actually be prevented and modified¹³. Public health phenomena related to socio-ecological factors, such as stunting, needs an integrated approach to reduce the causative factors and appropriate interventions are needed to solve the problem¹⁵. One of the interventions to prevent stunting that is considered crucial is correct CF implementation for children under five.

Two themes resulted from the discussion during the interview process with informants, which were *early CF implementation* and *inadequate nutritional intake*. Honey is a common pre-lacteal food that is given to newborns in Pintu Padang due to family beliefs or tradition. The majority of respondents believe that honey can make their babies stronger because this is what their ancestors said. Respondents still practise this family tradition and belief. Crying babies are always interpreted as being either hungry or thirsty. It is due to this that the majority of respondents give pre-lacteal food immediately to babies when they cry. Babies fussing is one of the reasons why they introduce CF. Knowledge is vital for the success or failure of exclusive breastfeeding. Early CF can result from a lack of knowledge or understanding with regards to correct food for babies¹⁶.

A qualitative study stated that following the WHO guideline of providing CF at the age of six months to babies is challenging to mothers; although the majority of respondents within the study knew about this guideline. Moreover, the misleading belief that CF can increase the baby's weight makes the recommendation more difficult to obey¹⁷. Generally, babies are introduced to CF at the age of 4.3 months, whereas the mothers are aware that the recommended age by the WHO is six months old¹⁸. In qualitative studies^{19,20}, there are four reasons, which further become themes, for why mothers give CF too early, which are 1) the readiness of children to eat varies from one to another, 2) significant others suggest many different advice, 3) "the way to pay attention to the babies' intestine is by giving meals" and it's interpreted as being a good mother if one practises that advice, and 4) giving CF too early or too late is not an issue because a guideline is only a recommendation not a prerequisite. Testimonials from peers who have practised early CF becomes a source of strength for mothers who have done the same thing.

Building trust with professional health workers is an important factor when applying the right CF, which is recommended by the WHO. Professional health workers inform or advise with regards to CF in accordance with the WHO recommendations, which is that the CF is to be given to six month old babies because at that age they are developmentally ready to start CF and accept it easily and enthusiastically^{14,21}. Lack of support from husbands influences the practice of CF as well. Many husbands consider that food and children are only the mothers' business, whereas raising a child should be teamwork between husband and wife. Being indifferent to the development and growth of children is not a wise attitude.

Nutrient content during the CF period is an important thing to be concerned with in order to maximise infants' growth and development. Within this research, we found that the majority of parents did not provide balanced nutrition in terms of the CF given to their babies (as WHO recommends), which consists of carbohydrates, vegetable and animal proteins, vitamins, minerals and fats. The majority of respondents confessed that they gave a large amount of carbohydrates with only a little vegetables or animal proteins²² with some added MSG, such as crisps. This is contrary to the WHO recommendation to use natural herbs as flavouring for baby food.

Conclusions

This qualitative study discovered two themes from the complementary feeding implementation in Pintu Padang Health Centre, South Tapanuli

District, which are early CF and inadequate nutritional intake.

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