

Family Behavior Deviations in the First Phase of Life and Stunting Incidences in Indonesia

Moh. Husni Thamrin¹, Andi Agustang², Arlin Adam^{3*}, Syamsu A. Kamaruddin², Andi Alim⁴

Doctoral Student, Program Study of Sociology, University of State Makassar¹

Departement of Sociology, Graduate Program, University of State Makassar²

Department of Health Promotion, Faculty of Public Health, University of Pejuang Republic Indonesia³

Department of Nutrition, Faculty of Public Health, University of Pejuang Republic Indonesia⁴

Corresponding author: 3*



Keywords:

Behavioral deviation; Family; Stunting, Child

ABSTRACT

The prevalence of child stunting in Indonesia is 30.8%, exceeding the figure required by WHO as much as 14% which has an impact on the country's gross domestic income. The main cause based on the behavioritic paradigm is the deviation of family behavior in the first 1000 Days of Life phase. The research method uses a mix-method, namely a qualitative method to map the factors that cause behavioural deviations and a quantitative method to examine the relationship between variables causing deviations. The sample is mothers who have to stunt children as many as 303 people. Data were collected by interview, FGD, and observation. Data analysis using chi-square test. Qualitative results show the taxonomy of causes of behavioural deviations including silence in communication between health workers, practical attitudes of families, orientation to modern lifestyles, hereditary experiences, and cultural perceptions. The quantitative results show that the mute variable of health workers has the most significant influence on the occurrence of behavioural deviations with a significance level of 0.028. The ability of health workers to assist families determines the occurrence of behavioural deviations that result in stunting in children. It is recommended to integrate the content of community empowerment into the health education.



This work is licensed under a Creative Commons Attribution Non-Commercial 4.0 International License.

1. Introduction

One of the nutritional problems that are a major concern in Indonesia today is the high number of stunted children. The Directorate of Prevention and Control of Non-Communicable Diseases of the Indonesian Ministry of Health stated in a release on April 9 2018 that one (1) out of three (3) Indonesian toddlers suffer from stunting. Even the 2016 Global Nutrition Report noted that the prevalence of stunting in Indonesia was ranked 108 out of 132 countries. Stunting is a chronic malnutrition problem caused by inadequate nutritional intake for a long time as a result of providing food that is not by the required nutritional needs.

The prevalence of stunting or short stature in children in Indonesia is still far from the WHO standard which requires 20 per cent as a non-public health problem limit for stunting. Nationally, the stunting rate of children in Indonesia is 30.8 per cent [1]. A total of 20 provinces have a prevalence rate of shortness above the national figure. The comparison between the stunting rate in Indonesia nationally and the figure required by the WHO indicates that the country of Indonesia is facing a stunting problem. Although the results of the Indonesian Nutrition Status Study conducted by the Health Research and Development Agency of the Indonesian Ministry of Health in 2021 showed a decrease in the prevalence of stunting to 24.4%, it has not met the target of the National Medium-Term Development Plan 2024, which is 14%. Even if 14% is achieved, it does not mean that Indonesia is stunting-free because the next target is how to reduce the stunting rate to below 2.5%.

The occurrence of stunting problems in Indonesia in the perspective of Skinner's behavioristic thought is influenced by the family environment that shapes maternal behaviour. In the context of stunting, deviant family behaviour occurs in the first phase of a child's life, namely the phase of pregnancy, childbirth, care for newborns, and care for babies aged two years. The external environment that forms the deviation of the mother's behaviour proceeds through the socialization mechanism of values, norms, and traditions in the dynamics of daily social life, both at the individual, family, institutional, and cultural levels. From a behavioristic perspective, the high prevalence of stunting in Indonesia is the result of social dynamic processes that directly construct individuals or families in certain social systems to fulfil children's nutritional needs.

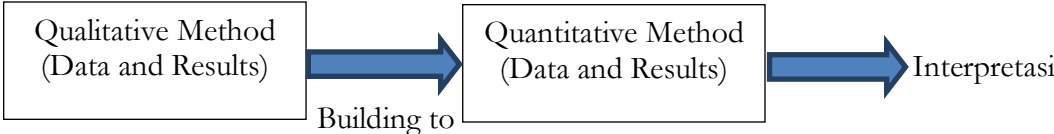
A taxonomic study conducted in the two districts with the highest incidence of stunting in Indonesia shows the fact that some families adopt the behaviour of refusing fish food for their children due to a misunderstanding about fish that causes worms. This understanding is well internalized in various spaces of social dynamics and gains reinforcement or legitimacy from community leaders. Likewise, the refusal of certain foods for pregnant women and delivery assistance by traditional birth attendants appear as implications for the family's understanding of the truth of the myth.

This study aims to uncover and map the factors that cause behavioural deviations for 1000FDL families with child stunting, and then find the most determinant factors causing behavioural deviations, so that appropriate behaviour change strategies can be formulated to accelerate stunting reduction in Indonesia.

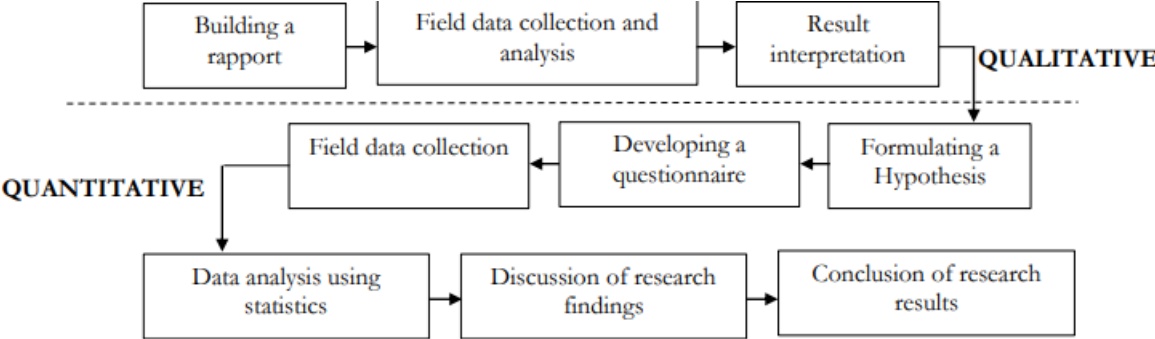
2. METHODS

This study uses a combination method approach (mixed methods). Creswell (2014) states that "Mixed Methods Research is an approach to inquiry that combines or associated both qualitative quantitative forms of research"[2]. The selection of the mixed method was based on a balance of strategic reasons to achieve the research objectives, namely mapping the concepts causing behavioural deviation through qualitative methods and finding the variables causing the deviation in family behaviour that resulted in stunting in children.

Based on this, the mix-method research design uses an exploratory sequential design which means that the research is carried out in two stages, namely the first stage with qualitative methods and followed by the second stage with quantitative methods with the scheme below:



The technical mix-method implementation procedure can be seen in the flow chart below



Qualitative data was collected using in-depth interviews and observations with informants of mothers who have children with events, while quantitative data were obtained through questionnaires on 303 representative samples from among mothers drawn by proportional random sampling. Qualitative data analysis by thematic analysis while quantitative data analysis through hypothesis testing using multiple regression tests. Qualitative data are presented in the form of thematic analysis tables, while quantitative data is presented in the form of bivariate, multivariate, and coefficient of determination tables.

3. FINDINGS

3.1 Qualitative Results

The first stage of research through a qualitative approach found the thematic patterns that encouraged 1000FDL families to deviate from behaviour, as shown in the table below:

Table 1: Classification of meaning and synthesis of thematic patterns causing behavioural deviations based on qualitative findings according to the first phase of the child's life.

| Child's First Life Phase | Meaning Classification Analysis Meaning | Thematic Pattern Synthesis |
|--|--|---|
| Phases of Pregnancy, Childbirth, Newborn Parenting | <ul style="list-style-type: none"> - Checking pregnancy with health workers is considered taboo - Health workers do not initiate the provision of Early Breastfeeding Initiation - Choose a shaman to give birth to because it is considered more familiar - Health workers do not educate - Prohibition and prohibition of certain foods during pregnancy - Colostrum is considered dirty and unclean | The role of health workers is very important in overcoming the problem of behavioural deviation related to the knowledge, perceptions, attitudes, and actions of the 1000FDL family which are still culturally based. |
| | <ul style="list-style-type: none"> - Remote access to services - Perception of expensive labour costs | The practical attitude of the family allows mothers to implement actions that are |

| Child's First Life Phase | Meaning Classification Analysis Meaning | Thematic Pattern Synthesis |
|--|--|--|
| | <ul style="list-style-type: none"> - Check for pregnancy is not necessary - Forced to check pregnancy - No support from husband | contrary to the norms of health services aimed at preventing and overcoming stunting in children. |
| | <ul style="list-style-type: none"> - Cultural-based family understanding - The family mindset is naturalistic - Religious prohibition - Immunizations cause illness in babies - Mother does not consider it a necessity | The form and mindset of the 1000FDL family in understanding and perceiving exclusive breastfeeding and immunization are shaped by cultural and personal experiences. |
| Parenting phase for babies aged 0-6 months | <ul style="list-style-type: none"> - Influence of mother's lifestyle - Exposure to formula milk promotion - Health workers as formula milk advertising agency - Mother's busyness/work (formal and informal) Regional regulation instruments are not effective because they are not supervised - Babysitting by another family | The mothers of the 1000FDL family are experiencing a modernization of behaviour that puts forward lifestyle-oriented actions. |
| Parenting Phase Two-year-old baby | <ul style="list-style-type: none"> - Provision of Supplementary Food for Integrated Service Posts, cadres, and midwives - Integrated Service Post for services for sick children - No Supplementary Feeding support from the village government - Babies are brought for two years/children are allowed to interact with nature to be healthy - Illegal immunizations - Afraid/worried to provide stimulation - Experience is the basis for the formation of a mother's understanding | The mother's behavior departs from the way she understands the practice of Supplementary Feeding, growth and development checks, and stimulation of toddlers. The understanding of the 1000FDL mother/family is cultural because it is still based on past experiences and relies on the truth of myths. |

Based on the taxonomic and thematic analysis, the research hypothesis was formulated to be tested using the chi-square technique, namely 1). There is a relationship between the muteness of health workers with the occurrence of behavioural deviations in the mother, 2) There is a relationship between the practical attitude of the family to the deviation of the mother's behaviour, 3) There is a relationship between the orientation of the family's modern lifestyle to the deviation of the mother's behaviour, 4) There is a relationship between the family's hereditary experience of deviation mother's behaviour, and 5) There is a relationship between the cultural perception of the community and the deviation of the mother's behaviour.

3.2 Quantitative Results

Table 2: Relationship between Factors Causing Behavior Deviation for Mothers of 1000FDL family

| Variable Study | Behavioral Deviation | | | | Total | | p |
|--|----------------------|-------------|-------------|-------------|------------|------------|-------|
| | Deviate | | Not Deviate | | n | % | |
| | n | % | n | % | | | |
| Health Worker Silence | | | | | | | |
| Mute | 27 | 77,1 | 8 | 22,9 | 35 | 100 | 0,000 |
| Not Mute | 123 | 45,9 | 145 | 54,1 | 268 | 100 | |
| Family Practical Attitude | | | | | | | |
| Practical | 67 | 74,4 | 23 | 25,6 | 90 | 100 | 0,000 |
| Normative | 83 | 39 | 130 | 61 | 213 | 100 | |
| Lifestyle Orientation | | | | | | | |
| Have | 72 | 74,2 | 25 | 25,8 | 97 | 100 | 0,000 |
| Do Not Have | 78 | 37,9 | 128 | 62,1 | 206 | 100 | |
| Hereditary Parenting Experience | | | | | | | |
| There is | 97 | 70,3 | 41 | 29,7 | 138 | 100 | 0,000 |
| There isn't any | 53 | 32,1 | 112 | 67,9 | 165 | 100 | |
| Culturally Based Perception | | | | | | | |
| There is | 99 | 86,8 | 15 | 13,2 | 114 | 100 | 0,000 |
| There isn't any | 51 | 27 | 138 | 73 | 189 | 100 | |
| Jumlah | 150 | 49,5 | 153 | 50,5 | 303 | 100 | |

The results of statistical tests using the chi-square test found that the significance value for all variables causing behavioural deviation was 0.000 smaller than $= 0.05$ which means that the muteness of health workers, family practical attitudes, lifestyle, hereditary experience, and cultural perceptions have a relationship significant or are factors that cause behavioural deviations for families with stunting in children.

Based on the multivariate test, among the causes, it was found that the muteness of health workers is the variable that has the strongest relationship or is the most determinant variable, as shown in table 3 below:

Table 3: Multivariate analysis between variables causing behavioural deviation

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---------------------|--------------------------|----------|-------------|-------------|-----------|-------------|---------------|
| Step 1 ^a | Power Silence(1) | -1.178 | .537 | 4.815 | 1 | .028 | .308 |
| | Practical Attitude(1) | -.982 | .348 | 7.959 | 1 | .005 | .374 |
| | Lifestyle(1) | -.665 | .345 | 3.710 | 1 | .054 | .514 |
| | Hereditary Experience(1) | -1.211 | .315 | 14.764 | 1 | .000 | .298 |
| | Cultural Perception(1) | -2.527 | .347 | 53.084 | 1 | .000 | .080 |
| | Constant | 2.024 | .265 | 58.241 | 1 | .000 | 7.568 |

4. DISCUSSION

The attitude and behaviour of officers who are less professional in pregnancy and childbirth services hurt the health of newborns which will affect the next child's growth and development process. This finding confirms that the behaviour of health workers determines the occurrence of behavioural deviations because many of the mother's deviant actions stem from a misunderstanding of the meaning of pregnancy and childbirth. The basic skills that must be possessed by midwives in childbirth services are not only technical in childbirth but also need to be equipped with communication skills to be able to motivate mothers in the framework of behaviour change, especially behaviour that is by the rules and norms of stunting prevention and control [3].

The attitude of the family's practicality arises because the health services provided by the midwife are

considered complicated, require a large amount of money, and are far from where they live. With this assumption, the mother's decision to check pregnancy and childbirth is assisted by a traditional healer. The pattern of family relationships with traditional healers shows a high strength of solidarity.

The concept of social solidarity according to [4] is a social process created because of equal values, equal challenges and equal opportunities based on hope and trust. This understanding or definition is indeed based on the ability of individuals or groups to work together in an entity that will produce social solidarity. Solidarity emphasizes the state of relations between individuals and groups and underlies a common bond in life supported by moral values and beliefs that live in that society. The tangible form of their joint relationship will give birth to an emotional experience, thus strengthening the relationship between them.

The orientation of the modern lifestyle played by the mother influences the mother in the practice of breastfeeding for reasons of wanting to look fashionable. The motive for fashionable appearance makes mothers not want to breastfeed, especially if it is supported by the availability of manufacturer's milk which is promoted through advertisements.

The influence of advertising at its peak disciplines all individual actions that lead to the formation of a consumptive lifestyle. People who experience a downturn due to the construction of a consumptive lifestyle are poor because the resources they have are unable to facilitate new needs that are deliberately created by the capitalists. This is what explains the phenomenon of poor people who are malnourished because they make wrong decisions about balanced nutrition. It is as if nutritionally balanced food must be produced by industry, branded, with good packaging, and purchased in sales windows [5].

Experiences handed down from the family become a tradition that guides mothers in the practice of maintaining pregnancy, childbirth, and baby care. This experience is obtained by the mother from the information provided by the family and is reinforced by the basic values that are believed together. That is, the social learning process occurs in the family environment, and then getting social reinforcement through the similarity of socio-cultural values allows the message conveyed to be interpreted strongly by the mother as an individual.

The results of this study are in line with research conducted by [6] who found that socio-cultural pregnancy care which is still believed and carried out for generations by the Makassar tribal community is the 7-month ceremony or also known as the *Appasilli* traditional ceremony. Pregnant women avoid or abstain from eating yellow fruit, such as pineapple, banana, and papaya. They believe that consuming the fruit can cause havoc for her and the baby.

Research conducted by [7] reveals that food taboos in pregnant women are related to fear of a difficult, painful, or miscarriage of birth. Seven types of food are avoided for consumption by women in the Barito area of South Kalimantan, namely: ice, twin bananas, young coconuts, coconut water, young pineapples, fish, and tauman fish. In another study with a similar theme in Jeneponto, South Sulawesi, [8] found a higher number of food taboos, consisting of plants such as tala fruit, moringa leaves, eggplant; and several fish such as rays, octopus and squid. There are many taboo foods for pregnant women and the reasons given by respondents do not always make sense to the general public. For example, papaya is taboo because it will make it difficult for the baby to come out, the child in the stomach will be sick, will feel pain during childbirth, and so on. Squid and squid are very good for pregnant women because they are a high source of protein.

Literature studies show that many people from various cultures believe that there is a relationship between food and postpartum maternal health which is wrong. They provide protective protection for postpartum mothers so that the decision to consume food is determined by those who are considered to have authority, namely husbands, parents and people who have abilities such as shamans [9]. Traditionally, family decisions are made by the husband, but the extended family, especially the mother or mother-in-law, will also influence decision-making, especially regarding the selection of foods that can be consumed by postpartum mothers because mothers or mothers-in-law are considered to know more about what to do during the postpartum period.

Family experiences that are passed down to family members undergo a process of continuous repetition so that they are considered truths that do not need to be changed. This type of knowledge pattern requires an intensive behaviour change communication process because it is deeply embedded and involves the realm of belief. This view is by Skinner's behavioristic postulate regarding repetition of behaviour which is positioned as strong conditioning to shape one's behaviour.

The perception of health and illness in the family seems to be culturally influenced. A mother's level of knowledge only understands objects naturally, namely understanding based on traditional thinking patterns. This perceptual phenomenon stems from the influence of beliefs on myths. Culturally, there is an understanding of the growth of babies who are allowed to freely interact with nature. The goal is that the baby has a fresh and strong body because nature describes a harsh life.

According to [10] that the principle of the nature of nature, means that in essence humans are creatures, namely one with the nature of nature. Humans cannot be separated from the nature of nature and will be happy if they can unite themselves with the nature of nature that contains progress. Therefore, each individual must develop properly with the universe.

5. Conclusion

This study concludes that culturally based family knowledge systems play a role in the formation of maternal behavioural deviations in the form of understanding, perceptions, beliefs, beliefs, and practices that are contrary to stunting prevention norms. Factors that cause deviations in maternal behaviour are the silence of health workers, practical family attitudes, modern lifestyle orientation, hereditary experience, and cultural perceptions where the determinant factor is the silence of health workers. Therefore, an effective change strategy is to increase the capacity of community empowerment for health workers.

6. References

- [1] Kemenkes R I. Hasil Utama Riset Kesehatan Dasar (Riskesdas) 2018. Jakarta: Kementerian kesehatan Republik Indonesia Badan Penelitian dan Pengembangan Kesehatan; 2018.
- [2] Creswell JW. Research Design Pendekatan Kualitatif, Kuantitatif & Campuran. Yogyakarta: Pustaka Pelajar; 2014.
- [3] Sinaga EW, Fauza R, Wahyuni W, Hutabarat EN, Rambe NL, Simamora DL, et al. Mutu Pelayanan Kebidanan. Medan: Yayasan Kita Menulis; 2020.
- [4] Durkheim E. The Division of Labor in Society. In: Social Stratification. Routledge; 2019. p. 178–83.

- [5] Alim A, Andi Agustang AA, Adam A. Transformation of Consumption Behavior of the Poor in the Case of Malnutrition: Health Sociology Study with Participatory Approach in Makassar City, Indonesia. *Open Access Maced J Med Sci*. 2021;9(E):598–607.
- [6] Nurjanna. Determinan Sosial Budaya Kejadian Stunting pada Suku Makassar di Kecamatan Turatea Kabupaten Jeneponto. Universitas Islam Negeri Alauddin Makassar; 2019.
- [7] Sukandar D. Makanan Tabu di Barito Kuala Kalimantan Selatan. *J Gizi dan Pangan*. 2007;2(2):44–8.
- [8] Sukandar D. Makanan Tabu di Jeneponto Sulawesi Selatan. *J Gizi dan Pangan*. 2007;2(1):42–6.
- [9] Baumali AM. Pemenuhan Zat Gizi Ibu Nifas dalam Budaya Sei pada Masyarakat Suku Timor Dawan di Kecamatan Molo Selatan Kabupaten Timor Tengah Selatan. Universitas Gadjah Mada; 2009.
- [10] Suparlan S. Masyarakat: Struktur Sosial, Individu, Keluarga dan Masyarakat. Jakarta: Akademi Presindo; 1984.