

# Determinants of Toddler Development Factors in Terms of Biological, Psychosocial, Family and Customary Aspects in Padang City

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## ABSTRACT

UNICEF data in the 2017 year, nearly 200 million children in developing countries have stunted growth and development due to malnutrition. In addition, a report from the World Health Organization (WHO) shows that Indonesian public health is the lowest in ASEAN, which is ranked 142 out of 170 countries. Factors that influence growth and development are biological, psychosocial, family, and customs. This study aims to the determinants of growth and developmental factors for children under five in terms of biological, psychosocial, family and customs aspects. This study uses an analytic observational design with a comparative cross-sectional approach. The population of this study is mothers who have toddlers aged 6 to 23 months in Padang. Data was collected by distributing questionnaires and WhatsApp. The hypothesis test used is Chi-Square. This study showed a relationship between biological, psychosocial, family, and customs factors with the growth and development of toddlers.

**Keywords:** *Toddler Development, Biological Factors" Psychosocial Factors" Family Factors" Customs Factors.*

## 1. INTRODUCTION

Human Resource Development (HR) is the key to Indonesia going forward. The starting point for human resource development is to ensure the health of pregnant women, infant health, toddler health, and school-age children's health. This is a golden age to produce superior Indonesian people in the future. It must be properly maintained. Do not let stunting, maternal mortality, or infant mortality increase. We have a big task there [1].

UNICEF data in 2017, nearly 200 million children in poor countries have stunted growth and development due to malnutrition. In addition, a report from the World Health Organization (WHO) shows that Indonesian public health is the lowest in ASEAN, which is ranked 142 out of 170 countries [2].

Data from the Padang city health official stated that in 2018 the coverage of health services for children under five in the city of Padang was 83.1% or 67,736 of the total target of 81,473. Thus, it can be said that there are still around 9.4% or 14,737 children under five in the city of Padang, whose rights to obtain adequate health have not been fulfilled [3].

Growth is a change in the number due to the addition of cells and the formation of new proteins, thereby increasing the number and size of cells in all parts of the body. Development is the increase in the ability (skills) of more complex body structures and functions, in a regular and predictable pattern, as a result of the maturation process. Development concerns the process of differentiation of body cells, body tissues, organs and organ systems that develop in such a way that each can fulfil its function. Factors that influence growth and development are biological factors, psychosocial factors, family factors and customs [4].

Research by Purwandari H (2011), shows that family support which is manifested in the provision of stimulation or stimulation of growth and development in infants is proven to be able to increase infant development scores in the intervention group. Babies and toddlers need good stimulation. The toddler phase is a golden phase but also vulnerable in its development. Lack of stimulation will result in delayed socialization, language, fine and gross motor skills [5].

Factors that influence growth and development are biological factors (race/ethnicity, gender, age, nutrition, health care, susceptibility to disease, chronic health conditions, metabolic function, hormones), psychosocial factors (stimulation, learning motivation, rewards or reasonable punishment, peer groups, stress, school, love and affection, quality of parent-child interaction), family factors and customs (job/family income, father/mother education, number of siblings, gender in the family, household stability, personality) mother and father, parenting patterns, customs, religion, urbanization, political life) [4].

Based on the above phenomena, this study aims to determine the determinants of plant and developmental factors for toddlers in terms of biological, psychosocial, family and customs aspects in the city of Padang.

What is different in this study is knowing the relationship between the growth and development of toddlers. In this study, the risk factors studied were biological factors (race/ethnicity, gender, age, nutrition, health care, susceptibility to disease, chronic health conditions), psychosocial factors (stimulation, motivation, quality of parent-child interaction), family and customs (job/family income, father/mother's education, number of siblings, gender in the family, parenting patterns, customs, religion). This study looks at how far these risk factors are related so that they can predict the risk of toddler growth and development. In addition, several studies on growth and development factors for toddlers are still few, especially those carried out in the city of Padang

## II. METHODS

This study uses an analytic observational design with a cross-sectional approach. The population of this study is mothers who have toddlers aged from 6 to 23 months in Padang, the total sample is 70 respondents with the purposive Sampling Method. [6].

Data was collected by distributing questionnaires and WhatsApp. While still applying the covid 19 health protocol to find out the characteristics of respondents and observations after researchers took height measurements using a height measuring device (Microtoise) with an accuracy of 0.1 cm. The hypothesis test used is Chi-Square and logistic regression

## III. RESULT AND DISCUSSION

Based on table 1 under, show the respondent characteristics:

23 % of respondents have children who have growth and development disorders, More than half (56 %) of respondents have children who have difficulty eating, 50% of children often consume snacks and 25% of sweets and As many as 54 % of children often use cellphones/androids

Characteristics	f	Percentage
<b>Growth and development</b>		
Normal	54	77 %
Disorders	16	23 %
<b>Dietary habit</b>		
Easy	31	44%
Difficulty	39	56 %
<b>Type of foods</b>		
Consume snacks	35	50 %
Consume sweets	18	25 %
<b>Use cellphones /androids</b>		
Always	38	54%
Seldom	20	29 %
Never	12	17 %
<b>Total</b>	<b>70</b>	<b>100 %</b>

Table 1. Respondent characteristics

Based on table 2 under, show that a relationship between biological, psychosocial, family, and customs factors with the growth and development of toddlers

Variable	The growth and development of toddlers
Biological	r = 0,062 p = 0,000
Psychosocial	r = 0,758 p = 0,000
Family	r = 0,435 p = 0,000
Customs aspects	r = 0,824 p = 0,000

Table 2. Relationship variables

The biological factors show that race/ethnicity, gender, age, nutrition, health care, susceptibility to disease and also chronic health conditions and 75% of children often have a fever. Food plays an important role in child development. Children's needs are different from adults, because food for children, apart from daily activities, is also for growth. Family food security affects the nutritional status of children. Family food security includes food availability and equitable distribution of food within the family, although cultural interests may collide with the biological interests of family members. For example, in certain societies, food is prioritized for fathers over children. One important aspect that needs to be added is food safety, which includes the release of food from various physical, chemical and biological "poisons" that are increasingly threatening human health. At this time, there are many foods that contain additives circulating. Infants and toddlers are very susceptible to disease, so the infant and toddler mortality rate are also high, especially infant mortality. Susceptibility to disease can also be reduced by providing good nutrition including breastfeeding, improving sanitation and providing immunizations.

The psychosocial factors show 64 % never give praise to children when children do positive things and 8.3% always praise the child even though the child is wrong. Stimulation from the environment is important for children's growth and development. Children who receive directed and regular stimulation will develop faster than children who are not stimulated. Stimulation will also optimize the genetic potential of the child. A conducive environment will encourage good physical and mental development, while a less supportive environment will result in the development of children below their genetic potential. Reasonable reward or punishment (reinforcement/reward and punishment) If the child does the right thing, we are obliged to give rewards, for example praise, kisses, caresses, applause and so on. The reward will create a strong motivation for the child to repeat the good behavior. Meanwhile, punishing in a reasonable way, if a child makes a mistake, is still justified. The punishment must be given objectively along with an explanation of the meaning and purpose of the punishment; not punishment for venting hatred and irritation on children, or child abuse (abuse). Children are expected to know what is good and what is not so that children's self-confidence can arise, which is important for later personality development.

About the family factors show Family support that is manifested in the provision of stimulation of growth and development in infants is proven to be able to increase infant development scores. Babies and toddlers need good stimulation. The toddler phase is a golden phase but also vulnerable in its development. Lack of stimulation will result in delayed socialization, language, fine and gross motor skills. Parenting patterns applied in the family vary, such as a passive parenting pattern, when children grow up, they tend to be less responsible, have poor emotional control and often have low achievements in doing things. Meanwhile, children raised with democratic parenting have better personal and social adjustments, children are more independent and responsible.

The customs aspects show 10 respondents think fat children are better than thin children. So that parents and even grandmothers always give food to children under the age of 6 months with solid foods. They assume that children under 6 months are fussy and cry because they are hungry. The customs that apply in each region will affect the growth and development of children. Likewise, norms and taboos that apply in society, such as not being allowed to eat meat later can cause worms, can affect the growth and development of children.

#### IV. CONCLUSIONS & SUGGESTIONS

This study showed a relationship between biological, psychosocial, family, and customs factors with the growth and development of toddlers. The dominant factor is customs aspects. Therefore, it is necessary to increase

cross-sectoral collaboration and communicate behavior change hereditary habits or traditions that can affect children's growth and development, especially in offering food, parenting and family factors in charge of the program both at the puskesmas and the health office.

#### AUTHORS' CONTRIBUTIONS

The author's contributions in this study include preliminary surveys, proposal makers, licensing administrators, conducting research data collection activities, conducting data analysis, making reports, and making research manuscripts for publication.

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