

## Maternal anxiety to visit the integrated health center and child food intake with wasting

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### ABSTRAK

**Latar Belakang:** Pada era pandemi, kekhawatiran dan kecemasan yang ditakutkan yaitu anak dan dirinya terpapar COVID-19. Ibu yang tidak menimbang balitanya ke Posyandu dapat menyebabkan tidak terpantaunya pertumbuhan dan perkembangan balita serta asupan makan balita. Penelitian ini bertujuan mengetahui hubungan antara kecemasan ibu untuk datang ke posyandu dan asupan makan balita dengan kejadian wasting di era pandemi pada wilayah kerja Puskesmas Purwokerto Selatan

**Metode:** Penelitian menggunakan metode studi observasional dengan pendekatan cross sectional. Penelitian dilakukan di Kelurahan Teluk, Purwokerto Selatan pada bulan Juni-Juli 2021 dengan mengikutsertakan 64 ibu yang memiliki balita berusia 6-59 bulan. Pengumpulan data menggunakan kuesioner kecemasan yang dilakukan di rumah responden dan melalui telepon, kejadian wasting dilihat dari nilai z-score BB/TB balita dan recall 2x24 jam untuk melihat asupan makan balita. Analisis hasil menggunakan uji Fisher's exact.

**Hasil:** Sebanyak 70,3% balita berusia 6-35 bulan dan sebanyak 56,3% merupakan anak pertama. Hasil analisis menunjukkan tidak ditemukan hubungan yang signifikan antara kecemasan dengan kejadian wasting ( $p$  value = 0,125) serta antara asupan makan dengan kejadian wasting ( $p$  value = 0,406).

**Kesimpulan:** Tidak ada hubungan antara kecemasan ibu untuk datang ke posyandu dan asupan makan balita dengan kejadian wasting pada wilayah kerja Puskesmas Purwokerto Selatan.

**KATA KUNCI:** asupan; kecemasan; posyandu; wasting

### ABSTRACT

**Background:** During the pandemic, the concern and anxiety felt by the mother is the fear of the child and herself exposed to COVID-19. Mothers who do not weigh their toddlers to Integrated Health center can cause unmonitored growth and development also feeding intake of toddlers. The purpose of the study was to find out the relationship between maternal anxiety to come to Integrated Health center and infant feeding intake with wasting incident in the pandemic era in South Purwokerto Health Center working area.

**Methods:** Observational study using a cross sectional approach was done in Teluk Village, South Purwokerto in June-July 2021. Sixty-four mothers who had toddlers aged 6-59 months were included in the study. Data collection was conducted in respondents' homes and over telephones due to the implementation of lockdown. Anthropometrics measurements were done to measure toddlers wasting status. To assess energy adequacy, a 2x24-hour recall was done. Using Fisher's exact test

**Results:** According to the result, 70.3% of toddlers aged 6-35 months and 56.3% received the first birth order. There was no significant association between anxiety and wasting incidence ( $p$  value = 0.125). There was no significant association between feeding intake and wasting incidence ( $p$  value = 0.406)

**Conclusions:** There is no association between maternal anxiety to visit the integrated health center and child food intake with wasting.

**KEYWORDS:** anxiety; intake; integrated health center; wasting

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## INTRODUCTION

In early 2020, the world was hit with a new type of virus that first spread in Wuhan, Hubei Province, China. To prevent the transmission of the virus, the Government implemented Large-Scale Social Restrictions (PSBB) in some areas (1). The social conditions of the community during the COVID-19 pandemic have quite an impact on the health services of infants and toddlers in Integrated Health center, including monitoring growth during the COVID-19 pandemic which tends to be neglected due to the concentration of services and overall health aimed at COVID-19. The anxiety of the mother to come to Integrated Health center is afraid of the child and herself infected with COVID-19. Mothers who do not routinely go to Integrated Health center experience the child's weight is not monitored properly, so it is still found that the child is malnourished and malnourished status. This situation can be avoided if the mother regularly comes to Integrated Health center, because the mother will get maternal and child health counseling from health care workers, so as to improve the mother's understanding of the nutritional status, growth and development of children (2). In addition to the role of Integrated Health center and maternal involvement, toddler food intake also needs to be considered to optimize its growth (3).

Based on toddler weighing data in August 2020, the number of toddlers aged 0-5 years weighed as many as 3,023 toddlers from

3,916 toddlers is 77.1%, while based on toddler data weighed during the pandemic in February 2021, the number of toddlers aged 0-5 years weighed as many as 2,803 toddlers from 3,647 toddlers is 76.8%, resulting in a decrease of 0.3%. Based on maternal arrival data to Integrated Health center, Teluk Village which has the lowest maternal arrival rate to Integrated Health center, which is 78.1%, then researchers use the Bay Village to be a place of research. Based on toddler weighing data in January 2021, the prevalence of toddlers with undernutrition (BB according to TB < 3 elementary) is 30.9%. During this pandemic, the arrival of mothers to bring their children to Integrated Health center decreased. The purpose of this study was to find out the relationship between maternal anxiety to come to Integrated Health center and toddler eating intake with the incidence of wasting in the pandemic era in the working area of South Purwokerto Health Center.

## MATERIALS AND METHODS

This research has obtained an ethical clearance register number from the Health Research Ethics Commission of the Faculty of Health Sciences, Jenderal Soedirman University with the number 374/EC/KEPK/IV/2021. The type of research used is an observational study. With a cross sectional approach to find out the incidence of wasting and the intake of toddlers in the Bay Village area. The research was conducted in the South Purwokerto Health Center area,

namely in Teluk Village area and was carried out in June-July 2021.

The study subjects were mothers who had toddlers aged 6-59 months in the Gulf Village. The sample number of this study as many as 64 respondents using simple random sampling techniques. Data analysis is done with univariate analysis that explains the characteristics of each variable studied. The bivariate analysis used *Fisher's Exact* test to look at the relationship of anxiety to wasting incident using anxiety questionnaires and energy intake relationships using a 2x24-hour *recall*. The dependent variables in the study were maternal anxiety to come to Integrated Health center and toddler feeding intake in the pandemic era, while the bound variable was the incidence of toddler wasting.

**RESULTS AND DISCUSSIONS**  
**Characteristics of Respondent**

In this study, the distribution of respondents' characteristics in this activity was grouped into the age and order of children, namely as follows:

**Table 1. Characteristics of Toddlers**

Category	n (%)
Age of the child (month)	45 (70.3)
6-36 months	19 (29.7)
37-59 months	
Birth Order	
1	36 (56.3)
2	21 (32.8)
≥3	7 (10.9)

Based on the **Table 1**, it shows that as many as 70.3% of toddlers aged 6-35 months and as many as 56.3% are first children. The distribution of respondents' characteristics in this activity is grouped into age, occupation, the

last education of the mother and father of the toddler.

From the results of the study as many as 70.3% of toddlers aged 6-36 months. The period of introduction of food in toddlers begins at the age of 6 months to 3 years which is a transition period from breast milk to solid foods where there are susceptible malnutrition and infections. In addition, it is time to instill the concept of food that will affect the eating habits of toddlers (4).

From the results of the study, as many as 32.8% of toddlers are the first child. The number of children in the family affects the availability of family food. Having many children in families with low economic status has a chance of children suffering from malnutrition (5).

Based on **Table 2**, as many as 79.7% of mothers aged 20-35 years. Mothers aged 35 years and above despite experience but body condition and physiological function have begun to decline so that the risk of causing the mother to give birth to a baby low birth weight (6). In the age range of 20-35 years a person is mature in thinking about it so that with the maturity of one's age and thinking, the mother will more easily receive knowledge and information about stimulating child development and the mother can apply it at home (7).

Based on the results of this study, as many as 71.9% of mothers and 65.6% of fathers of toddlers with secondary education. One of the important factors in the child's developmental body, with a good education, parents can receive all the information from outside, especially about how to care for the child well. The higher the level of education of parents, the higher the level of concern for health, especially information about maintaining nutritional status (8).

**Table 2. Characteristics of Toddler Parents**

Variable	n (%)
Mother's Age (years)	
20-35	51 (79.7)
>35	13 (20.3)
Mother's Education	
Not finished SD	1 (1.6)
Primary education	7 (10.9)
Secondary education	46 (71.9)
Higher Education	10 (15.6)
Father's Education	
Not finished SD	1 (1.6)
Primary education	12 (18.8)
Secondary education	42 (65.6)
Higher Education	9 (14.1)
Mother's Work	
Labour/Farm labour	1 (1.6)
Private employees	5 (7.8)
Civil Servants/TNI/POLRI	4 (6.3)
Housewife/not working	50 (78.1)
Others	4 (6.3)
Mother's Work	
Farmer/breeder/fisherman	1 (1.6)
Labour/Farm labour	15 (23.4)
Private employees	29 (45.3)
Civil Servants/TNI/POLRI	13 (20.3)
Others	6 (9.4)

Based on the results of this study, as many as 78.1% of mothers are not working or as housewives, as many as 53.1% and as many as 45.3% of toddler fathers work as private employees. Parents' work is very influential on the purchasing power and nutritional value of food contained, this can be seen with good socioeconomic children, of course, the fulfillment of nutritional needs is quite good compared to children with less socioeconomic (9).

#### **Visit to Integrated Health center, anxiety to come to Integrated health center in the era of pandemic, energy intake and toddler wasting incident**

Based on the table above, all mothers visited Integrated Health center before the pandemic (100%) and there was a decrease in visits to Integrated Health center during the pandemic to 87.5%. A

total of 56.3% of mothers are anxious to come to Integrated Health center in the Pandemic era, as many as 35.9% of toddlers intake is less and 64.1% of intake is sufficient and wasting incident in the working area of South Purwokerto Health Center by 10.9%.

Based on the results of research from **(Table 3)** it is known that all mothers visit Integrated Health center before the pandemic (100%) and as many as 87.5% of mothers always visit Integrated Health center during the pandemic. The routine of the mother in visiting Integrated Health center will be very useful as knowing the weight to know the nutritional status of the child by weighing each month in order to detect early the child's health status, so that further intervention can be determined immediately (10).

**Table 3. Visits, Anxiety, Energy Intake and Wasting Incident**

Category	n (%)
Visit the integrated health center Before the Pandemic	
Yes	64 (100)
No	0 (0)
Visit the integrated health center during the Pandemic	
Yes	56 (87.5)
No	8 (12.5)
Anxiety comes to visit the integrated health center	
Anxious	36 (56.3)
Not anxious	28 (43.8)
Energy intake	
Less intake	23 (35.9)
Sufficient intake	41 (64.1)
Wasting incident	
Wasting	7 (10.9)
Usual	57 (89.1)

There were four respondents who measured the weight and height / length of the child's own body. Previously it has been given knowledge about how to measure well by Integrated Health center cadres. So that later, the data that has been taken will be given to Integrated Health center cadres and will be forwarded to the puskesmas to be entered into the data collection.

Based on the results of the study, as many as 56.3% of mothers are anxious to come to Integrated Health center in the pandemic era. In the implementation of Integrated Health center the Integrated Health center participants have some concerns and anxiety that is felt which the mother's greatest anxiety is the fear of the child and herself infected with COVID-19. 39.1% of mothers strongly agree that they cannot sleep if they imagine themselves or their child being exposed to COVID-19.

This anxiety can be overcome with the help of Integrated Health center cadres who always provide motivation to the mothers of Integrated Health center participants and ensure that the implementation of Integrated Health center is based on health protocols set by the

Government (11). At Integrated Health center kencur, wortel, sawi and seledri, cadres continue to motivate the mother of toddlers to always come to Integrated Health center by ensuring that the implementation of Integrated Health center is based on established health protocols.

Based on the results of the study, as much as 35.9% of toddler energy intake is less and as much as 37.5% of toddler energy intake is more. If the body does not use energy then the body will store it into storage compounds, such as body fat. The more energy consumed from the need, if not used will be stored and there will be weight gain. Conversely, the energy consumed is less than necessary, the energy deposits will drop and there will be weight loss.

**Anxiety relationship comes to integrated health center with toddler wasting incident**

Fisher's Exact test result was obtained,  $p = 0.125$ . This means that the value of  $p$  is greater than  $\alpha$  (0.05). The value  $p > 0.05$ , it can be concluded that  $H_a$  was rejected.

**Table 4. Anxiety Relationships Coming to Integrated Health center with Incident**

Anxiety	n (%)		P value
	Wasting	Usual	
Anxious	6 (12.8)	30 (83.3)	0.125
Not worried	1 (5.9)	27 (96.4)	

It can be said that there is no significant association between maternal anxiety to come to Integrated Health center and wasting incident in the working area of South Purwokerto Health Center.

Based on the results of the study, there was no association between maternal anxiety to come to Integrated Health center and wasting incident in the working area of South Purwokerto Health Center. This result is in line with the results of The Fitri study (2018) which is no association between the active mother's visit to Integrated Health center with the nutritional status of toddlers. The likely factor is due to the presence of other factors that directly affect knowledge so that the increase in maternal information related to infant nutrition, it can change the mother's behavior in nutritional intake which can automatically change the nutritional status of toddlers for good. Parental anxiety during the

COVID-19 pandemic could be due to parental ignorance in the prevention of COVID-19, especially when following Integrated Health center. This anxiety is affected by the threat of COVID-19 to the lives of mothers and babies, as well as concerns about unmet prenatal care needs, relationship tensions, and social isolation due to the COVID-19 pandemic (12).

#### **Relationship of energy intake with toddler wasting incident**

Fisher's Exact test result was obtained,  $p=0.460$ . This means the value of  $p$  is greater than (0.05). The value  $\alpha p > 0.05$ , it can be concluded that  $H_a$  was rejected. It can be said that there is no relationship between the energy intake of toddlers and the incidence of wasting in the working area of South Purwokerto Health Center.

**Table 5. Relationship of Energy Intake with Wasting Event**

Energy intake	n (%)		P value
	Wasting	Not Wasting	
Less	1 (4.3)	22 (95.7)	0.460
Adequate	6 (14.6)	35 (85.4)	

Based on the results of the study, there was no association between the energy intake of toddlers and the incidence of wasting in the working area of South Purwokerto Health Center. These results are in line with maradesa's (2014) study, where there was no significant association between energy intake and nutritional status. Wasting is caused by a naturally occurring energy intake deficit with respect to food insecurity and hunger (13).

More energy intake, more in the wasting group because toddlers prefer to eat snacks rather than regular meals. Snack habits tend to be part of the culture of one family and children often do not pay attention to the nutritional value, cleanliness, and safety of food from the snacks consumed (14). In this study, snacks are widely consumed by toddlers, namely, sausages, tempura, nuggets, ice cream, tea glasses, pop ice, brownies, chitato, taro, gopotato, chiki french fries, bengbeng, and plant-based wafers.

## CONCLUSIONS AND RECOMMENDATIONS

There is no relationship between the mother's anxiety to come to Integrated Health center and the toddler's eating intake with the incidence of wasting in the working area of South Purwokerto Health Center. Thus it is expected that mothers who have toddlers to be more active in Integrated Health center activities every month to monitor the nutritional status of children with routine weight weighing and not anxious to come to Integrated Health center.

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