

# Hubungan Pemberian ASI dan MPASI Ibu terhadap Kejadian *Stunting* pada Balita di Kelurahan Kalirungkut Surabaya

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## ABSTRAK

**Latar Belakang:** Prevalensi *stunting* di Indonesia masih tergolong tinggi. Kota Surabaya yang menjadi kota metropolitan kedua memiliki fasilitas cukup memadai tetapi menurut data yang didapat Surabaya memiliki prevalensi *stunting* hampir 30%. Beberapa faktor penyebab *stunting* masih terjadi di kota besar yaitu pemberian gizi. **Tujuan:** Mengidentifikasi hubungan pemberian ASI dan MPASI Ibu terhadap Kejadian *Stunting* pada Balita di Kelurahan Kalirungkut Surabaya. **Metode:** Desain penelitian yang digunakan adalah penelitian observasional analitik dengan pendekatan *case control*. Populasi penelitian ini adalah ibu yang mempunyai anak yang datang ke Posyandu di Kelurahan Kalirungkut Surabaya pada bulan Januari-Februari 2023, pengambilan sampel dilakukan secara *consecutive sampling* dengan jumlah sebanyak 60 orang dan alat ukur yang digunakan adalah antropometri dan kuesioner. Analisis data menggunakan uji chi-square. **Hasil:** Status *stunting* juga dialami oleh balita yang tidak diberi ASI eksklusif sebanyak 28 orang (96,6%), serta 2 orang dialami oleh balita yang diberikan ASI eksklusif. Pada pemberian MP-ASI, berdasarkan jumlah tersebut sebanyak 24 orang balita yang diberikan MP-ASI usia > 6 bulan mengalami *stunting*, dan 6 orang yang diberi MP-ASI tepat usia  $\leq 6$  bulan juga mengalami *stunting*. **Kesimpulan:** Penelitian didapatkan hubungan pemberian ASI secara eksklusif ( $p$ -value  $0,000 < 0,05$ ) dan MP-ASI yang tepat usia ( $p$ -value  $0,000 < 0,05$ ) dengan kejadian *stunting* di Kelurahan Kalirungkut.

**Kata kunci:** Pemberian ASI, Pemberian MP-ASI, *Stunting*

## PENDAHULUAN

*Stunting* dan masalah malnutrisi masih menjadi masalah yang cukup banyak terjadi di Indonesia. Sehubungan dengan hal tersebut, pertemuan dewan kesehatan dunia juga menekankan pada tiga aspek pencapaian, terkait penyakit tidak menular, obesitas, dan remaja, di mana kedua aspek pertama terkait dengan pemberian makan pada anak, terutama Air Susu Ibu (ASI). Pemberian makan pada anak, khususnya pada 1000 hari pertama kehidupan (1000 HPK) menentukan optimalnya tumbuh kembang anak. Air susu ibu eksklusif adalah nutrisi terbaik dalam 6 bulan pertama. Beberapa penelitian menunjukkan bahwa ASI memiliki manfaat baik jangka pendek maupun jangka panjang [1]. Menurut *The American Academy of Pediatrics* dan *The World Health Organization* (WHO)

menyarankan setidaknya sampai 6 bulan balita diberi ASI secara eksklusif, yang dimaksud ASI secara eksklusif ialah hanya ASI saja yang diberikan sebagai makanan nutrisi untuk bayi [2].

Selain ASI eksklusif ada juga pemberian makanan pendamping ASI atau yang biasa disingkat MP-ASI. Makanan Pendamping ASI adalah makanan pendamping yang diperuntukkan pada bayi ketika bayi sudah tidak cukup diberi ASI saja sehingga masih ada kebutuhan makanan lagi yang dibutuhkan untuk kebutuhan nutrisi anak (pertumbuhan dan perkembangan). Pemberian Makanan Pendamping ASI secara tepat dan benar akan mendukung pertumbuhan dan perkembangan bayi baik secara kognitif dan psikomotorik [3].

Secara umum anjuran ASI eksklusif adalah 6 bulan, namun bayi tetap harus dievaluasi sehingga gangguan pertumbuhan dapat diketahui secara dini dan diberikan tata laksana yang sesuai. Bila kenaikan berat seorang bayi berusia 4 bulan atau lebih tidak sesuai dengan grafik pertumbuhan atau bahkan tidak naik sama sekali, maka pemberian makanan pendamping ASI (MP-ASI) lebih awal dari 6 bulan dapat dipertimbangkan [4]. Pemberian Makanan Pendamping ASI dini pada bayi sebelum usia 4 bulan dan kualitas dari makanan yang kurang mencukupi gizi anak dapat meningkatkan risiko terjadinya *stunting*.

Menurut data yang dipublikasikan *The World Health Organization (WHO)*, *The World Bank (2021)*, dan *United Nations Children Fund (UNICEF) 2* menginformasikan bahwa secara universal terdapat 149,2 juta anak dengan usia dibawah kurang dari 5 tahun menderita *stunting* di tahun 2020. *Global Nutrition Report (2020)* merincikan kawasan Asia Tenggara mengalami *stunting* sebesar 24,7% sehingga menjadi prevalensi *stunting* tertinggi kedua setelah Asia Selatan. Indonesia menjadi negara kelima dengan frekuensi *stunting* tertinggi yaitu 24,45% setelah negara India, China, Nigeria, dan Pakistan [5].

Menurut data Survei Status Gizi Balita Indonesia (SSGBI) tahun 2021, Kota Surabaya yang merupakan Kota Metropolitan kedua yang memiliki fasilitas yang cukup memadai, memiliki prevalensi *stunting* hampir 30%. Berdasarkan riset dan informasi, diketahui di lokasi penelitian yakni Kelurahan Kalirungkut Surabaya terdapat 700-an balita *stunting* dengan prevalensi 19,98% [6]. Penulis tertarik ingin meneliti hubungan pemberian ASI dan MP-ASI ibu dengan kejadian *stunting* pada balita.

## METODE PENELITIAN

### Rancangan Penelitian

Penelitian tentang “Hubungan Pemberian ASI dan MP-ASI Ibu terhadap Kejadian *Stunting* pada Balita di Kelurahan Kalirungkut Surabaya” ini menggunakan pendekatan *case control* dengan kelompok *case* yaitu ibu dengan balita *stunting* dan kelompok *control* yaitu ibu dengan balita tidak *stunting*. Data penelitian yang digunakan yaitu data primer dengan menggunakan media kuesioner.

### Populasi dan Sampel Penelitian

Populasi penelitian adalah ibu balita yang datang ke posyandu di Kelurahan Kalirungkut Surabaya pada bulan Januari-Februari 2023 yang termasuk kriteria inklusi. Metode sampel yang digunakan adalah *consecutive sampling* sebanyak 60 responden yang dibagi 2 kelompok *case* dan *control* yang masing-masing sebanyak 30 responden.

### Teknik Analisa Data

Peneliti melakukan analisis deskriptif untuk menggambarkan karakteristik dari ibu balita, ASI, dan MP-ASI dengan analisa chi-square guna mengetahui hubungan variabel pemberian ASI dan MPASI ibu dengan kejadian *stunting* pada balita di kelurahan Kalirungkut Surabaya menggunakan SPSS 27.0 for windows.

## HASIL PENELITIAN

### A. Karakteristik Responden

**Tabel 1 Distribusi Frekuensi Karakteristik Responden Berdasarkan Usia Balita**

Usia Balita	Jumlah	Persen (%)
0 – 24 bulan	11	18,33 %
25 – 60 bulan	49	81,67%
<b>Jumlah</b>	<b>60</b>	<b>100 %</b>

Sumber: Peneliti 2023

Berdasarkan tabel 1 menunjukkan bahwa balita terbanyak yaitu berusia 25 – 60

bulan sebanyak 49 orang (81,67%), sedangkan untuk usia 0 – 24 bulan sebanyak 11 orang (18,33%).

**Tabel 2 Distribusi Frekuensi Karakteristik Responden Berdasarkan Usia Ibu**

Usia Ibu	Jumlah	Persen (%)
< 20 tahun	22	36,7 %
20 – 35 tahun	30	50 %
> 35 tahun	8	13,3%
<b>Jumlah</b>	<b>60</b>	<b>100 %</b>

Sumber : Peneliti 2023

Berdasarkan tabel 2 menunjukkan bahwa ibu balita terbanyak yang berusia 20 – 35 tahun dengan 30 orang (50%) dan ibu balita yang paling sedikit ialah usia > 35 tahun dengan 8 orang (13,3%).

**Tabel 3 Distribusi Frekuensi Karakteristik Responden Berdasarkan Pendidikan Terakhir Ibu**

Pendidikan	Jumlah	Persen (%)
SD	4	6,7 %
SMP	11	18,3 %
SMA/SMK	33	55%
Sarjana (S1)	12	20 %
<b>Jumlah</b>	<b>60</b>	<b>100%</b>

Sumber : Peneliti 2023

Berdasarkan tabel 3 menunjukkan jika sebagian besar pendidikan terakhir ibu yaitu SMA/SMK sebanyak 33 orang (55%). Pendidikan terakhir ibu yang paling sedikit yaitu SD sebanyak 4 orang (6,7%).

**Tabel 4 Distribusi Frekuensi Karakteristik Responden Berdasarkan Pekerjaan Ibu**

Pekerjaan Ibu	Jumlah	Persen (%)
IRT	37	61,7%
Bekerja	23	38,3%
<b>Jumlah</b>	<b>60</b>	<b>100 %</b>

Sumber: Peneliti 2023

Berdasarkan tabel 4 menunjukkan bahwa ibu balita yang menjadi IRT (Ibu Rumah Tangga) adalah sebanyak 37 orang (61,7%). Ibu balita yang menjadi pekerja sebanyak 23 orang (38,3%).

**Tabel 5 Distribusi Frekuensi Karakteristik Responden Berdasarkan Penghasilan Keluarga Per-bulan**

Penghasilan Keluarga	Jumlah	Persen (%)
< 1.500.000	22	36,7%
1.500.000 – 2.500.000	28	46,7%
> 2.500.000	10	16,7 %
<b>Jumlah</b>	<b>60</b>	<b>100 %</b>

Sumber: Peneliti 2023

Tabel 5 menunjukkan jika sebagian besar keluarga responden memiliki penghasilan per-bulannya dengan tingkat menengah 1.500.000 – 2.500.000 yaitu sebanyak 28 orang (36,7%). Paling sedikitnya responden memiliki penghasilan per-bulan > 2.500.000 yaitu 9 orang (15%).

## B. Hasil Analisa Data

**Tabel 1 Hubungan Pemberian ASI Eksklusif dengan Kejadian *Stunting***

Pemberian ASI Eksklusif	Tidak <i>Stunting</i>		<i>Stunting</i>	
	n	%	n	%
ASI Eksklusif	29	93,5%	2	6,5%
Tidak ASI Eksklusif	1	3,4%	28	96,6%
p-value 0,000				
Total	30		30	

Sumber: Peneliti 2023

Status tidak *stunting* pada balita yang diberikan ASI eksklusif sebanyak 29 orang, dan 1 orang balita yang tidak ASI eksklusif. Status *stunting* juga dialami oleh balita yang tidak diberi ASI eksklusif sebanyak 28 orang (96,6%), serta 2 orang dialami oleh balita yang diberikan ASI eksklusif.

Hasil statistik menunjukkan p-value yaitu 0,000 (<0,05) memiliki makna ada hubungan pemberian ASI Eksklusif terhadap kejadian *stunting* pada balita di Kelurahan Kalirungkut Surabaya.

**Tabel 2 Hubungan Pemberian MPASI dengan Kejadian *Stunting* pada Balita**

Pemberian MPASI	Tidak <i>Stunting</i>		<i>Stunting</i>	
	n	%	n	%
Tepat Usia ≤ 6 bulan	25	80,6%	6	19,4%
Usia > 6 bulan	5	17,2%	24	82,8%
<i>p-value</i> 0,000				
Total	30		30	

Sumber: Peneliti 2023

Balita yang diberikan MP-ASI tepat usia ≤ 6 bulan sebanyak 25 orang tidak mengalami *stunting*, dan 5 orang diberikan MP-ASI setelah usia 6 bulan juga tidak mengalami *stunting*. Status *stunting* dialami oleh balita yang diberi MP-ASI tepat usia ≤ 6 bulan sebanyak 6 orang (19,4%). Balita yang diberikan MP-ASI setelah usia 6 bulan, sebanyak 24 orang (82,8%) juga mengalami *stunting*.

Hasil statistik menunjukkan *p-value* yaitu 0,000 (<0,05) memiliki makna ada hubungan pemberian MP-ASI terhadap kejadian *stunting* pada balita di Kelurahan Kalirungkut Surabaya.

## PEMBAHASAN

### A. Karakteristik Responden

#### 1. Usia Balita

Balita dalam penelitian ini berusia 0 – 24 bulan sebanyak 18,3 % (11 orang) dan usia 25 – 60 bulan sebanyak 81,7% (49 orang). Ketika memasuki usia > 6 bulan seorang anak mulai mengalami masalah dengan makan. Pemberian ASI saja tidak cukup untuk memenuhi kebutuhan anak yang semakin aktif dan tentu dalam masa pertumbuhan. Kebutuhan nutrisi yang didapat harus linear dengan pertumbuhan dan perkembangan anak.

Terlebih lagi *United Nations Children's Fund (UNICEF)* fokus pada peran untuk mengatasi masalah asupan energi rendah yang terjadi pada anak-anak. Hal itu menyebabkan terjadinya kekurangan nutrisi pada periode tersebut sangat

mempengaruhi perawakannya. Oleh karena itu, pertumbuhan (tinggi dan berat badan) sering digunakan untuk mengukur status gizi pada anak – anak. Pada penelitian Alam *et al* (2019) dikatakan *stunting* yang terjadi di usia 0 – 60 bulan berhubungan signifikan pada perkembangan kognitif yang rendah [7].

#### 2. Pendidikan Terakhir Ibu

Pertumbuhan dan perkembangan anak dipengaruhi oleh pendidikan juga pengetahuan informasi ibu tentang keseimbangan nutrisi dan pola asuh yang diberikan pada anak. Pada penelitian ini, pendidikan terakhir ibu yang terbanyak yaitu SMA/SMK sejumlah 33 orang (55%).

Pendidikan yang semakin tinggi akan lebih memahami pentingnya kebutuhan yang cukup bagi anak dan memudahkan dalam menerima edukasi atau KIE yang berhubungan dengan ASI eksklusif dan *stunting*. Penelitian yang dilakukan di Aceh menemukan hasil terkait tingkat pendidikan yang rendah yang beresiko meningkatkan kejadian *stunting* [8].

#### 3. Pekerjaan Ibu

Pada penelitian ini, menunjukkan jika sebagian besar responden adalah ibu pekerja dengan persentase sebanyak 37 orang (61,7%), dan 23 orang adalah ibu yang bekerja.

Dalam penelitian yang memiliki hasil penelitian bahwa balita pada ibu yang bekerja lebih banyak mengalami *stunting* daripada ibu rumah tangga. Hal tersebut dikarenakan *quality time* antara ibu dan anak menurun sehingga pemberian ASI eksklusif terbatas, penghentian menyusui dini, mempercepat penggunaan susu botol dan pengenalan MP-ASI sebelum waktunya [9].

Berbalik dengan penelitian ibu balita yang tidak bekerja memiliki resiko status anak *stunting* lebih besar dan tidak ada hubungan yang bermakna antara pekerjaan ibu dengan kejadian *stunting* [10].

#### 4. Penghasilan Keluarga

Pada tabel 5 menunjukkan jika sebagian besar penghasilan keluarga responden memiliki penghasilan di tingkat menengah 1.500.000 – 2.500.000 yaitu sebanyak 28 orang (46,7%). Status ekonomi yang rendah menyebabkan

ketidak terjangkau dalam pemenuhan nutrisi sehari-hari yang pada akhirnya status ekonomi memiliki efek signifikan terhadap kejadian malnutrisi sehingga prevalensi *stunting* lebih tinggi terjadi pada keluarga dengan status ekonomi rendah [11].

## **B. Hubungan antara Pemberian ASI Eksklusif terhadap Kejadian *Stunting***

Pada penelitian ini diperoleh hasil pada seluruh kelompok kasus dan kontrol total seluruh responden (60 orang), jumlah responden yang memberi ASI eksklusif sebanyak 43 orang (71,7%) dan yang ASI tidak eksklusif terdapat 17 orang (28,3).

Status *stunting* juga dialami oleh balita yang tidak diberi ASI eksklusif sebanyak 28 orang (96,6%), serta 2 orang dialami oleh balita yang diberikan ASI eksklusif.

ASI Eksklusif memberi banyak manfaat bagi ibu dan untuk bayi air susu ibu merupakan makanan alami yang baik untuk bayi [12]. Pemberian ASI Eksklusif punya banyak manfaat untuk bayi pada 6 bulan pertamanya, seperti dapat mengurangi kejadian gangguan pencernaan dan dapat menambah imunitas tubuh. Kandungan pada ASI yaitu lactoferrin, imunoglobulin dan kandungan lainnya tidak dapat ditemukan di susu lainnya. [8].

Anak yang tidak mendapatkan ASI eksklusif beresiko lebih besar terjadinya kekurangan zat gizi yang dibutuhkan untuk proses pertumbuhan. Jika terjadi gangguan selama proses pertumbuhan akan mengakibatkan terjadinya resiko *stunting* pada anak. Hal ini sejalan dengan penelitian yang membuktikan terdapat hubungan antara ASI eksklusif dengan *stunting* di Puskesmas Lima Puluh Pekan Baru [13].

## **C. Hubungan antara Pemberian MP-ASI terhadap Kejadian *Stunting***

Hasil penelitian menunjukkan jika sebanyak 29 orang responden diberikan MP-ASI saat usia > 6 bulan. Sedangkan, sebanyak 31 orang diberikan MP-ASI tepat usia ≤ 6 bulan. Berdasarkan jumlah tersebut sebanyak 24 orang anak yang diberikan MP-ASI usia > 6 bulan mengalami *stunting*,

dan 6 orang yang diberi MP-ASI tepat usia ≤ 6 bulan juga mengalami *stunting*.

MP-ASI diperlukan untuk menutupi kekurangan antara total kebutuhan bayi dan jumlah yang dapat dipenuhi ASI. Tujuan pemberian MP-ASI yaitu untuk menambah energi dan zat – zat gizi yang diperlukan bayi karena ASI tidak dapat memenuhi kebutuhan bayi secara terus menerus [14].

Pengenalan MP-ASI secara dini atau secara terlambat dapat meningkatkan resiko defisiensi besi, *zinc*, kalsium, dan vitamin sehingga dibutuhkan nutrisi MP-ASI yang mencukupi energi dan nutrisi anak [15]. Hal ini sejalan dengan penelitian yang membuktikan jika anak balita yang diberikan MP-ASI sesuai dengan kebutuhannya dapat mengurangi resiko terjadinya *stunting*. Hal ini dikarenakan anak balita yang diberikan MP-ASI dalam jumlah dan frekuensi yang cukup maka anak balita tersebut terpenuhi kebutuhan zat gizinya yang dapat mengurangi resiko terjadinya *stunting* [16].

## **PENUTUP**

### **Kesimpulan**

1. Pemberian ASI ibu pada anak di Kelurahan Kalirungkut Surabaya diperoleh hasil 43 orang (71,7%) dengan diberikan ASI secara eksklusif, sedangkan 17 orang (28,3%) tidak diberikan ASI secara eksklusif.
2. Pemberian MPASI Ibu secara tepat usia pada anak sebanyak 22 orang (36,7%), untuk pemberian MPASI yang tidak tepat diperoleh hasil 38 orang (63,3%) di Kelurahan Kalirungkut Surabaya.
3. Hasil penelitian pemberian ASI eksklusif ibu terhadap kejadian *stunting* yaitu sebanyak 2 orang (6,5%). Untuk pemberian ASI tidak eksklusif terhadap kejadian *stunting* di Kelurahan Kalirungkut Surabaya terdapat 28 orang (96,6%). Hal ini didapatkan terdapat hubungan pemberian ASI ibu terhadap kejadian *stunting* pada balita di Kelurahan Kalirungkut Surabaya (*p-value* 0,000 < 0,05).
4. Pemberian MP-ASI ibu yang tepat usia (≤ 6 bulan) terhadap kejadian *stunting* di Kelurahan Kalirungkut Surabaya terdapat 6 orang (19,4%) dan pemberian MP-ASI ibu yang tidak tepat terdapat sebanyak 24 orang (82,8%). Hal ini didapatkan makna

ada hubungan pemberian MP-ASI ibu terhadap kejadian *stunting* di Kelurahan Kalirungkut Surabaya (*p-value* 0,000 < 0,05).

### Saran

1. Untuk dinas kesehatan, supaya dapat memberikan memberikan intervensi khususnya dalam memberikan penyuluhan kesehatan tentang pencegahan *stunting* menggunakan metode media audiovisual serta melakukan monitoring terhadap pengetahuan dan perkembangan proses ibu terhadap kejadian *stunting* setelah dilakukan intervensi. Hal ini terutama dilakukan di wilayah Kalirungkut.
2. Untuk masyarakat diharap untuk meningkatkan pengetahuan informasi terkait tumbuh kembang anak dengan kebutuhan gizi nutrisi (ASI dan MP-ASI) agar dapat dipraktekan mandiri sehingga kejadian *stunting* di wilayah Kalirungkut dapat menurun.
3. Penelitian lebih lanjut perlu dilakukan untuk melihat faktor lain di luar faktor yang diteliti yang dapat memengaruhi masalah *stunting* dan meningkatkan pengetahuan ibu tentang pengetahuan baik mengenai ASI dan asupan makanan serta pengetahuan mengenai penyebab dan cara pencegahan *stunting* lebih dini.

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## **The Relationship between Breastfeeding and Complementary Food of Mothers to the Incidence of Stunting in Toddlers in Kalirungkut Village, Surabaya**

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### **ABSTRACT**

**Background:** *The prevalence of stunting in Indonesia is still relatively high. Surabaya City, which is the second metropolitan city, has adequate facilities, but according to data obtained Surabaya has a stunting prevalence of almost 30%. Some factors that cause stunting still occur in big cities, namely nutrition.*  
**Objective:** *To identify the relationship between breastfeeding and maternal complementary foods on the incidence of stunting in toddlers at Kalirungkut Village, Surabaya.*  
**Methods:** *The research design used was an analytical observational study with a case control approach. The population of this study was mothers who had children who came to the Posyandu in Kalirungkut Village Surabaya in January-February 2023, sampling was carried out by consecutive sampling with a total of 60 people and the measuring instruments used were anthropometry and questionnaires. Data analysis using chi-square test.*  
**Results:** *Stunting status was also experienced by toddlers who were not exclusively breastfed as many as 28 people (96.6%), and 2 people experienced by toddlers who were exclusively breastfed. In the provision of complementary food, based on this number, as many as 24 children who were given complementary food at the age of > 6 months were stunted, and 6 people who were given complementary food at the age of ≤ 6 months were also stunted.*  
**Conclusion:** *The study found a relationship between exclusive breastfeeding (p-value 0.000 < 0.05) and age-appropriate complementary food (p-value 0.000 < 0.05) with the incidence of stunting in Kalirungkut Village.*

**Keywords:** *Breastfeeding, Complementary feeding, Stunting*



## INTRODUCTION

Stunting and malnutrition are still quite common problems in Indonesia. In this regard, the World Health Council meeting also emphasized three aspects of achievement, related to non-communicable diseases, obesity, and adolescents, where the first two aspects are related to feeding children, especially breast milk. Feeding children, especially in the first 1000 days of life (1000 HPK) determines the optimal growth and development of children. Exclusive breast milk is the best nutrition in the first 6 months. Some studies show that breast milk has both short-term and long-term benefits [1]. According to The American Academy of Pediatrics and The World Health Organization (WHO) recommends at least up to 6 months toddlers are breastfed exclusively, what is meant exclusively is breast milk is only given as nutritional food for infants [2].

In addition to exclusive breastfeeding, there is also complementary feeding or commonly abbreviated as MP-ASI. Complementary foods are complementary foods intended for infants when the baby is not fed enough milk alone so that there are still more food needs needed for the child's nutritional needs (growth and development). Proper and correct complementary feeding will support the growth and development of the baby both cognitively and psychomotor [3].

In general, the recommendation for exclusive breastfeeding is 6 months, but babies should still be evaluated so that growth disorders can be detected early and given appropriate management. If the weight gain of an infant aged 4 months or older does not match the growth chart or even does not increase at all, then complementary feeding (MPASI) earlier than 6 months can be considered [4]. Early complementary feeding of infants before the age of 6 months and the quality of food that is inadequate for child nutrition can increase the risk of stunting.

According to data published by The World Health Organization (WHO), The World Bank (2021), and the United Nations Children Fund (UNICEF) 2 informed that universally there were 149.2 million children under the age of less than 5 years suffering from stunting in 2020. The Global Nutrition Report (2020) details that the Southeast Asia region experienced stunting by 24.7%, making it the second highest stunting prevalence after South Asia. Indonesia is the fifth country with the highest stunting frequency at 24.45% after India, China, Nigeria, and Pakistan [5].

According to data from the Indonesian Toddler Nutrition Status Survey (SSGBI) in 2021, Surabaya City, which is the second Metropolitan City that has adequate facilities, has a stunting prevalence of almost 30%. Based on research and information, it is known that in the research location, namely Kalirungkut Village, Surabaya there are 700 stunting toddlers with a prevalence of 19.98% [6]. The author is interested in examining the relationship between breastfeeding and maternal complementary foods with the incidence of stunting in toddlers.

## MATERIALS AND METHODS

### Research Design

The research on "The Relationship of Breastfeeding and Maternal MPASI to the Incidence of Stunting in Toddlers in Kalirungkut Village Surabaya" uses a case control approach with a case group, namely mothers with stunting toddlers and a control group, namely mothers with toddlers who are not stunted. The research data used is primary data using questionnaire media.

### Population and Research Sample

The study population is mothers of toddlers who come to posyandu in Kalirungkut Village, Surabaya in January-February 2023, which includes inclusion criteria. The sample method used was

consecutive sampling of 60 respondents divided into 2 case and control groups of 30 respondents each.

### Data Analysis Techniques

Researchers conducted a descriptive analysis to describe the characterization of mothers under five, breastfeeding, and complementary foods with chi-square analysis to determine the relationship between variables of breastfeeding and maternal complementary foods with the incidence of stunting in toddlers in Kalirungkut sub-district Surabaya using SPSS 27.0 for windows.

## RESULTS

### A. Characteristics of Respondents

**Table 1 Frequency Distribution of Respondents' Characteristics Based on Age of Toddlers**

Age of Toddler	Sum	Percent (%)
0 – 24 months	11	18,33 %
25 – 60 months	49	81,67%
<b>Sum</b>	<b>60</b>	<b>100 %</b>

Source: Researchers 2023

Based on table 1 shows that the most toddlers aged 25-60 months are 49 people (81.67%), while for ages 0-24 months as many as 11 people (18.33%).

**Table 2 Frequency Distribution of Respondents' Characteristics Based on Maternal Age**

Mother's Age	Sum	Percent (%)
< 20 years	22	36,7 %
20 – 35 years	30	50 %
> 35 years old	8	13,3%
<b>Sum</b>	<b>60</b>	<b>100 %</b>

Source : Researchers 2023

Based on table 2 shows that the most mothers under five are aged 20-35 years with

30 people (50%) and the least mothers under five are aged > 35 years with 8 people (13.3%).

**Table 3 Frequency Distribution of Respondent Characteristics Based on Last Maternal Education**

Education	Sum	Percent (%)
SD	4	6,7 %
SMP	11	18,3 %
High School	33	55%
Bachelor (S1)	12	20 %
<b>Sum</b>	<b>60</b>	<b>100%</b>

Source : Researchers 2023

Based on table 3, it shows that most of the last mother's education, namely high school/vocational school, is 33 people (55%). The least maternal education is elementary school as many as 4 people (6.7%).

**Table 4 Frequency Distribution of Respondents' Characteristics Based on Mother's Occupation**

Mother's Work	Sum	Percent (%)
IRT	37	61,7 %
Work	23	38,3%
<b>Sum</b>	<b>60</b>	<b>100 %</b>

Source: Researchers 2023

Based on table 4 shows that mothers of toddlers who become IRT (Housewives) are as many as 37 people (61.7%). Mothers of toddlers who became workers were 23 people (38.3%).

**Table 5 Frequency Distribution of Respondents' Characteristics Based on Family Income**

Family Income	Sum	Percent (%)
< 1.500.000	22	36,7 %
1.500.000 – 2.500.000	28	46,7%
> 2.500.000	10	16,7 %
<b>Sum</b>	<b>60</b>	<b>100 %</b>

Source: Researchers 2023

Table 5 shows that most respondents have a family income of Rp.1.500.000 – 2.500.000, which is 28 people (46,7%). At least

respondents have a family income of > 2,500,000, which is 10 people (16,7%).

## B. Data Analysis Results

**Table 1 The Relationship between Exclusive Breastfeeding and the Incidence of Stunting**

Breastfeeding	No Stunting		Stunting	
	n	%	n	%
Exclusive breastfeeding	29	93,5%	2	6,5%
Not Exclusive Breastfeeding	1	3,4%	28	96,6%
P-value 0,000				
Total	30		30	

Source: Researchers 2023

The status of not *stunting* in toddlers who were given exclusive breastfeeding was 29 people, and 1 toddler who was not exclusively breastfed. Stunting status was also experienced by toddlers who were not exclusively breastfed as many as 28 people (96.6%), and 2 people experienced by toddlers who were exclusively breastfed.

The statistical results show that the p-value of 0.000 (<0.05) means that there is an exclusive breastfeeding relationship with the incidence of stunting in toddlers in Kalirungkut Village, Surabaya.

**Table 2 The Relationship between MPASI and the Incidence of Stunting in Toddlers**

Provision of complementary food	Non Stunting		Stunting	
	n	%	n	%
Exactly Age ≤ 6 months	25	80,6%	6	19,4%
Age > 6 months	5	17,2%	24	82,8%
P-value 0,000				
Total	30		30	

Source: Researchers 2023

Toddlers who were given MPASI at the age of ≤ 6 months as many as 25 people were not stunted, and 5 people were given MPASI after the age of 6 months also did not experience stunting. Stunting status was experienced by toddlers who were given complementary food at the age of ≤ 6 months as many as 6 people (19.4%). Toddlers who were given complementary food after the age of 6 months, as many as 24 people (82.8%) were also *stunted*.

The statistical results show that the p-value of 0.000 (<0.05) means that there is a relationship between the provision of complementary food to the incidence of *stunting* in toddlers in Kalirungkut Village, Surabaya.

## DISCUSSION

### A. Characteristics of Respondents

#### 1. Age of Toddler

Toddlers in this study aged 0-24 months as much as 18.3% (11 people) and aged 25-60 months as much as 81.7% (49 people). When entering the age of > 6 months a child begins to experience problems with eating. Breastfeeding alone is not enough to meet the needs of children who are increasingly active and certainly in their infancy. The nutritional needs obtained must be linear with the growth and development of the child.

What's more, the *United Nations Children's Fund (UNICEF)* focuses on its role in addressing the problem of low energy intake in children. It causes the occurrence of nutritional deficiencies in that period greatly affects his stature. Therefore, growth (height and weight) is often used to measure nutritional status in children. In the study of Alam *et al* (2019), it is said that *stunting* that occurs at the age of 0-60 months is significantly associated with low cognitive development [7].

#### 2. Mother's Last Education

The growth and development of children is influenced by education as well as the mother's information knowledge about the balance of nutrition and parenting given to children. In this study, the most

maternal last education was high school/vocational school with 33 people (55%).

Higher education will better understand the importance of sufficient needs for children and make it easier to receive education or IEC related to exclusive breastfeeding and stunting. Research conducted in Aceh found results related to low levels of education that risk increasing the incidence of stunting [8].

### 3. Mother's Work

In this study, it shows that most respondents are housewives with a percentage of 37 people (61.7%), and 23 people are working mothers.

In the study, mothers of toddlers who did not work had a greater risk of stunting child status and there was no significant relationship between maternal work and the incidence of stunting [9].

Turning around with research that has research results that toddlers in working mothers are more *stunted* than housewives. This is because the *quality time* between mother and child decreases so that exclusive breastfeeding is limited, early termination of breastfeeding, accelerating the use of bottle milk and the introduction of complementary foods prematurely [10].

### 4. Family Income

Table 5 shows that most respondents have a family income of <1,500,000, which is 28 people (46.7%). Low economic status causes unaffordability in fulfilling daily nutrition which in turn economic status has a significant effect on the incidence of malnutrition so that the prevalence of stunting is higher in families with low economic status [11].

## **B. The Relationship between Exclusive Breastfeeding and the Incidence of Stunting**

In this study, results were obtained in all case groups and total control of all respondents (60 people), the number of respondents who gave exclusive breastfeeding was 43 people (71.7%) and those who were not exclusively breastfed there were 17 people (28.3).

Stunting status was also experienced by toddlers who were not exclusively breastfed as

many as 28 people (96.6%), and 2 people experienced by toddlers who were exclusively breastfed.

Exclusive breastfeeding provides many benefits for the mother and for the baby, breast milk is a good natural food for the baby [12]. Exclusive breastfeeding has many benefits for babies in the first 6 months, such as can reduce the incidence of digestive disorders and can increase body immunity. The content in breast milk, namely lactoferrin, immunoglobulin and other ingredients can not be found in other milk. [8].

Children who do not get exclusive breastfeeding are at greater risk of malnutrition needed for the growth process. If there is a disturbance during the growth process, it will result in the risk of stunting in children. This is in line with research that proves there is a relationship between exclusive breastfeeding and stunting at the Fifty Pekan Baru Health Center [13].

## **C. The Relationship between Providing MPASI to the Incidence of Stunting**

The results showed that as many as 29 respondents were given complementary foods at the age of > 6 months. Meanwhile, as many as 31 people were given complementary food at the age of ≤ 6 months. Based on this number, as many as 24 children who were given complementary food at the age of > 6 months were stunted, and 6 people who were given complementary food at the age of ≤ 6 months were also stunted.

MPASI is needed to cover the shortfall between the baby's total needs and the amount that can be met by breast milk. The purpose of giving complementary foods is to increase the energy and nutrients needed by babies because breast milk cannot meet the needs of babies continuously [14].

Early or late introduction of complementary foods can increase the risk of deficiency of iron, *zinc*, calcium, and vitamins so that adequate complementary food nutrition is needed for energy and nutrition for children [15]. This is in line with research that proves that children under five who are given complementary foods according to their needs can reduce the risk of stunting. This is because toddlers who are given complementary foods in sufficient quantity and frequency, the toddlers

are met with nutritional needs that can reduce the risk of stunting [16].

## CONCLUSION AND SUGGESTION

### Conclusion

1. In the author's research, there are 30 stunting incidents in toddlers in Kalirungkut Village, Surabaya.
2. Breastfeeding mothers to children in Kalirungkut Village Surabaya obtained results from 43 people (71.7%) exclusively breastfed, while 17 people (28.3%) were not exclusively breastfed.
3. The provision of age-appropriate maternal complementary food to 22 children (36.7%), for improper complementary feeding, 38 people (63.3%) were obtained in Kalirungkut Village, Surabaya.
4. The results of the study on exclusive breastfeeding of mothers on the incidence of stunting were 2 people (6.5%). For non-exclusive breastfeeding for stunting incidents in Kalirungkut Village, Surabaya, there are 28 people (96.6%). It was found that there was a relationship between maternal breastfeeding and the incidence of stunting in toddlers in Kalirungkut Village, Surabaya (p-value  $0.000 < 0.05$ ).
5. There were 6 people ( $\leq 6$  months) of maternal complementary food for stunting in Kalirungkut Village, Surabaya and 24 people (82.8%) and 24 people (82.8%) were given improper maternal complementary food. This means that there is a relationship between the provision of maternal complementary food to the incidence of stunting in Kalirungkut Village, Surabaya (p-value  $0.000 < 0.05$ ).

### Suggestion

1. For the health office, in order to provide interventions, especially in providing health counseling on stunting prevention using audiovisual media methods and monitoring the knowledge and development of the mother's process on stunting events after the intervention. This is mainly done in the Kalirungkut region.
2. For the community, it is hoped that they will increase their knowledge of information related to the growth and development of children with nutritional

needs (breast milk and complementary foods) so that they can be practiced independently so that the incidence of stunting in the Kalirungkut area can decrease.

3. Further research needs to be done to look at other factors beyond the factors studied that can influence the problem of stunting and increase mothers' knowledge about knowledge both about breast milk and food intake as well as knowledge about the causes and ways of preventing stunting earlier.

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