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Analysis Nutritional Status of Pregnant Women, Hemoglobin During Pregnant, Baby Birth Weight, Exclusive Breastfeeding and History of Infectious Disease With Stunting

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Abstract

Indonesia is included in the third country with the highest prevalence in the South-East Asia Region (SEAR). The average prevalence of stunting of toddlers in Indonesia in 2005-2017 was 36.4%. The data on stunting toddlers in Tangerang Regency was 23.2%. This study at to determine the factor analysis of stunting at the Caringin Public Health Center, Tangerang Regency in 2021. The type of research used was an analytical observational study with a case control study design. The sample in this study was 75 for each group of cases and controls using simple random sampling technique. The research instrument used a questionnaire for primary data and an MCH handbook for secondary data. Data analysis has been done by a chi square test. Out of 150 respondents, it was found that mothers with a history of CED during pregnancy were 24%, mothers with a history of anemia during pregnancy was 56.7%, a history of LBW was 8.7%, a history of not exclusive breastfeeding was 55.3% , and a history of infectious diseases was 40.7%. Nutritional status of pregnant women (p-value = 0.000, OR = 7.667), HB levels in pregnant women (pvalue = 0.008, OR = 2.563), history of exclusive breastfeeding (pvalue = 0.009, OR = 2.545) were factors associated with stunting. There was a relationship between the nutritional status of pregnant women, HB levels in pregnant women, and a history of exclusive breastfeeding with the incidence of stunting. The factor most related to the incidence of stunting was the nutritional status of pregnant women (OR = 7,667). It is hoped that health workers will further increase the provision of additional food and IEC regarding the importance of FE tablets for pregnant women as a program for improving nutrition for pregnant women

Keywords: Exclusive breastfeeding, Nutrional Status, Toddlers, Stunting.

Introduction

Stunting is something condition where occur fail grow in children toddlers (under five years) caused by lack of nutrition chronic so that child too short for his age . In 2017 around 22.2 % or 150.8 million toddlers in the world are stunted. More from half stunting

toddlers in the world come from from Asia (55%) while more from one third (39%) live in Africa.

Prevalence data stunting toddlers collected World Health Organization (WHO), Indonesia including to in a third country with prevalence highest in the South-East Asia Regional (SEAR). Prevalence stunting toddlers in Indonesia experienced enhancement from in 2016 from 27.5% to 29.6% in 2017 (Ministry of Health of the Republic of Indonesia, 2018). Based on The 2018 Basic Health Research (Riskesdas) in Tangerang Regency obtained data on stunting toddlers of 23.2%. Still high amount under five identified as stunting , the Government Tangerang Regency has set a target for lower stunting rate up to 14% in 2024. While in the work area Public health center Search stunting rate in 2021 is as many as 359 people (16.46%).

According to WHO (2013), stunting is caused by multi -dimensional factors , including : is maternal factors , namely nutritional status mother pregnant , anemia in pregnancy . Factor reason other is Low Birth Weight (LBW), not exclusive breastfeeding and history of disease infection in children . pregnant women with Deficiency Energy Chronic (KEK) is at risk give birth to baby heavy born low (LBW) which if no quick handled with good will risky experiencing stunting (Ministry of Health , RI, 2018).

According to Riskesdas data 2018 prevalence of nutritional status mother pregnant or KEK on mother pregnant still enough tall that is by 17.3%. In Tangerang Regency according to Riskesdas 2018 prevalence of SEZ in mothers pregnant as much as 20.08%. Based on mother's data pregnant at the health center Caringin , in 2020 the prevalence of SEZ in mothers pregnant as many as 35 people (6.59%). Nutritional status mother pregnant other is anemia during pregnancy.

Research in Madiun showing that pregnant women who suffer from anemia have 4 times risk have stunting children compared with mothers who are not anemic (Widyaningrum , 2018). Research conducted in Bantul, Yogyakarta shows that that mother Pregnant women with anemia are at risk 1.5 times more tall her son will suffer from stunting compared to mother pregnant women who are not anemic (Warsini , 2016).

Besides Therefore, LBW is one of the reason occurrence of stunting. Research in Nepal shows that baby with LBW have more risk tall for become stunted (Paudel , et al., 2012). History of exclusive breastfeeding not enough of 6 months is also one causes of stunting. According to Prasetyono (2009) benefits of exclusive breastfeeding is support growth

baby especially height because more milk calcium efficient absorbed compared to breast milk substitutes or formula milk. So that Exclusively breastfed babies tend have more height tall and fit with curve growth compared to with formula - fed babies .

According to WHO (2015) reported there are 6.1% of deaths toddler in the world caused by disease infection diarrhea and ARI. In Indonesia, about 83% of deaths caused by disease infection , birth and conditions nutrition obtained by children (Fikawati , 2017) . Based on description above , researcher interested for researching Analysis Factor Stunting Incidents at the Health Center Search Tangerang Regency.

Method

Research location this will implemented in the region work Public health center Search Tangerang Regency . As for the implementation composing thesis this done on the month July 2022. Data types in study this are secondary and primary data. Instruments used for get primary data in study this is questionnaire. Questionnaire is technique data collection carried out with method give set question new or statement written to respondent for answered. While the secondary data in study this in the form of HB levels during pregnant , mother's size LILA During pregnant can got see KIA book . Study this use design study observational analytic with design studies case control (case control). Study started with determination group study that is group cases of stunting and groups non - stunted controls . Study then check by retrospective exposure status Among group case nor group control with use questionnaire. Data analysis using Chi-Square statistical test.

Results

Data collection is done During May – June 2022 with use questionnaire for primary data and with see registers and kia books for secondary data . As for the results study as following :

1. Analysis Univariate

Analysis univariate is analysis carried out to each variable research and results study analyzed for knowing distribution and presentation from each variable . Then results obtained entered in table frequency (Notoatmodjo , 2012). For more clear could seen under this :

Table 1. Distribution Frequency of the Nutritional Status of Pregnant Women

Nutrition Status of Pregnant Women	Frequency	Percentage
KEK	36	24.0

No KEK	114	76.0
Total	150	100

In table 1 shows that of 150 respondents there is mother with KEK history during pregnant by 24%. While the 75 respondents group toddler not stunting from mother with KEK history during pregnant by 76% **.**

Table 2. Distribution Frequency of Mother's HB Levels During Pregnant

Mother's HB level During pregnant	Frequency	Percentage
Anemia	85	56.7
No anemia	65	43.3
Total	150	100

In table 2 show that of 150 respondents there is mother with history of anemia during pregnant by 56.7%, while toddlers who are not stunted from mother with history of anemia during pregnant by 43.3%.

Table 3. Distribution Frequency Baby Birth Weight

baby weight _ born	Frequency	Percentage
LBW	13	8.7
Not LBW	137	91.3
Total	150	100

Table 3 shows that of 150 respondents there is LBW is 8.7%, while those who are not LBW are 91.3% .

Table 4. Distribution Frequency of Exclusive Breastfeeding History

History of exclusive breastfeeding	Frequency	Percentage
Not	83	55.3
Yes	67	44.7
Total	150	100

In table 4 shows that of the 150 respondents who did not exclusively breastfed that is by 55.3%, while infants who are exclusively breastfed that is by 44.7%.

Table 5. Distribution Frequency History of infectious disease

Disease history infection	Frequency	Percentage
Yes	61	40.7
Not	89	59.3

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Total	150	100

In table 5 shows that respondents who have history disease infection by 40.7%, while those who do not have history disease infection that is by 59.3%.

2. Analysis Bivariate

Analysis bivariate is a statistical test for knowing existence connection variable independent namely nutritional status mother pregnant, mother's Hb level pregnancy, baby birth weight, history of exclusive breastfeeding, and history of disease infection to variable dependent that is the incidence of stunting is good in the group case as well as in groups control. Statistical test used street analysis bivariate study this is *chi square* or kai square because of the data presented is categorical. For more clear could seen under this :

A. Relationship nutritional status mother pregnant with stunting incident

Table 6. Relationship between Nutritional Status of Pregnant Women with Stunting

status nutrition mother pregnant	Case		Control		Total		P Value	OR
	n	%	n	%	n	%		
KEK	30	40.0	6	8.0	36	24.0	0.000	7,667
No KEK	45	60.0	69	92.0	114	76.0		
Total	75	10 0	75	100	150	100		

Based on table 6 got that of 75 toddlers who experience stunting from mother with KEK history during pregnant that is by 40%, while of 75 toddlers who do not experiencing stunting from mother with KEK history during pregnant by 8%. Statistical test results obtained p value = 0.000 where score the more small from value 0.05 so that could concluded that there is connection between nutritional status mother pregnant with stunting incident . Analysis result also obtained the value of OR = 7,667 meaning mother pregnant with history of SEZ 7,667 times more risky the child that was born grow stunting compared with mother pregnant not SEZ.

B. Connection mother's HB level During pregnant with stunting incident

Table 7. The Relationship between HB Levels of Pregnant Women and Stunting

Mother's HB level During pregnant	Case		Control		Total		P Value	OR
	n	%	n	%	n	%		
Anemia	51	68.0	34	45.3	85	56.7	0.008	2,563
No anemia	24	32.0	41	54.7	65	43.3		

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Total	75	100	75	100	150	100		

In table 7 shows that toddlers who experience stunting from mother with history of anemia during pregnant by 68%, while toddlers who are not stunted from mother with history of anemia during pregnant by 45.3%. Statistical test results obtained results *p-value* = 0.008 where score the more small from value 0.05 so that could concluded that there is connection Among mother's HB level During pregnant with stunting incident . Statistical test results also obtained the value of OR = 2,563, meaning mother pregnant with anemia 2,563 times more risky the child that was born grow stunting compared with mother pregnant not anemic.

C. Connection baby weight _ born with stunting incident

Table 8. Relationship between Birth Weight and Stunting

Baby weight _ born	Case		Control		Total		P Value
	n	%	n	%	n	%	
LBW	9	12.0	4	5.3	13	8.7	0.246
Not LBW	66	88.0	71	94.7	137	91.3	
Total	75	100	75	100	150	100	

Based on table 8 shows that toddlers who are stunted and born with less weight, that is by 12%, while toddler who doesn't experiencing stunting and birth with less weight, that is by 5.3%. Statistical test results obtained results *p-value* = 0.246 where score the more big from value 0.05 so that could concluded that by statistics no there is connection Among birth weight with stunting incident .

Connection history Exclusive breastfeeding _ with stunting incident

Table 9. Relationship of History of Exclusive Breastfeeding with Stunting

History of exclusive breastfeeding	Case		Control		Total		P value	OR
	n	%	n	%	n	%		
Not	50	66.7	33	44.0	83	55.3	0.009	2,545
Yes	25	33.3	42	56.0	67	44.7		
Total	75	100	75	100	150	100		

In table 9 shows that toddler who doesn't exclusively breastfed and experiencing stunting, namely: by 66.7%, while toddler who doesn't exclusively breastfed and not experiencing stunting, namely by 44%. Statistical test results obtained results *p-value* = 0.009 where score the

more small from value 0.05 so that could concluded that there is connection Among history exclusive breastfeeding with stunting incident. Statistical test results also obtained the value of OR = 2.545 means child who doesn't get 2.545 times more exclusive breastfeeding risky grow stunting compared exclusively breastfed children.

D. Connection history disease infection with stunting incident

Table 10. Relationship of History of Infectious Diseases with Stunting

Disease history infection	Case		Control		Total		P value
	N	%	n	%	n	%	
Yes	32	42.7	29	38.7	61	40.7	0.740
Not	43	57.3	46	61.3	89	59.3	
Total	75	100	75	100	150	100	

In table 10 shows that toddlers who have history disease infection and stunting , namely: by 42.7%, while toddlers who have history disease infection and not experiencing stunting , namely by 38.7%. Statistical test results obtained results *p-value* = 0.740 where score the more big from value 0.05 so that could concluded that by statistics no there is connection Among history disease infection with stunting incident . Disease history infection in the study this that is history of ARI and diarrhea in one year final seen through frequency the pain . It says have history disease infection if During one year final child have history poet infection more than 3 times . Disease rate infection in the group cases and groups control that is 3 times during one year final.

Discussion

A. Relationship nutritional status mother pregnant with stunting incident

Analysis result connection between nutritional status mother pregnant with stunting events can concluded that there is connection between nutritional status mother pregnant with stunting incident . On research got this too results mother pregnant with history of SEZ 7,667 times more risky the child that was born grow stunting compared with mother pregnant not SEZ. Based on WHO theory (2013) that maternal factors in the form of lack of nutrition at the time pregnancy is one _ factor risk occurrence of stunting. Pregnancy period need attention special because is period important on 1000 days life ,

good nutritional status in mothers pregnant could prevent happening Low Birth Weight (LBW) and stunting (short) (Indonesian Health Profile , 2019). Nutritional status mother During pregnancy could manifested as state body consequence from use , absorption and use food that can influence growth and development fetus . Nutrition mother time pregnancy is very important for growth the fetus it contains . In general , mother pregnant with condition good health that is not there is disturbance nutrition in pre-pregnancy nor moment pregnant , will produce more baby _ big and more healthy than mother pregnant whose condition have disturbance nutrition . Lack of energy chronic will cause birth child with form body "stunting" (Soetjiningsih , 2015). Nutritional status mother pregnant who experienced deficiency energy by chronic in the last trimester this cause mother pregnant no have backup substance adequate nutrition _ for provide needs physiology pregnancy that is change hormones and increased blood volume for growth fetus , so supply substance reduced nutrition for the fetus as a result growth and development fetus stunted and born with low weight _ where many connected with less height _ or stunting . Implication LILA size against heavy baby born is that LILA describes state consumption eat especially consumption energy and protein in period long (Arisman , 2010). pregnant women including one _ vulnerable group _ nutrition . intake nutrition mother pregnancy is very influential to growth fetus . in line with study from Lestari, Rohmah & Utami (2020) which shows that there is significant relationship _ between nutritional status mother moment pregnant using LILA and the incidence of stunting. Study more to do Alfarisi , Nurmalasari & Nabila (2019) shows that there is connection between nutritional status mother During pregnancy with stunting incidence , nutritional status mother During her pregnancy experiencing SEZ have 2.2 times more risk big happening stunting toddler compared with nutritional status mother During pregnancy who had a normal LILA. However Thing this no in line with study from Zaif (2017) shows that no there is connection Among deficiency energy chronic during pregnancy with the incidence of stunting in the District Afternoon . According to researcher mother pregnant women who experience KEK can result in risk stunting occurs due to fulfillment nutrition During pregnancy no enough so that risk growth and development fetus stunted and born with low weight , where _ birth weight _ low related close with risk occurrence of stunting.

B. Connection mother's HB level During pregnant with stunting incident

On the test statistic connection mother's HB level During pregnant with stunting incident ,

obtained results that there is connection Among mother's HB level During pregnant with stunting incident . Statistical test results were also obtained OR value = 2,563, meaning mother pregnant with anemia 2,563 times more risky the child that was born grow stunting compared with mother pregnant not anemic. According to Directoral Public Nutrition Ministry of Health Republic of Indonesia (2016) Anemia in mothers pregnant could increase risk growth fetus stunted (IUGR), prematurity , low birth weight, and disorders growth and development child such as stunting and disorders neurocognitive . History of maternal anemia in TM III pregnancy can influence stunting incident due to fulfillment nutrition During pregnancy no enough so that fetus at risk of LBW, where LBW is associated strong with stunting incident . This thing can just occur along with state social economy less family _ so that no could Fulfill needs nutrition During pregnancy with good . This thing in line with study Widyaningrum & Romadhoni (2018) which states that there is significant relationship _ history of pregnancy anemia with stunting in toddlers . Research results others conducted by Rukmaini , Azenda & Maesyaroh (2020) which stated that Children with a history of maternal anemia in TM III pregnancy have risk experiencing stunting by 3.733 times more tall compared to child with mother no have a history of maternal anemia in pregnancy TM III. According to assumption researcher history of anemia in mother pregnant could increase risk occurrence of stunting , this because intake nutrition mother During pregnant no enough so that will take effect to growth and development fetus so that result in fetus born with birth weight _ low in the end will risk occurrence of stunting.

C. Connection baby weight _ born with stunting incident

From result study this showing that no there is connection Among birth weight _ with stunting incident . According to Indonesian Health Profile (2019) LBW babies have risk more big for stunting and suffering disease no infectious such as diabetes, hypertension , and diseases heart moment mature . Babies with LBW have risk more big for experience disturbance development and growth in childhood . _ _ Child arrived with 2 years old with a history of LBW having risk experience disturbance growth and will continues at 5 years first his life if no balanced with gift more stimulation . _ Premature and LBW infants who can endure live at 2 years first his life have risk not enough nutrition and stunting (Dewi & Widari , 2018). in line with results research conducted by Tatu, Mau & Rua (2020) which states that there is significant relationship _ Among history of LBW with

stunting in toddlers . Different with research conducted by Soviyati , Utari , & Marselina (2020) which states that no there is influence Among birth weight _ with stunting incident . According to assumption researcher no existence connection Among history of LBW with stunting in toddlers because fulfillment adequate nutrition _ after born like exclusive breastfeeding and complementary feeding _ _ needs nutrition so that growth and development optimal child with thereby risk the occurrence of stunting can avoided .

D. Connection history exclusive breastfeeding _ with stunting incident

Analysis result connection history exclusive breastfeeding _ with stunting shows _ that there is connection Among connection history exclusive breastfeeding _ with stunting incident . Statistical test results obtained OR value = 2,545 means child who doesn't get 2.545 times more exclusive breastfeeding risky grow stunting compared exclusively breastfed children . _ _ According to WHO (2013) one of the the cause of stunting is not exclusive breastfeeding , with exclusive breastfeeding _ to baby could lower possibility the incidence of stunting in toddlers , p This is also stated in the 1000 HPK movement launched by the government Republic of Indonesia. Breast milk is very necessary for growth and development intelligence child . Breast milk consumption also increases immunity body baby so that lower risk disease infection and reduce risk of stunting. The size the effect of exclusive breastfeeding on nutritional status child led WHO to recommend implementing intervention enhancement breastfeeding for 6 months _ first as one _ step for achieve the WHO Global Nutrition Targets 2025 regarding drop the number of stunting in children under five years . Thing this in line with research conducted by Ni'mah and Nadhiroh (2015) which states : that there is connection Among exclusive breastfeeding _ with stunting incident . Study Other research conducted by Larasati (2018) shows there is connection Among exclusive breastfeeding _ with stunting incident . According to assumption researcher exclusive breastfeeding _ since baby born until with 6 months old could prevent risk the occurrence of stunting because breast milk is a food best for baby new born because contain Substances needed by babies _ new born and continued with MP-ASI at the age of 6 months so that growth and development baby be optimal.

E. Connection history disease infection with stunting incident

Research results this showing that no there is connection Among history disease infection

with stunting incident . Disease history infection in the study this that is history of ARI and diarrhea in one year final seen through frequency the pain . It says have history disease infection if During one year final child have history poet infection more than 3 times . Disease rate infection in the group cases and groups control that is 3 times during one year last . Based on theory Aridyah (2015) stated that reason direct malnutrition is one that is disease infection . Disease infection could reduce food intake , interfere with absorption substance nutrition , cause loss substance nutrition by direct , increase needs metabolic . There is interaction back and forth between nutritional status with disease infection . Malnutrition could increase risk infection , while infection could cause leading to malnutrition to circle devil . If condition this occur in long time and no quick overcome so could reduce food intake and interfere with absorption substance nutrition , so could increase risk occurrence of stunting in children toddler . Theory the in line with results research conducted by Novikasari , Setiawati & Subroto (2020) which states that there is a relationship history disease infection with stunting incident . Research results Another study conducted by Solin, Hasanah & Nurchayati (2019) showed that there is significant relationship _ Among incident disease infection to incident stunting in toddlers . Different with results study this is what shows no there is connection Among history poet infection with stunting incident . Likewise with _ results study Astuti (2019) which shows that no there is meaningful relationship _ Among history poet infection with stunting incident . According to assumption researcher no existence connection Among history disease infection with stunting events can because gift intake adequate food during the healing period , good hygiene and sanitation , and knowledge method nurse child when sick owned by mother so that the risk of stunting can avoided.

Conclusion

Of the 150 respondents consisting of 75 case groups and 75 control groups, it was found that in the case group from mother with KEK history During pregnant by 40 % , history of anemia for pregnant 68%, history baby weight _ born low 12%, history breastfeeding is not exclusive 66.7%, and who have history infection 42.7%. While in the group control from mother with KEK history during pregnant by 8%, history of anemia for pregnant 45.3%, history baby weight _ born low 5.3%, history breastfeeding is not exclusive 44%, and has history infection 38.7%. there is connection between nutritional status mother

pregnant , mother's Hb level pregnancy , and history exclusive breastfeeding _ with stunting incident . Not there is connection Among baby weight _ birth , history disease infection with stunting incident . And the f actor that is most related to the incidence of stunting is the nutritional status of pregnant women with an OR value of 7.667 meaning mother pregnant with history of SEZ 7,667 times more risk the child that was born grow stunting compared with mother pregnant not SEZ.

References

Anwar, F., Khomsan , A., Mauludyani , A., (2014), *Stunting Problems and Solutions Due to Malnutrition in Rural Areas , IPB* Press, Bogor.

Aridiyah , F., O., Rohmawati , N., Ririanty M., (2015) , Influencing Factors Stunting Incidence in Toddlers in Rural and Urban Areas (*The Factors Affecting Stunting on Toddlers in Rural and Urban Areas*), *e - Journal of Pustaka Kesehatan* , **Vol. 3** , No. 1, 163-170.

Arikunto , S., (2010), *Procedure Research* , Rineka Cipta , Jakarta.

Arisman , (2005), *Nutrition In cycle Life* : Science Textbook _ Nutrition , Ed 2, Publisher Book EGC Medicine , Jakarta.

Astutik , A., Rahfiludin , MZ, Aruben , R., (2018), Factor Risk Stunting Incidents in Toddlers Age 24-59 Months (Study Cases in the Work Area Public health center Gabus II Pati Regency in 2017), *Journal of Public Health,* **Vol. 6** , No. 1.

Alfarisi , R., Nurmalasari , Y., Nabilla, S., (2019), Nutritional Status of Pregnant Women Could Cause Stunting Incidents in Toddlers *, Journal obstetrics ,* **Vol. 5** , No. 3, 271-278.

Directorate Community Nutrition , Director General public health Ministry of Health RI., (2016), *Guidelines and Management of Anemia in Adolescent Girls and Women Age Subur (WUS)* , Ministry of Health of the Republic of Indonesia *,* Jakarta.

Dewi , NT, Widari , D., (2018) Relationship Low Birth Weight and Disease Infection with Stunting Incident of Baduta in Maron Kidul Village Maron District , District Probolinggo . *Journal Amerta Nutrition,* **Vol. 2** , No. 4.

Fikawati , S., (2017), *Child and Adolescent Nutrition* , Raja Grafindo Persada , Depok.

Gibney, et al, (2002), *Public Health Nutrition* , Publisher Book EGC Medicine , Jakarta.

Hastono , S., P., (2007) *Health Data Analysis* , Faculty of Public Health, University of

Indonesia, Depok.

Irianto , K., (2014) *Epidemiology Disease Contagious and Not Contagious* , Alphabet . Bandung.

Ministry of Health , RI., (2010), *Ministry of Health Number 1995/MENKES/SK/XII/2010 Regarding Standard Anthropomentry Assessment of Child Nutritional Status* , Ministry of Health of the Republic of Indonesia, Jakarta.

Health , RI., (2018), *Main Results of Riskesdas 2018* , Ministry of Health of the Republic of Indonesia, Jakarta.

Health , RI., (2020), Indonesia Health *Profile 2019* , Ministry of Health of the Republic of Indonesia, Jakarta.

Lemenshow , S., (2007) *Big Sample in Health Research ,* Gadjah Mada University Press , Yogyakarta.

Masithah , TS, Martianto , D., (2005), Parenting Relationships Eating And Health With The Nutritional Status Of Toddlers In The Village Your Majesty Harja , *Nutrition Media ,* 2005, **Vol. 29** , No. 2, 29-39.

Ni'mah , K., Nadhiroh , SR, (2015) , Related Factors with Stunting Incidents in Toddlers . *Indonesian Nutrition Media* , **Vol. 10** , 13-19.

Novikasari , L., Setiawati , Subroto, T., (2020), Relationship of Disease History Infection with Stunting Incidence in Children 12-59 Months , *Jurnal Midwifery Malahayati ,* **Vol. 7** , No. 2, April 2021.

Paudel , R., et al. (2012), Risk Factors for Stunting Among Children: a Community Based Case Control Study in Nepal, Kathmandu University, *Medical Journal* , **Vol. 10** , No. 3, 18-24

Data and Information Center Ministry of Health, RI., (2018), Situation Toddler Short (Stunting) in Indonesia, *Bulletin Health Data and Information Window* , **Edition I** , 1 – 13.

Data and Information Center Ministry of Health, RI., (2018), Intake Optimal Nutrition for Prevent Stunting, *Newsletter Health Data and Information Window* , **Issue I** , 19-30.

Rukmaini , Azenda , R., Maesyaroh , (2020), The Relationship of Anemia in Pregnant Women with Stunting in Toddlers at the Puskesmas North Jakarta Pademangan , *Report Stimulus Research* , National University, Jakarta.

Sampe , SA, (2020), Relationship Exclusive Breastfeeding _ with Stunting Incidents in Toddlers , *Journal Scientific Health Sandi Husada ,* **Vol. 11** , No. 1.

Sukmawati , (2018), Current Mother 's Nutritional Status Pregnant , Birth Weight of Babies with Stunting in Toddlers Age 06-36 Months at Puskesmas Bontoa , *Nutritional Media Food* , **Vol. 25** , No. 1.

Supriasa , IDN, (2010), *Assessment of Nutritional Status* , Publisher Book EGC Medicine , Jakarta.

Sulistyoningsih , H., (2011), *Nutrition for Maternal and Child Health* , Graha Science , Yogyakarta.

Susilowati , K., (2016) *Nutrition in cycle Life* , Refika Aditama , Bandung.

Soekirman ., (2010) *Science Nutrition and Its Applications* , Directorate of Higher Education Ministry of National Education, Jakarta.

Soetjiningsih , INGR (2013), *Growing up Flower Children* , Publisher Book EGC Medicine , Jakarta.

Soviyati , E., Utari , TSG, Marselina S., (2021) , Related Factors with Stunting Incidents in the District Cigandamekar Regency Kuningan , *Journal of Midwifery Care* , **Vol. 01,** No. 02.

Tatu, SS, Mau, DJ, Rua , YM, (2020), Factors Associated Risks _ with Stunting Incidents in Toddlers in the Village Kabuna Subdistrict Kakuluk Cook Regency Belu , *Journal Friend Nursing* , **Vol. 3** , No. 1.

Acceleration National Team Countermeasures Poverty , (2017), *100 Priority Districts /Cities for Stunting Intervention* , Vice President 's Secretariat _ Republic of Indonesia, Jakarta.

Trihono , et al ., (2015), *Short (Stunting) in Indonesia, Problems and Solutions* , Health Research and Development Agency, Ministry of Health of the Republic of Indonesia, Jakarta,.

United Nations Children's Fund, World Health Organization, World Bank Group, (2018), *Levels and Trends in Child Malnutrition* , Key Findings of The 2018 Edition of The Joint Child Malnutrition Estimates.

Warsini , KT, (2016) History of SEZ and Anemia in Pregnant Women Not Relate with Stunting Incidence in Children Age 6-23 Months in Kecamatan Sedayu , Bantul, Yogyakarta. *Journal Indonesian Nutrition and Dietetics* , **Vol. 4** , No. 1.

WHO, (2011), *Haemoglobin Concentrations for the Diagnosis of Anemia and Assessment of Severity* , World Health Organization, Geneva,.

WHO, (2018), *Reducing Stunting in Children,* World Health Organization,, Geneva.

Widyaningrum , D., A., Romadhoni , D., A., (2018), History of Pregnancy Anemia with Stunting Incidents in Toddlers in the Village bunch Trade Madiun , *Journal Scientific Health Medica Majapahit* , **Vol. 10** , No. 02.

Widoyono , (2011), *Disease Tropical : Epidemiology , Transmission , Prevention and*

Eradication , Jakarta, Erlangga .