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## **The Role of Education and Knowledge Management in Stunting Prevention and its Impact on Educational and Economic Factors**

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### ***Abstract:***

*This research aims to see the influence of education and knowledge management on stunting prevention and its impact on educational and economic factors in West Java. In conducting research, the author used a quantitative approach, descriptive verification design and survey methods. A total of 100 activist mothers were used as respondents for this study. Path Analysis is used to analyze the data. The following are the results of the research: First, education and knowledge management have a significant influence on stunting prevention simultaneously. Second, education has a significant influence on partial prevention of stunting. Third, Knowledge Management has a significant influence on partial stunting prevention. Fourth, Stunting Prevention has a significant effect on Education and Economic Factors. Fifth, Education and Knowledge Management have a significant effect on Economic Factors through the mediation of Stunting Prevention. In general, it can be concluded that the role of education and knowledge management is useful in reducing the problem of stunting..*

**Keywords:** Knowledge Management; Stunting Prevention; Education; Economic Factors

## **1. Introduction**

StuntingUntil now it is still a crucial problem for Indonesia. This is confirmed by the statement that stunting is a serious problem in achieving a quality Indonesian society as explained by the Ministry of Health. Because stunting does not only interfere with physical problems, but more than anything, children's brain development will be disrupted, which will ultimately have an impact on their learning abilities and school performance. Apart from that, stunting sufferers will become unhealthy, this is due to a weak immune system. What is more serious is that this problem will also affect future generations if it is not resolved completely.

In briefstuntingrelated to the problem of malnutrition caused by a long-term lack of nutritious food which can disrupt the growth of children. Furthermore, stunting is also one of the factors causing stunted height in children. Basically, genetic factors have a small influence on children's health compared to environmental factors and health

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services. In general, stunting occurs when children are still in their mother's womb and begins to appear when they are two years old.

The first step in overcoming this is that they recommend that babies between the ages of 6 and 23 months be able to obtain maximum breast milk (MPASI) intake (World Health Organization (WHO) & United Nations Children's Fund (UNICEF)). These foods should contain various foods such as cereals, nuts, milk, and supplemented with eggs intake containing elements of vitamin A. There are other things that must be given special attention related to the minimum meal frequency (MMF) provisions for toddlers aged 6 to 23 months who are not breastfed and receive MPASI instead.

Meanwhile, from the results of a study conducted, stunting conditions in Indonesia decreased in 2019 by 27.7%; in 2021 it will be 24.4% and in 2022 it will be 21.6%, where this is experienced by the majority of children aged between 3 and 4 years, amounting to 6% (Indonesian Nutrition Status Study, Ministry of Health). However, this figure still does not meet WHO standards, where they set a target of less than 20%. Therefore, the government continues to strive to reduce this figure to 17% in 2023 and 14% in 2024. In reality, this problem is not just an issue related to whether people are healthy or not, but it can have implications for social and economic problems. for them in the future. Children affected by stunting will be physically and mentally disturbed, their bodies vulnerable to illness, problems with nutritious food, problems related to inadequate education, and ultimately impact on things related to economic problems in the future (Putri, 2023) . From the results of the study, it was found that the fundamental problem regarding this in our country is due to factors related to nutrition, a healthy environment and clean water, the condition of mothers who are not healthy, not understanding nutritional issues, mothers who are not yet aware of the problem. stunting, and problems related to the economy and social (Lestari, 2023).

In current developments, conditions in West Java are based on research results showing that West Java has succeeded in reducing the number of stunting problems from 31.1% to 10.9% in 2018; and in 2022 it will be 20.2% (Indonesian Nutrition Status Survey). Thus, these cases decreased on average by 2.72% per year. Based on these achievements, the current Governor of West Java, Bey Machmudin, believes that the target that has been set at 14% can be realized in 2024 as set by the central government. Referring to data from e-PPGBM or electronic Community Based Nutrition Recording and Reporting, the value related to the stunting problem in West Java is now only 6.01%. This was obtained through data based on the names and addresses of sufferers on 15 October 2023 amounting to 178,058, from a total of 183,440 in 2022. These figures are already in the low category; However, there is a slight difference in the figure of 14.19% when compared with the figure from SSGL. However, efforts to improve data quality have been carried out by conducting research on health in Indonesia or what is known as the Indonesian Health Survey in 2023 by using a larger sample. (<https://jabarprov.go.id/berita,10/23/2023>)

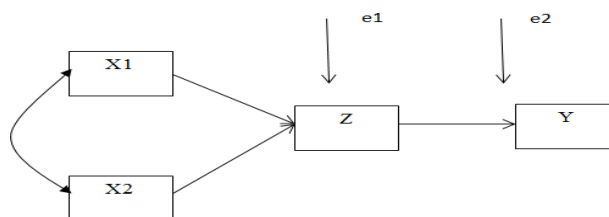
The problems that will be answered in this study are: First, do Education and Knowledge Management have a significant impact on Stunting Prevention

simultaneously? Second, does education have a significant impact on partial prevention of stunting? Third, does Knowledge Management have a significant impact on partial Stunting Prevention? Where does Stunting Prevention have a significant effect on Education and Economic Factors? Fifth, does education and knowledge management have a significant effect on educational and economic factors mediated by stunting prevention?

Based on the matters above, the author of the research related to "The Role of Education and Knowledge Management in Stunting Prevention and Its Impact on Educational and Economic Factors".

## 2. Methodology

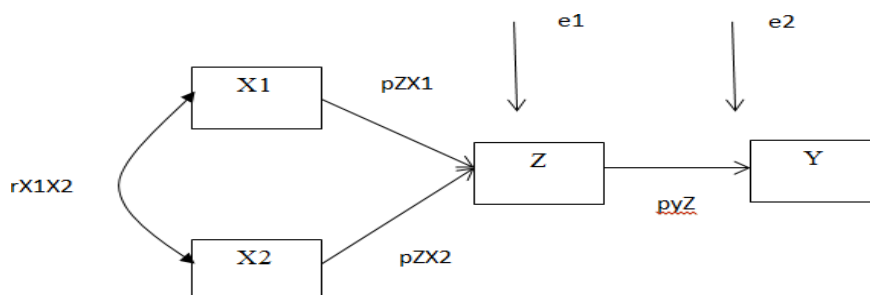
The author used quantitative research with survey methods in this study. A total of 100 activist mothers at Posyandu were selected purposively to serve as respondents and were asked to fill out a questionnaire that was sent online. Path analysis was used in this research as a means of analyzing direct and indirect effects. ) with the help of SPSS software (Narimawati, Umi & Sarwono, Jonathan, 2020); while the mediation model was analyzed using Process Andrew Hayes software. The path diagram model is as follows:



Where:

X1: Education; X2: Knowledge Management; Z: Stunting Prevention; Y: Education and Economic Factors

Below is a diagram of the relationship path between variables.



### 3. Empirical Findings/Result

First Structural Equation: Calculating the influence of Education and Knowledge Management on Stunting Prevention

R<sup>2</sup> Value (R Squared)

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.978 <sup>a</sup>	.957	.952	1.001

a. Predictors: (Constant), Knowledge Management, Edukasi

The R squared value of 0.957 means that the variability of the endogenous variable Stunting Prevention can be explained using the exogenous variables Education and Knowledge Management. In other words, the R squared value is the magnitude of the influence of the exogenous variables Education and Knowledge Management on the endogenous variable Stunting Prevention. Thus it can be concluded that the influence of Education and Knowledge Management on Stunting Prevention is 0.957 (95.7%).

Simultaneous Hypothesis Testing

H<sub>0</sub>: Education and Knowledge Management do not have a significant influence on stunting prevention simultaneously

H<sub>1</sub>: Education and Knowledge Management have a significant influence on stunting prevention simultaneously

Hypothesis testing criteria are as follows:

If the significance value (Significance) of the SPSS output is <0.05; then reject H<sub>0</sub> and accept H<sub>1</sub>

If the SPSS output significance value is > 0.05; then accept H<sub>0</sub> and reject H<sub>1</sub>

#### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	382.701	2	191.351	190.802	.000 <sup>b</sup>
	Residual	17.049	17	1.003		
	Total	399.750	19			

a. Dependent Variable: Pencegahan Stunting

b. Predictors: (Constant), Knowledge Management, Edukasi

In the output table above, it can be seen that the significance value (Sig) is 0.000 < 0.05; meaning that a rejects H<sub>0</sub> and accepts H<sub>1</sub>. This means that education and knowledge management have a significant influence on preventing stunting simultaneously.

## Partial Hypothesis Testing

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.416	.744		1.902	.074
	Edukasi	.529	.198	.548	2.665	.016
	Knowledge Management	.392	.184	.438	2.130	.048

a. Dependent Variable: Pencegahan Stunting

First: The relationship between education and stunting prevention

### Hypothesis

H0: Education does not have a significant effect on partial prevention of stunting

H1: Education has a significant influence on partial prevention of stunting

From the calculation results table, it is found that the significance value is  $0.016 < 0.05$ ; therefore reject H0 and accept H1. This means that education has a significant influence on partial prevention of stunting. The magnitude of the effect is 0.348, which means that when the Education value changes by one unit, the Stunting Prevention value increases by 0.348.

Second: The relationship between Knowledge Management and Stunting Prevention

### Hypothesis

H0: Knowledge Management does not have a significant influence on stunting prevention alone

H1: Knowledge Management has a significant influence on stunting prevention alone

From the calculation results table, it is found that the significance value is  $0.048 < 0.05$ ; thus reject H0 and accept H1. This means that Knowledge Management has a significant influence on partial stunting prevention. The magnitude of the effect is 0.548, which means that when the Knowledge Management value changes by one unit, the Stunting Prevention value will increase by 0.048.

Second Structural Equation: Calculating the effect of Stunting Prevention on Education and Economic Factors R2 Value (R Squared)

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.978 <sup>a</sup>	.956	.954	.988

a. Predictors: (Constant), Pencegahan Stunting

The R squared value of 0.956 means that the variability of the endogenous variable Education and Economic Factors can be explained using the Stunting Prevention variable. Using other words, the R squared value is the magnitude of the influence of the Stunting Prevention variable on the endogenous variable Education and Economic

Factors. Thus it can be concluded that the effect of Stunting Prevention on Education and Economic Factors is 0.956 (95.6%)

Hypothesis: Relationship between Stunting Prevention and Education and Economic Factors

H0: Stunting prevention does not significantly influence education and economic factors

H1: Stunting prevention has a significant effect on education and economic factors

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.565	.786		.719	.481
	Pencegahan Stunting	.979	.049	.978	19.814	.000

a. Dependent Variable: Faktor Pendidikan dan Ekonomi

From the calculation results table, it is found that the significance value is  $0.000 < 0.05$ ; thus reject H0 and accept H1. This means that Stunting Prevention has a significant influence on Education and Economic Factors. The magnitude of the effect is 0.978, which means that when the Stunting Prevention value increases by one unit, the Education and Economic Factor value will increase by 0.978.

Mediation Model:

Hypothesis

H0: Education and Knowledge Management do not have a significant influence on Economic Factors mediated by Stunting Prevention

H0: Education and Knowledge Management have a significant influence on Economic Factors mediated by Stunting Prevention

OUTCOME VARIABLE:  
faktor

Model Summary

R	R-sq	MSE	F	df1	df2	p
.9814	.9632	.9848	98.0454	4.0000	15.0000	.0000

For hypothesis testing, the following criteria are used:

If the significance / probability value (P value)  $< 0.05$ ; then reject H0 and accept H1

If the significance / probability value (P value) is  $> 0.05$ ; then accept H0 and reject H1

From the calculation output above, the probability value (P) is  $0.000 < 0.05$ ; thus reject H0 and accept H1. This means that Education and Management of Knowledge have a significant effect on Economic Factors through the mediation of Stunting Prevention. The magnitude of the influence is 0.936 or 93.6%.

#### **4. Discussion**

First, education and knowledge management have a significant effect on stunting prevention simultaneously. Education has a major role in preventing stunting; This is because with education mothers are given knowledge about the dangers of stunting. Research conducted by Adrianah et al. (2022) in Lampoko village, Barru Regency, proves the effectiveness of education through community empowerment in preventing stunting. In line with this problem, the results of research conducted in Margajaya Village, Tanjung Sari District, Sumedang Regency, West Java prove that health education in the context of education among Posyandu cadres in this village plays an important role in preventing stunting in the area. Andoyo, Robi et al. , (2023). . In relation to eliminating the stunting problem in Indonesia, a study conducted by Miranda, Adriana V., et al. (2023) the community health workers (CHW) group, which is a special group dealing with stunting problems in Indonesia, succeeded in conducting a study of the current involvement of CHWs in stunting programs in Indonesia, remaining problems, and recommendations for mitigating identified challenges. . Improvements in recruitment processes, recognition, and incentive systems, as well as cross-sector collaboration, particularly in the creation of evidence and policy continuum research, are critical to improving current programs and achieving the goal of eradicating stunting in Indonesia.

Second, education has a significant effect on partial stunting prevention. In research regarding stunting prevention education for mothers of toddlers at Posyandu Dahlia, Sadang village, Jekulo District, Kudus Regency, through this education the mothers gained understanding and changed their mindset regarding the problem of stunting related to what stunting means, what the causes are, signs , symptoms, consequences and how to prevent stunting problems (Listyarini, AD, 2024).

Third, Knowledge Management has a significant effect on partial stunting prevention. Knowledge management plays an important role in understanding the problem of stunting considering that there are still many members of society, especially mothers, who do not yet understand the dangers of stunting on children's development, which can have an impact on their development factors involving physical matters and those related to mental issues and other aspects. their cognitive. In research conducted by Milah, Ana, S., et al. (2023) proves that knowledge management is related to detecting toddler problems and education regarding health in the population's environmental areas in relation to how to overcome the problem of stunting among mothers who seek treatment at the Manonjaya Community Health Center, Tasikmalaya Regency, proving that cadres can re-practice their skills and knowledge about how toddlers grow and develop, how to properly provide nutritious food for children, knowing the number of toddlers affected by stunting, environmental health and early detection of stunting problems.

Fourth, Stunting Prevention has a significant effect on Education and Economic Factors. The long-term impact of stunting among toddlers is not just a physical problem but will also have an impact on educational problems where on average children affected by stunting tend to be slow in learning which in the future will have

an impact on economic problems because they will not be able to compete in the world. look for work with normal people. In essence, the problem of stunting must be understood as early as possible when children are toddlers and when they are still in kindergarten (Kirana, Rita., et al., 2022). Related to this problem, another research was conducted in Aenganyar Village, Giligenting District, Sumenep Regency through education and training in preventing the dangers of stunting among elementary school children (Hidayatilah, Yeti, et al., 2023).

Fifth, Education and Knowledge Management have a significant effect on Economic Factors through the mediation of Stunting Prevention. In relation to the problem of stunting, research conducted in the cities of Karawang, Tasikmalaya, Garut, Bandung, Subang, Sukabumi, Cianjur and West Bandung shows that there are determinant factors for the problem of stunting, namely socio-demographic problems, such as gender, education, income. and employment among parents; knowledge management (knowledge management); and the motivation of cadres who can increase their knowledge regarding the problem of stunting increases (Mediani, Henni Suzana, et al., 2022). What has happened in other countries such as India (Asia) and Sub-Saharan Africa (Africa) shows that the four main characteristics of the impact of stunting are height growth patterns: size at birth, size at adulthood, time of accelerated pubertal growth, and speed of maturity; That is why it is necessary to manage knowledge about stunting not only in one country but globally to find out trends in stunting symptoms and how to prevent it (Eric B. Schneider, 2023).

## 5. Conclusions

In this research the author draws the following conclusions: First, education and knowledge management have a significant influence on stunting prevention simultaneously. Second, education has a significant influence on partial prevention of stunting. Third, Knowledge Management has a significant influence on partial stunting prevention. Fourth, Stunting Prevention has a significant effect on Education and Economic Factors. Fifth, Education and Knowledge Management have a significant effect on Economic Factors through the mediation of Stunting Prevention.

### Suggestions

The suggestion given is that the author encourages parties involved in stunting prevention activities in West Java to increase education and use of knowledge management among Posyandu cadres and mothers with children under five to actively carry out stunting prevention activities in their respective areas. Each

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