The capability of village devices in stunting prevention in Nagan Raya District

Kapabilitas perangkat desa dalam pencegahan stunting di Kabupaten Nagan Raya

Susy Sriwahyuni¹, Safrizal SA², Darmawan³, Danvil Nabela⁴, Ridha Ilham⁵, Teuku Muliadi⁶

Abstract

Indonesia is the second highest contributor to stunting in Southeast Asia, so prevention is necessary to reduce the prevalence of stunting to the maximum. One of the efforts that can be made is to establish synergy between the government and the community and strengthen capacity building for village officials. This study aims to see the ability of village officials to prevent stunting in the Nagan Raya District. This descriptive-analytic research method with a cross-sectional design was conducted in April 2021. The population consists of 220 villages in Nagan Raya District. The sampling technique used the cluster sampling technique so that 12 villages were obtained with 96 respondents. They are collecting data using a questionnaire instrument. The test in this study used logistic regression for bivariate analysis and multiple logistic regression for multivariate analysis. The results showed that there was a significant relationship between increasing the capability of village officials and the variable level of education (p= 0,040; OR= 2,77), knowledge (p= 0,001; OR= 7,22) implementers (p= 0,002; OR= 8,54) and manager (p= 0,001; OR= 11,05). The conclusion is that there is a significant relationship between the variables of education, knowledge, implementers, and managers. There is no significant relationship between the variables of age, income, and training with the ability of village officials to prevent stunting.

Keywords: Capabilities, prevention, stunting, village device role

Abstrak

Indonesia merupakan penyumbang angka stunting tertinggi kedua di Asia Tenggara sehingga perlu dilakukan pencegahan agar prevalensi stunting dapat diturunkan dengan maksimal. Salah satu upaya yang dapat dilakukan adalah membentuk sinergitas antara pemerintah bersama masyarakat dan pengucapan capacity building kepada perangkat desa. Tujuan penelitian untuk melihat kemampuan perangkat desa dalam upaya pencegahan stunting di Kabupaten Nagan Raya. Metode penelitian dilakukan secara deskriptif analitis menggunakan desain cross-sectional, yang dilakukan pada bulan April tahun 2021. Teknik pengambilan sampel menggunakan teknik cluster sampling sehingga didapatkan 12 desa dengan total 96 responden. Pengumpulan data menggunakan instrumen kuesioner. Analisis bivariate menggunakan uji regresi logistik dan analisis multivariate menggunakan uji regresi logistik berganda. Hasil penelitian menunjukkan terdapat hubungan yang signifikan antara peningkatan kapabilitas perangkat desa dengan variabel tingkat pendidikan (p= 0,040; OR= 2,77), pengetahuan (p= 0,001; OR= 7,22), pelaksana (p= 0,002; OR= 8,54) dan manager (p= 0,001; OR= 11,05). Kesimpulan: ada hubungan yang signifikan variabel pendidikan, pengetahuan, pelaksana dan pengelola dan tidak ada hubungan yang signifikan variabel umur, pendapatan dan pelatihan dengan kemampuan peran aparat desa dalam pencegahan stunting.

Kata Kunci: Kapabilitas, peran perangkat desa, pencegahan, stunting
Introduction

Health is a human right (1945 Constitution, article 28 H paragraph 1 and Law No. 23 of 1992) and, at the same time, an investment. Hence, it needs to be pursued, fought for, and improved by every individual and by all components of the nation, so that people can enjoy healthy living and ultimately can realize an optimal degree of public health (Rai et al., 2021). This needs to be done because health is not the government’s responsibility alone but is a shared responsibility of the government and the public, including the private sector (Florini & Pauli, 2018). In line with the development paradigm development, the direction of health development policy has been established in the Medium Term Development Plan (RPJM) 2020-2024 in the Field of Health, prioritizing preventive and promotive efforts and the empowerment of families communities in the field of health. One form of community empowerment efforts in health is to grow integrated health services (called Posyandu) (Mediani et al., 2020).

Integrated Healthcare Center is one form of Community Resource Health Effort organized from, by, for, and with the community in the implementation of health development, to empower the community and provide convenience to the community in obtaining basic health services, especially to accelerate the decline in maternal and infant mortality (Didah et al., 2020).

In addition to maternal and infant mortality, the nutritional status of toddlers is also a severe health problem, and nutritional status is a condition caused by the balance between the amount of nutritional intake and the body’s dietary needs (Rahmad & Miko, 2016). Nutritional status, especially toddlers’ nutritional status, is one of the indicators of human resource quality that determines the level of community welfare, which will determine the quality of human resources (Cantor & Thorpe, 2018). Such is the strategic status of nutrition in human development efforts in Indonesia so that it is set as one of the targets and targets of the National Medium Term Development Plan (RPJMN) in the field of health, namely reducing the prevalence of wasting and stunting (Farisni & Zakiyuddin, 2020).

Stunting is a condition of failure to thrive in children under five due to chronic malnutrition, especially in the first 1,000 days of life (HPK) (Muliadi et al., 2021). Stunting affects brain growth and development. Stunting children also have a higher risk of suffering from chronic diseases in adulthood. Stunting and malnutrition are estimated to contribute to a 2-3% reduction in Gross Domestic Product (GDP) each year (Svefors et al., 2020; Al Rahmad et al., 2013). Stunting impacts the level of intelligence, and vulnerability to disease reduces productivity and then inhibits economic growth, increasing poverty and inequality (Al Rahmad, 2020).

Based on the Basic Health Research results in 2018, stunting in Acehnese toddlers was ranked 3rd out of 34 provinces in Indonesia with a prevalence of 37.3%, meaning that 1 out of 3 toddlers in Aceh was stunted, higher than the Indonesian (30.8%). The higher stunting rate occurs in children’s first two years, where Aceh is ranked first with the highest prevalence (37.9%) compared to the national average (29.9%) (Kemenkes RI, 2018). According to the BPS in 2018, Nagan Raya Regency was one of the regencies in Aceh province that contributed to the stunting rate of 40.6%. Stunting reduction is designated as a national priority program that must be included in the Government Work Plan (RKP), starting from the central government to the village level government (Dany et al., 2020).

As the administrator of government in the village, the village government, carried out by the village head and assisted by the village apparatus as an element of the village administration, has an essential role in preventing stunting at the village level. The village government has the role of manager and implementation by monitoring programs run by the village government (Khamling et al., 2021). Related parties include the monitoring program for infant growth and development as a health effort to prevent stunting in the working area of the village government. The village government monitors cadres and increases community participation so that stunting prevention goes well, safely, and in an orderly manner (Arwildayanto et al., 2022).

The purpose of this study was to see how much influence the village apparatus, both the level of knowledge and education, had in influencing stunting in the Nagan Raya District.
Methods
Analytical research has used a cross-sectional design, which is to conduct measurement studies and observations on the dependent and independent variables at the same time (Bloomfield & Fisher, 2019).

This study focuses on the role of village officials in preventing stunting in Nagan Raya Regency, whose main object is Stunting with a stunting prevention variable, namely monitoring the growth and development of toddlers. This research was conducted in April 2021 in Nagan Raya district, Aceh Province. The population in this study were all devices in 220 villages in Nagan Raya Besar Regency. The sample in this study used cluster sampling so that 12 villages in Nagan Raya Regency were obtained with a total of 96 respondents. Nagan Raya district contributes to the stunting rate of 40.6% in Aceh province.

The sampling technique in this study used proportional random, i.e., each village apparatus to be sampled was taken proportionally based on the number of village officials in the entire area of Nagan Raya District.

Collecting data using a questionnaire instrument and processing includes editing, coding, and tabulation. The independent variables studied include age, income, education, knowledge, training, and implementers, and the dependent variable is stunting prevention.

Data analysis uses non-parametric, including univariate, bivariate, and multivariate analysis. Bivariate test analysis using IBM Statistic SPSS 20. we use the data set that we obtained primary. Data were processed using with Chi-square test with 95% confidence. The test in this study used logistic regression for bivariate analysis and multiple logistic regression for multivariate analysis. This research has received ethical approval from the Health Research Ethics Commission (KEPK) of the Faculty of Public Health, Teuku Umar University, with Number: 1055/KEPK/UN59.2/TU/2021.

Results and Discussion
Table 1 shows that the proportion of respondents have good knowledge of toddler growth monitor by 81.2%, greater than respondents with less good knowledge of toddler growth monitor by 37.5%. In comparison, the proportion of respondents who know less about tracking infant growth and development is less good by 62.5% greater than respondents who know well about monitoring toddler growth monitor, as good at 18.8%.

Value OR= 7.22 respondents who mean less good knowledge respondents are seven times more likely to monitor the growth and development of infants less well than respondents with good knowledge. The results of statistical tests with a confidence level of 95% show a significant relationship between knowledge and monitoring of toddler growth monitor in Nagan Raya District in 2021 (p=0.001).

Knowledge is a variable that should be considered in improving understanding, especially village devices. Because the village device is the main responsible for declaring that the village is healthy and free from all diseases (Yuliani et al., 2018), village devices must play an active role in helping health cadres, especially in creating stunting eradication programs promoted by the government must be supported so that it is sustainable between the center and the region. From the results of observations in the field, there is still a lack of understanding related to stunting. In this study found the root cause of the increasing number of stunting in 12 villages and five sub-districts located in Nagan Raya District.

Good knowledge of the definition of stunting can provide a positive understanding and rapid response, especially on village devices in preventing stunting because stunting countermeasures are imposed not only on the government but also on all Indonesian families. Stunting has a bad impact on the future of future successor children because the real impact has been seen both in terms of intelligence and also the problem of diseases. Both degenerative and infectious, they often cause a decrease in productivity in adulthood (Arbie & Labatjo, 2019)—or advanced so that through knowledge of village devices can be monitored and evaluated, government programs are encouraged until the village reaches the right targets related to stunting prevention (Hidayah & Marwan, 2020).
Table 1. Analysis of independent variable with toddler growth monitor prevention in Nagan Raya Regency in 2021

<table>
<thead>
<tr>
<th>Variable</th>
<th>Toddler Growth Monitor</th>
<th></th>
<th>Total</th>
<th></th>
<th>OR (95% CI)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Good</td>
<td>Lack</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Productive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Productive (≥ 60 years)</td>
<td>60</td>
<td>67,4</td>
<td>29</td>
<td>35,6</td>
<td>89</td>
<td>100</td>
</tr>
<tr>
<td>Lack productive &lt; 60 years</td>
<td>4</td>
<td>57,2</td>
<td>3</td>
<td>42,8</td>
<td>7</td>
<td>100</td>
</tr>
<tr>
<td>Minimum Wage*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PMW ≥ IDR 3.100.000</td>
<td>9</td>
<td>81,8</td>
<td>2</td>
<td>18,2</td>
<td>11</td>
<td>100</td>
</tr>
<tr>
<td>PMW &lt; IDR 3.100.000</td>
<td>55</td>
<td>64,7</td>
<td>30</td>
<td>32,3</td>
<td>85</td>
<td>100</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Higher education (D3, S1)</td>
<td>28</td>
<td>80,0</td>
<td>7</td>
<td>20,0</td>
<td>35</td>
<td>100</td>
</tr>
<tr>
<td>Secondary (&lt; SHS)</td>
<td>36</td>
<td>59,0</td>
<td>25</td>
<td>41,0</td>
<td>61</td>
<td>100</td>
</tr>
<tr>
<td>Training</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training (≥ 2)</td>
<td>31</td>
<td>59,6</td>
<td>21</td>
<td>40,4</td>
<td>52</td>
<td>100</td>
</tr>
<tr>
<td>Lack Training (&lt;2)</td>
<td>33</td>
<td>75,0</td>
<td>30</td>
<td>11,0</td>
<td>44</td>
<td>100</td>
</tr>
<tr>
<td>Knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good Knowledge (≥ 15)</td>
<td>52</td>
<td>81,2</td>
<td>12</td>
<td>18,8</td>
<td>64</td>
<td>100</td>
</tr>
<tr>
<td>Lack Knowledge (&lt;15)</td>
<td>12</td>
<td>37,5</td>
<td>20</td>
<td>62,5</td>
<td>32</td>
<td>100</td>
</tr>
<tr>
<td>Implementation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good (≥ 4)</td>
<td>45</td>
<td>86,5</td>
<td>7</td>
<td>13,5</td>
<td>52</td>
<td>100</td>
</tr>
<tr>
<td>Lack (&lt;4)</td>
<td>19</td>
<td>43,2</td>
<td>25</td>
<td>56,8</td>
<td>44</td>
<td>100</td>
</tr>
<tr>
<td>Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good (≥13)</td>
<td>43</td>
<td>89,6</td>
<td>5</td>
<td>10,4</td>
<td>48</td>
<td>100</td>
</tr>
<tr>
<td>Lack (&lt;13)</td>
<td>21</td>
<td>43,7</td>
<td>27</td>
<td>56,3</td>
<td>48</td>
<td>100</td>
</tr>
</tbody>
</table>

* Minimum Wage by Aceh Province

Capability of the Role of Village Officials and Their Implementation in Stunting Prevention

Based on Table 1, the proportion of respondents doing well with monitoring of good baby growth and development by 86.5% is greater than respondents who perform poorly with monitoring of good baby growth and development by 43.2%. In comparison, the proportion of respondents who perform poorer examination with poor baby growth monitoring by 56.8% is greater than respondents who perform the examination. Good with monitoring the growth and development of less good babies by 13.5%. Respondents who perform well are eight times more likely to monitor the growth and development of babies than respondents who perform poorly. The results of statistical tests with a confidence level of 95% show a significant relationship between implementation and toddler growth monitor in Nagan Raya District in 2021 (p= 0.001).

The implementation carried out in the prevention of stunting through the capability of the role of village devices located in 12 villages and five districts of Nagan Raya is to have a role in supervising the course of stunting prevention programs such as conducting supervision in the improvement of programs and the availability of funds. At the supervision stage of the program, the village device also conducts monitoring at the time of the program’s implementation. It is necessary to coordinate with officers about the implementation process (Khosiah & Muhardini, 2019).

According to the Saputri Research (2019), their innovation programs accelerate the reduction/control of stunting in their regions, such as Supplementary Feeding (PMT) to toddlers and pregnant women, giving blood tablets (called TTD) to adolescent girls. And pregnant women, increasing the range of complete basic techniques for infants and toddlers, providing vitamin A to toddlers, and giving zinc in cases of diarrhea, especially for pregnant women toddlers (Waryana et al., 2020). However, it still takes time/process for these programs to be seen in real implementation, and the significance of the results can be seen.
Based on the alternatives found in Bedasari et al. (2021) that there are several things that are important elements to see the level of effectiveness of the implementation of existing policies in Donowarih village related to stunting prevention, among others, related to the portion of policies made by the village government as a follow-up to government programs. The amount of the policy is still unequal in terms of the budget support for the running or not of the program in the village. Then, the policy on health in the village includes the availability of health facilities and health facilitators such as village midwives and other factors related to health (Sriyanti et al., 2019). In addition, it is also seen that human resources are at the forefront in relation to the handling of stunting prevention.

The success of stunting prevention personnel in carrying out tasks in Nagan Raya District is the completeness of facilities and infrastructure, leadership support, knowledge, and supervision following the tasks carried out. In addition, it is also necessary to conduct more intensive communication to the program's managing cadres given guidance in terms of reporting because it affects the program's success.

Table 1 shows that the proportion of respondents doing good management with good baby growth monitoring by 89,6% is greater than respondents who do poor management with good baby growth monitoring by 43,7%. In comparison, the proportion of respondents who do poor management with inadequate baby growth monitoring by 56,3% is greater than respondents who do poor management, with poor baby growth and development monitoring by 10,4%. Respondents who manage poorly are 11 times more likely to monitor the growth and development of babies less well, and the results of statistical tests with a confidence level of 95% show that there is a sign between the implementation and monitoring of infant growth and development in Nagan Raya District in 2021 (p = 0,001).

Managers have a role in storing data related to infant growth and development measurements, which build information systems that contain the results of stunting measurements that are tiered from Posyandu and to higher levels, both manually and online. The data must be continuously updated so that it is always up to date with the changes that occur at the measurement of the specified baby's body monitoring platform (Ganang & Gunarsi, 2021).

Table 2. Logistic regression the most dominant factor with toddler growth monitor prevention in Nagan Raya Regency in 2021

<table>
<thead>
<tr>
<th>Variable</th>
<th>Odds Ratio</th>
<th>P-Value</th>
<th>Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>2,00</td>
<td>0,223</td>
<td>0,64 - 6,26</td>
</tr>
<tr>
<td>Knowledge</td>
<td>9,10</td>
<td>0,001</td>
<td>2,86 - 29,00</td>
</tr>
<tr>
<td>Management</td>
<td>5,44</td>
<td>0,002</td>
<td>1,82 - 16,28</td>
</tr>
</tbody>
</table>

Based on table 2, two variables are issued after conducting a multivariate test using Stepwise, P-value < 0,25, namely training and implementation, these two variables are given because p-value > 0,25. Knowledge is the most dominant variable (OR= 9,10). This means that poor knowledge is nine times more likely to toddler growth monitor less well than good knowledge respondents in the Nagan Raya district in 2021 compared to other variables and statistically has significant (p= 0,001).

Conclusion

Based on the objectives that have been presented, the variables of education, knowledge, implementers and managers show that there is a significant relationship with increasing the capability of the role of village officials in preventing stunting. While the variables of age, income and training did not have a significant relationship between the capabilities of the role of village officials in preventing stunting.

It is recommended that the Village Apparatus invite every element of society to participate in carrying out programs specifically for stunting prevention, increasing collaboration between stakeholders in monitoring infant growth and development, and growing capacity for monitoring and evaluating the performance of officers in the context of acceleration in preventing stunting.

Acknowledges

Thank you to the Indonesian National Population and Family Planning Board (Called BKKBN) and Faculty of Public Health Universitas Teuku Umar, who have supported research funds. Also, to Ridha Ilham as the village head
and the entire village community who had been willing to provide research location. Furthermore, the whole research team and field guidance lecturers have helped complete the research process, preparing proposals, data collection, data processing, and journal publication.

References


