

Optimisation Model for the Role of Family Planning Villages in Growth Failure Control

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Abstract

Background: Stunting is a condition of impaired growth in young children due to chronic malnutrition, characterised by a height that is below the normal growth standards for children, as established by WHO. Stunting is attributed to prolonged insufficient nutritional intake, posing a significant challenge to community welfare. To address this challenge, optimising the role of Family Planning Villages (FPVs) has been proven effective as an innovative programme to enhance community welfare.

Objective: This research aimed to identify the implementation model of FPVs in stunting control.

Methodology: The analysis was carried out using a quantitative observational method with a cross-sectional design, including data collection through questionnaires administered to 17 FPVs and 224 respondents.

Result: The results showed that administrators played a substantial role in stunting control, contributing significantly with an efficacy rate of 34%. The understanding of standards and objectives was in line with the role of FPVs, with a considerable influence ($p=.015$) on stunting control. Furthermore, the availability of good resources was in line with the role of FPVs, with a significant influence ($p=.003$) of resources. Good environmental support also showed a substantial correlation, characterised by an influence ($p=.016$) on stunting control. Communication had an influence ($p=.046$), showing a significant correlation with FPVs, while work attitude/culture did not show an influence ($p=.266$) on stunting control.

Unique contribution: The study shows the effectiveness of the Family Planning Village programme, identifying strengths and weaknesses and providing recommendations for improvement.

Conclusion: Variables directly influencing the role of FPVs in stunting control include the understanding of standards and objectives, resources, environmental support, and organisational communication.

Key recommendation: Effective and continuous communication, including coordination, is required to strengthen the role of FPVs in stunting control.

Keywords: Family Planning Villages (FPVs), Model, Optimization, Stunting

Background to the Study

Stunting, or growth failure, is a condition characterised by inadequate height or length in infants (0-11 months) and toddlers (12-59 months) due to prolonged insufficient nutritional intake stemming from inappropriate feeding practices. This condition leads to low motor activity, delayed mental development, and hindered cognitive abilities in affected toddlers (Beal et al., 2018). When nutritional deficiencies occur during pregnancy, and the early postnatal period, the risk of stunting increases significantly and becomes visible after the age of 2 years. Moreover, stunted toddlers experience a short body condition due to chronic malnutrition during the first 1,000 days of life, causing irreversible developmental damage as well as limiting learning and potential (Trihono & Sudomo, 2015).

In Indonesia, various risk factors contribute to the occurrence of stunting, including maternal, toddler, and environmental factors (Oktia & Nirmalasari, 2020). Statistics from 2022 showed that 148.1 million toddlers under the age of 5 were stunted, 45.0 million were excessively thin for their height (wasting), and 37.0 million were heavy for their height and overweight (UNICEF, 2023). According to the 2018 Basic Health Research data, the prevalence of stunting among Indonesian toddlers was 30.8%, with 11.5% severely stunted and 19.3% stunted (Kementerian Kesehatan RI, 2018). Although national stunting prevalence has decreased from 2018 to 2021, further strategies are required to achieve the 2024 target of 14% prevalence (Makripuddin, 2021). In 2019, stunting prevalence decreased from 27.7% to 24.4% in 2021, but underweight increased from 16.3% to 17%, and wasting from 7.4% to 7.1% (Rahman et al., 2023). In 2023, the stunting prevalence in East Nusa Tenggara was 17.4% of 433,702 toddlers whose nutritional status was measured (Ditjen et al., 2023). Meanwhile, a prevalence of 10% or 274 out of 3,462 measured toddlers was reported in Kupang Regency (Diskominfo et al., 2021).

Several efforts have been made by both central and regional governments to control stunting. This includes the establishment of the National Population and Family Planning Board (BKKBN) as the coordinator for accelerating the reduction of stunting based on Presidential Regulation Number 72 of 2021. In response, BKKBN has established Family Planning Villages (FPVs) with a total of 649 in East Nusa Tenggara Province and 36 in Kupang Regency. Accelerating the reduction of stunting can be achieved by optimising the management of FPVs, based on Presidential Instruction Number 3 of 2022, on the optimisation of FPVs implementation in villages and urban areas. The optimisation of FPVs is expected to significantly contribute to reducing the stunting prevalence in Kupang Regency. Specifically, FPVs are territorial units at the hamlet, villages, or equivalent level fulfilling specific criteria, fostering the integration of population, family planning, development, and related sectors (BKKBN, 2022).

FPVs signify a policy reorientation by the government, emphasizing the control of population growth rates as well as the improvement of population quality and family welfare. As the smallest unit in the community, the elevation of family welfare which plays an essential role in supporting successful development. Consequently, the Indonesian government launched the FPVs program in 2016 to enhance high-quality human resources within families (Luh et al., 2019). FPVs are designed to actualize and implement 8 family functions, including religious, socio-cultural, affection, protection, reproductive, social and educational, economic, and environmental. These functions represent welfare and resilience, with family empowerment in the economic sector enhancing the potential for welfare (Luh et al., 2019).

FPVs program is also expected to serve as a replication model for surrounding villages in empowering the community to improve family welfare. When this program is successfully implemented, equitable development could be achieved across rural and remote areas in Indonesia (Luh et al., 2019). The establishment of FPVs aims to enhance the quality of life of the community across villages through the Population, Family Planning, and Family Development (KKBPk) program, as well as develop related sectors to create a high-quality small family. The implementation of this program has significantly affected the social life of the Harjosari II Medan community, North Sumatra, as evident in the improved health quality. Therefore, this research aimed to identify an optimal model for optimising the role of FPVs in stunting control.

Research objectives

This study assesses a model for implementing Family planning villages in stunting control.

Hypotheses

This study tested the following hypotheses:

H₀: The optimisation Model for the family planning village has no effect on stunting prevention.

H₁: The optimisation model for the family planning village has an effect on stunting Prevention.

Materials And Methods

This research used a quantitative method with a cross-sectional design. A total of 224 respondents were selected using a simple random sampling technique from a population of 572 Family Planning Villages (FPVs) Administrators in Kupang Regency, Indonesia. This information was derived from the research conducted by the National Population and Family Planning Agency of Kupang district. A structured questionnaire was used as the instrument for data collection. Questionnaires are effective for gathering quantitative data, which are essential to assess variables such as the role of administrators, understanding of standards and objectives, availability of resources, environmental support, and communication in stunting control. These variables include numerical measurements or ratings, making questionnaires suitable for obtaining the data in a structured method. Furthermore, the inclusion of Family Planning Villages (FPVs) administrators dispersed across different locations requires data collection from a relatively large sample to provide a broader understanding of the topic and enhance the generalizability of results. This tool also enables the collection of standardised responses, ensuring consistency in data, as all respondents answer the same set of questions in the same format. Standardisation is essential for maintaining reliability and comparability across responses.

A total of 17 FPVs in Kupang Regency were randomly selected for investigation, and data were collected using questionnaires that were subjected to validity and reliability tests. The validity test was performed to validate 15 distributed questionnaires for each variable in Kuanheum Village, West Kupang Subdistrict, in March 2023. The results showed two invalid questions that were subsequently excluded from the analysis. The reliability test was conducted on valid questions, and a variable was considered reliable when the answers were consistent. Subsequently, statistical analysis was carried out using Cronbach's Alpha coefficient, achieving a value of 0.70.

The research commenced with a meeting with FPV administrators, including the head of the National Population and Family Planning Board (BKKBN) in Kupang Regency, to gather

information about the role of FPV stunting control. After the meeting, data were collected at the research locations over 1 month, tabulated, and analysed. Univariate analysis was performed to determine the descriptive data distribution, while bivariate analysis explored the significant relationship between independent and dependent variables using linear regression. Subsequently, logistic regression analysis was used to identify determinant factors predicting the dependent variable. The research obtained ethical approval from the Ethics Committee of Health Polytechnic, the Ministry of Health in Kupang, in 2023, with a description of "ethical exemption" Nu.Lb.02.03/1/0173/2023.

Results

Table 1. Distribution of respondents based on FPVs in Kupang Regency in 2023

No.	Family Planning Village Names	f	%
1	Oelbiteno Fatuleu	14	6.3
2	West Fatuleu/Kkb Naitae	16	7.1
3	South Semau/Uituhana	10	4.5
4	Central Amfoang/Fatumonas	17	7.6
5	Uiasa Village	13	5.8
6	East Kupang/Oelatimo	15	6.7
7	Sillu/Fatuleu	15	6.7
8	Oelbiteno/Central Fatuleu	14	6.3
9	Nekbaun	12	5.4
10	Manulai I	15	6.7
11	Tablolong	13	5.8
12	Leloboko/South Amfoang	13	5.8
14	Nunbaun/Amabi Oefeto	15	6.7
15	Mata Air/Central Kupang	14	6.3
16	Oesena/Amarasi	15	6.7
17	Enoraen/East Amarasi	13	5.8
18	Total	224	100.0

Table 1 shows that FPVs in Kupang Regency have 10-17 administrators each to facilitate the implementation process.

Table 2. Characteristics of FPVs administrators based on gender and education

No.	Gender	F	%
1	Male	108	48.2
2	Female	116	51.8
3	Total	224	100.0
Education			
4	Elementary School	25	11.2
5	Junior High School	54	24.1
6	Senior High School	115	51.3
7	University	30	13.4
Total		224	100.0

Table 2 explains that the majority of respondents are male and their education level is mostly senior high school.

Table 3. Distribution of Understanding Standards and Objectives on the Role of FPVs in Stunting Control in Kupang Regency

Variable		The Role of FPVs					Total	P value
		Very Poor	Poor	Fairly Good	Good	Very Good		
Understanding Standards and Objectives	Very Poor	7	2	1	0	0	10	.015
	Poor	3	1	4	0	0	8	
	Fairly Good	3	9	14	15	15	56	
	Good	16	1	12	39	21	89	
	Very Good	25	0	7	23	6	61	
Total		54	13	38	77	42	224	

Table 3 shows that 39 respondents have a good understanding of standards and objectives in line with the role of FPVs in stunting control. The linear regression test results show an influence ($p = .015$) of understanding standards and objectives on the role of FPVs in stunting control in Kupang Regency.

Table 4. Distribution of Resources on the Role of FPVs in Stunting Control in Kupang Regency

Variable		The Role of FPVs					Total	P Value
		Very Poor	Poor	Fairly Good	Good	Very Good		
Resources	Very Poor	5	1	1	0	0	7	.03
	Poor	4	9	8	12	5	38	
	Fairly Good	35	2	16	21	18	92	
	Good	10	1	12	43	11	77	
	Very Good	0	0	1	1	8	10	
Total		54	13	38	77	42	224	

Table 4 shows that 43 respondents with good resources agree with the role of FPVs in stunting control. The linear regression test shows that resources influence the role of FPVs in stunting control in Kupang Regency ($p = .003$).

Table 5. Distribution of Environmental Support on the Role of FPVs in Stunting Control in Kupang Regency

Variable		The Role of FPVs					Total	P value
		Very Poor	Poor	Fairly Good	Good	Very Good		
Environmental Support	Very Poor	1	1	0	0	0	2	.016
	Poor	6	5	4	2	1	18	
	Fairly Good	20	6	19	31	18	94	
	Good	27	1	14	40	16	98	
	Very Good	0	0	1	4	7	12	
Total		54	13	38	77	42	224	

Table 5 shows that 40 respondents with good environmental support use FPVs in stunting control. The linear regression test shows that environmental support influences ($p = .016$) the role of FPVs in stunting control in Kupang Regency.

Table 6. Distribution of Communication on the Role of FPVs in Stunting Control in Kupang Regency

Variable		The Role of FPVs					Total	p value
		Very Poor	Poor	Fairly Good	Good	Very Good		
Communication	Very Poor	2	0	0	0	0	2	.046
	Poor	4	4	3	0	0	11	
	Fairly Good	3	3	10	14	4	34	
	Good	40	6	21	51	17	135	
	Very Good	5	0	4	12	21	42	
Total		54	13	38	77	42	224	

Table 6 shows that 51 respondents can communicate well to enhance the role of FPVs in stunting control. Based on the linear regression test, communication has an influence ($p=.046$) on the role of FPVs in stunting control in Kupang Regency.

Table 7. Distribution of Work Attitude/Culture on the Role of FPVs in Stunting Control in Kupang Regency

Variable		The Role of FPVs					Total	p value
		Very Poor	Poor	Fairly Good	Good	Very Good		
Attitude	Very Poor	0	0	0	0	1	1	.266
	Poor	4	4	1	0	0	9	
	Fairly Good	1	5	12	23	2	43	
	Good	33	3	23	35	26	120	
	Very Good	16	1	2	19	13	51	
Total		54	13	38	77	42	224	

Table 7 shows that 33 respondents have a good attitude/work culture in line with the role of FPVs in stunting control in a very poor category. However, the linear regression test shows no influence ($p= .266$) of work attitude/culture on the role of FPVs in stunting control in Kupang Regency.

Table 8. Distribution of the Role of FPVs on Stunting Control in Kupang Regency

Variable		Stunting Control					Total
		Very Poor	Poor	Fairly Good	Good	Very Good	
The Role of FPVs	Very Poor	0	28	1	19	6	54
	Poor	1	0	5	6	1	13
	Fairly Good	7	0	9	14	8	38
	Good	5	0	34	8	30	77
	Very Good	0	0	21	20	1	42
Total		13	28	70	67	46	224

As shown in Table 8, 34 respondents believe that the role of FPVs is fairly good in stunting control, with the linear regression test indicating a significant influence ($p = .003$).

Table 9. Distribution of Factors Influencing the Role of FPVs in Stunting Control in Kupang Regency

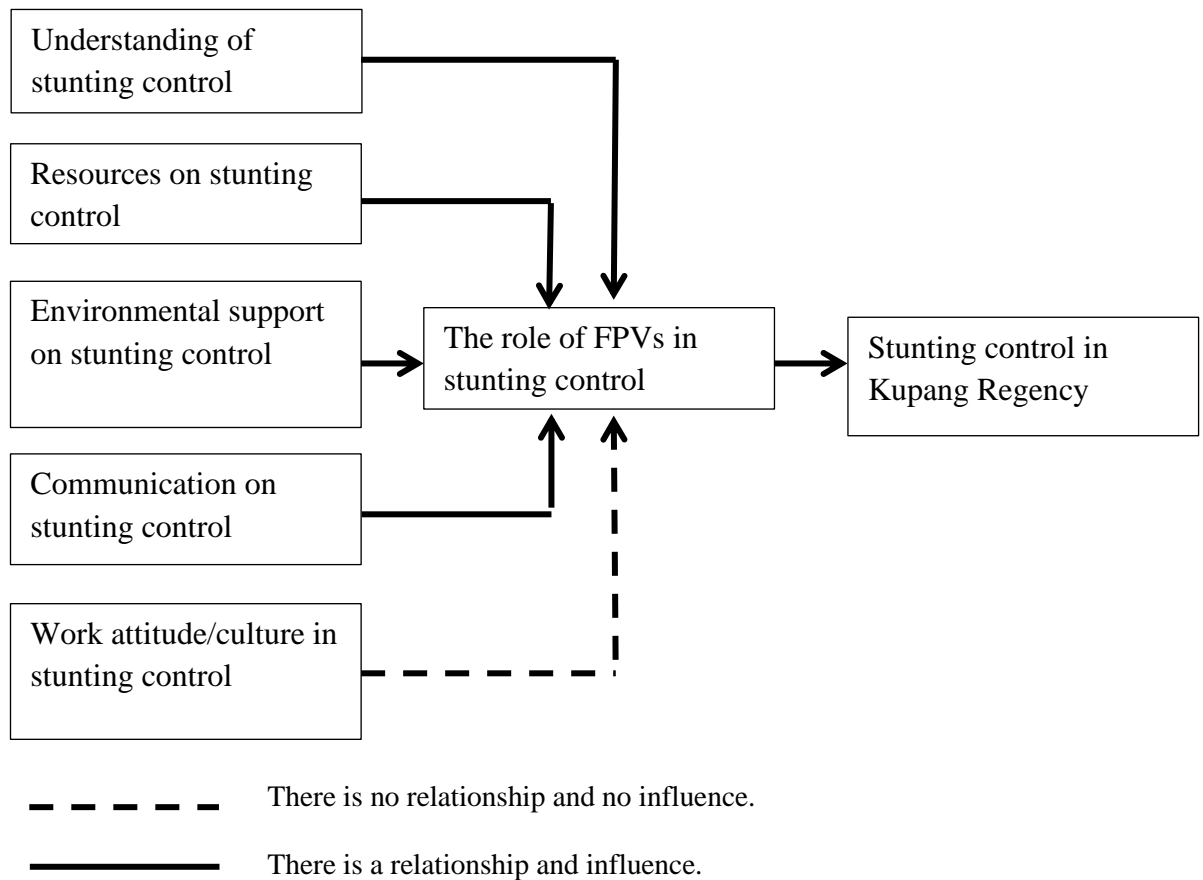
Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	T	
1	(Constant)	15.395	10.387		1.482	.140
	Understanding Standards and Objectives	-.362	.147	-.209	-2.457	.015
	Resources	.403	.136	.220	2.972	.003
	Environmental Support (Socioeconomic & Political)	.475	.195	.213	2.438	.016
	Organizational Communication	.392	.196	.217	2.007	.046
	Work Attitude/Culture	-.232	.208	-.118	-1.114	.266

a. Dependent Variable: The Role of FPVs

Table 9 shows that understanding standards and objectives, resources, environmental support, and organisational communication significantly influenced the role of FPVs in stunting control in Kupang Regency, while work attitude/culture had no substantial effect. Moreover, multiple linear regression statistical test results show a combined influence ($p = .000$) of all variables on the role of FPVs. Based on the ANOVA test, the significance value in the F-test is $0.0001 < 0.05$, indicating the significant effects of all variables. Furthermore, the R^2 of 0.142 showed that the simultaneous contribution of these 5 variables to the role of FPVs in stunting control was 14.20%.

Based on the results presented in Table 9, understanding standards and objectives (policy) significantly influenced the role of FPVs in stunting control ($p = .015 < .05$) with a contribution of $-0.362 \times -0.209 \times 100\% = 7.56\%$. Resources had an influence of ($p = .003 < .05$), contributing $0.403 \times 0.220 \times 100\% = 8.87\%$, while environmental support, such as socio-economic and political, had ($p = .016 < .05$), with a contribution of $0.475 \times 0.213 \times 100\% = 10.12\%$. Furthermore, organisational communication significantly influenced ($p = .046 < 0.05$), contributing $0.392 \times 0.217 \times 100\% = 8.51\%$. The total effective contribution was found to be $7.56\% + 8.87\% + 10.12\% + 8.51\% = 35.06\%$, while other variables influenced the remaining. Environmental support served as a determinant variable that significantly influenced the role of FPVs in stunting control, with a contribution of 10.12%. The mathematical equation model constructed was $Y = 15.395 - 0.362 + 0.403 + 0.475 + 0.392$.

Picture 1. Model Chart



FPVs are strategic innovations of the government to strengthen the Population, Family Planning, and Family Development (KKBPK) program by narrowing the target areas to hamlet or equivalent levels with specific criteria (Nurjannah & Susanti, 2018). Generally, the purpose of establishing FPVs is to improve the life quality of the community across villages or equivalent levels through the KKBPK program and other related sector developments (Nurjannah & Susanti, 2018). Furthermore, FPVs represent a reorientation of government policy that focuses on controlling population growth rates and improving population quality and family welfare. This program is designed to actualise and apply 8 family functions, including religious, socio-cultural, loving, protective, reproductive, social, educational, economic, and environmental, reflecting welfare and resilience.

The results show that the role of FPVs in stunting control is mostly categorised as good (34%) and very good (18%). However, some administrators state that FPVs are very poor in stunting control (24%), indicating variation in performance. This significant variation is attributed to issues encountered in FPVs, including the lack of accurate bottom-up planning in line with specific needs (Fuady, 2020). Consequently, some FPVs cannot effectively fulfil their role due to the lack of suitable planning. The test results also indicate a relationship ($p= 0.003$) between the role of FPVs and stunting control in Kupang Regency. Due to the significance of FPVs in improving the welfare of the community, the effectiveness of this program has a positive influence on the welfare of poor family (Luh et al., 2019).

Various activities can be carried out in FPVs program, such as counseling, family development, and the Prosperous Family Income Improvement Programme (UPPKS) (Nurjannah & Susanti,

2018). This program serves as a miniature implementation of integrated and comprehensive family planning programs at the grassroots level (village/urban village/hamlet). The concept of FPVs integrates family planning with other development initiatives such as education, health, and economics, to empower the community in managing stunting control. An optimal role of FPVs is to effectively control stunting incidents in infants and toddlers in a specific region. The presence of FPVs is also very effective in assisting stunting control, specifically in obtaining information related to the achievement of a quality family to receive prompt and appropriate services.

A good role of FPVs is an essential part of implementing Law Number 52 of 2009 concerning Prosperous Family. Effective implementation of this programme requires training for members, along with essential government support, adequate facilities, infrastructure, and increased community participation. However, the suboptimal implementation of FPVs can be caused by various factors such as the absence of a written health policy, weak communication leading to task accumulation, insufficient operational budget, and incomplete government funding. To overcome these limitations, administrators are recommended to increase voluntary funds for program operations or request assistance from external parties to provide training and support for the community.

Standards and objectives are essential elements in any policy that require adequate understanding regarding stunting control. Generally, administrators always strive to optimally execute FPVs program in accordance with the policy and Law Number 52 of 2009. Regarding stunting control, standards and objectives of FPVs include Standard Operating Procedures (SOPs), which serve as guidelines for implementation, offering a framework for reference throughout the activity. In this research, the majority of administrators have a clear and very clear understanding of the standards and objectives for stunting control in Kupang Regency. The understanding of administrators depends significantly on the clarity of instructions and guidelines. This is because when there are clear guidelines, the program can be implemented effectively. Moreover, FPVs are effective when SOPs are in the form of technical guidebooks, covering the entire program from initiating activities to the final stage of reporting and evaluation (Anggraeni, 2020).

The results show that a good understanding of standards and objectives corresponds to the role of FPVs in controlling stunting in the good and very good categories. However, a very poor understanding is in line with the very poor and poor role of FPVs. The statistical test results show a significant relationship between the understanding of standards and objectives and the role of FPVs in stunting control in Kupang Regency ($p=0.015$). A good understanding by administrators facilitates the implementation and achievement of activity targets. Meanwhile, challenges are encountered in FPVs activity process due to a lack of human resources and funding, as well as low community awareness (Zuhriyah et al., 2017). To overcome these challenges, there is a need to ensure the effectiveness of implementing the role of FPVs in stunting control, where administrators understand all tasks and objectives correctly.

The implementation of FPVs program is facilitated through the inclusion of human resources (administrators) in terms of quantity and competence, physical (facilities), and financial (funds) (Hidayah & Latifah, 2018). Human resources include administrators who have adequate competence and capabilities, with relevant educational backgrounds as well as possess skills and abilities to support and assist the implementation process. Funding resources are obtained through local governments or village funds, while infrastructure includes meeting rooms and other facilities that administrators can use to fulfil their duties (Hidayah & Latifah, 2018). This research shows that the availability of resources in FPVs for stunting control is mostly in the sufficiently available category (41%), while the available category is 34%. Good

resources correspond with the role of FPVs in stunting control in the good and very good categories. The linear regression test results indicate an influence ($p = .000$) of resources on the role of FPVs in stunting control in Kupang Regency. FPVs cadres, as implementers at the grassroots level, are resources that need support through suitable methods, mechanisms, funding, and training to strengthen field actions. The implementation of periodic training and seminars is also essential, enhancing the quality of human resources in FPVs. This is because, without periodic training and seminars, FPVs program cannot be executed, thereby affecting future sustainability. This shows the need for collaboration with local government agencies to provide training and monitoring. Periodic evaluations will also facilitate the improvement of human resources capacity, identifying challenges faced by administrators and cadres during implementation. Furthermore, collective awareness that FPVs are a shared asset is required, showing concerns for issues related to population, family planning, and quality with the improvement of human resources.

The reluctance of the community to become cadres or engage in FPVs can be caused by the lack of available incentives or financial stimuli. Another challenge is the availability of operational facilities such as FPVs secretariat building, as most cadres perform their functions at integrated health posts (POSYANDU), village maternity centres (POLINDES), counselling halls, or other buildings. Moreover, several resources identified in this research include human resources with sufficient numbers, budgets obtained from BKKBN, Regional Budget (APBD), and Village Budget (ADD), as well as facilities such as activity venues and additional training books for cadres.

The success of FPVs shows increased community participation and collaboration with all partners to enhance human quality through stunting control in prosperous family development. In this context, FPVs are designed as a collaborative community empowerment program, alleviating poverty and developing the community as well as various sectors (Yuningsih, 2022). However, the fundamental challenge faced by FPVs is the lack of accurate bottom-up planning, originating from the scarcity of data. To address this challenge, population data is used as the intervention point, covering the management and use of data at the micro level, from identification, collection, verification, and utilization. Meanwhile, the community often does not fully understand that the collected data is used for national, regional, and sectoral development planning.

The implementation of FPVs has improved community welfare through various programs, including Family Development for Toddlers, Adolescents, and the Elderly, the Prosperous Family Income Improvement Program (UPPKS), as well as Youth Information and Counseling Centers. However, challenges still exist in program implementation, such as suboptimal government support, the absence of active program administrators, limited knowledge among cadres, and budget constraints. Therefore, the government is expected to evaluate FPVs program policies to enhance implementation and create a prosperous community.

Communication plays a crucial role in coordinating the implementation of a policy. Furthermore, it is a coordination and integration process of various functions within each part of the policy implementation to achieve consistency, action orientation, and perceptions among implementers. In communication, the formation of forums that serve as coordination platforms for all relevant parties to consistently coordinate and evaluate is essential (Yuningsih, 2022). This is because with good cooperation and coordination as well as a shared vision for welfare and stunting control, FPVs can serve as a positive example in stunting control. Administrators must also maximise communication efforts, as the introduction of FPVs program to the

community is performed through comprehensive socialisation or counselling to provide a clear understanding of the implementation process.

This research shows that communication among administrators is sufficiently clear and consistent using various channels such as official circulars and regular meetings over specific periods with Family Planning Field Officers (PLKB). Activities during these meetings include discussions on socialisation, guidance, programme implementation explanations, and reporting results. Through communication, administrators can understand the guidelines for implementing FPVs and perform their functions. Communication between administrators and the community as the target of FPVs tends to be direct notifications without specific socialisation or counselling. However, the inclusion of transmissions through village socialisation and training may lack clarity, leading to misunderstanding within the community. Since the consistency of the FPV programme is based on technical instructions, efforts should be made to improve information delivery methods. Good communication enhances programme achievements and collaboration with other sectors, including the personal capabilities of cadres in understanding, conveying, and implementing activities in FPVs (Istiadi, 2017).

Achieving perfect communication is challenging, as successful communication depends on the delivery process, clarity, and consistency of information. However, the information management system does not guarantee that the data, advice, and commands generated are truly understood as intended by the sender. This is attributed to the influence of communication factors on the acceptance of policies by target groups, limiting the achievement of effective national policy implementation. Therefore, disseminating policy content through good communication will influence implementation effectiveness. Administrators should understand communication carefully and accurately. This clarity requires the acceptance of public policies transmitted to administrators and target groups, including direct or indirect stakeholders, ensuring an understanding of intent and goals. The implementation of instructions should also be clear to facilitate administrators' effective achievement of policy.

Work culture is a set of behaviour patterns inherent in every individual. The development of a positive culture is an attempt to familiarise oneself with specific behaviour patterns, creating new and better work behaviour. A strong culture shows high agreement on organisational goals among members, as, leadership, punctuality, and technology significantly influence performance (Al Ihsan et al., 2021). In this research, support for work attitude/culture in FPVs implementation is mostly 53.6%. This shows that work attitude/culture is considered good and very good, while the role of FPVs in stunting control is categorised as very poor.

The statistical test results indicate no relationship ($p=0.469$) between work attitude/culture and the role of FPVs in stunting control in Kupang Regency. Therefore, the community should actively participate in FPVs implementation by demonstrating a positive work culture to influence employee performance (Kusumawati et al., 2022). The formation of work culture in an institution includes a continuous change process resulting in 4 stages, namely unprecedented, transformation, authority, and reconciliation (Rositasari & Dudija, 2021). This continuous change in work culture has been proven to influence employee work effectiveness positively (Kurniasari et al., 2021). Additionally, the work environment, coordination, and culture simultaneously significantly positively influence employee work effectiveness.

The lack of a significant relationship is influenced by various factors, particularly community inclusion and participation in FPVs implementation. To address this challenge, support is required from local government to increase community participation (Wanta et al., 2022). When support is lacking, community participation will decrease, thereby influencing work culture. Generally, work discipline significantly influences performance (Vipraprastha et al., 2020), significantly influencing employee productivity (Irwan & Osman, 2021).

Administrators play a crucial role in the implementation of FPVs to enhance stunting control efforts in villages organization. Despite the challenges faced during FPVs implementation, the internal environment can become more conducive with various efforts. As part of supporting empowerment, an open and trusting environment among members is required to create a positive work culture. This is because a good attitude can be achieved when administrators possess a clear and adequate understanding of the content, purpose, and goals of FPVs implementation to improve life quality through family and community participation. Furthermore, positive attitude and evaluation promote the growth of awareness and commitment among the administrators to fulfil their respective functions and duties in providing family planning program services to the community.

FPVs are territorial units at the hamlet, village, and equivalent level with specific criteria, where there is an integration of the KKBPK programme and related sectors implemented comprehensively (BKKBN, 2022). Specifically, FPVs represent a reorientation of government policy, focusing on reducing population growth rates and enhancing population quality as well as family welfare. As the smallest unit in the community, the improvement of family welfare requires attention, contributing significantly to the success of development and the shaping of high-quality human resources., Consequently, FPVs programme was initiated by the Indonesian government in 2016 (Luh et al., 2019).

The design of FPVs is focused on actualising and applying the 8 family functions, which reflect welfare and resilience. These functions include religious, socio-cultural, loving, protective, reproductive, social and educational, economic, and environmental. In the economic sector, family empowerment is one of the methods of enhancing the potential for welfare (Heryendi, 2013). Therefore, FPVs programme is designed to serve as a replication model for other surrounding villages in empowering the community to improve family welfare. When the implementation is achieved, equitable development will be accomplished across Indonesia, reaching rural and remote areas (Luh et al., 2019).

Stunting control has been identified as an effort to improve the welfare and life quality of the rural community through enhanced environmental sanitation. This effort is crucial to reducing the incidence of infectious diseases caused by poor environmental sanitation. According to previous research, poor sanitation is closely related to the incidence of stunting (Wulandari et al., 2019).

The research shows that stunting control in FPVs in Kupang Regency is predominantly categorised as fairly good (31%), indicating the suboptimal efforts of administrators. This phenomenon is attributed to the lack of knowledge, a clear understanding of stunting control, and various supporting factors, specifically human resources, equipment, and funds.

The establishment of FPVs aims to enhance the life quality of the community at the village or equivalent level through the KKBPK programme and develop related sectors to realize a high-quality small family. The implementation of FPVs programme has caused significant changes in the social life of the community in Harjosari II, Medan, North Sumatra, as shown by improved health quality.

Generally, stunting control requires a strong commitment from various parties. This research recommends the importance of commitment and synergy among the government, administrators, the community, and stakeholders to succeed in family education in FPVs (Remiswal et al., 2021). Control efforts by administrators include crucial aspects such as communication engaging the socialization and briefing about FPVs, the availability of human resources in a sufficient number, facilities in the form of activity venues and additional training books for cadres, as well as procedural guidelines for FPVs implementation. However, the lack of understanding and knowledge in FPVs implementation can hinder the programme.

FPVs implementation in the family can be successful when applying Standard Operating Procedures and providing training for members. However, insufficient community participation can inhibit the implementation process, while supporting factors include substantial government support and adequate facilities and infrastructure. Stunting control efforts can be carried out through maternal and toddler health programs such as antenatal care, prenatal classes, iron and calcium supplementation, supplementary feeding for pregnant women, training in handwashing practices with soap, support for clean water infrastructure with piping, assistance in owning and maintaining toilets, along with community-based sanitation training (Nasrul & Nasrul, 2018). Furthermore, interventions in stunting prevention and control include nutritional education, social protection such as unconditional cash transfers, and maternal nutritional literacy (Azhari & Mahwati, 2022). The limitations of this research is that the use of cross-sectional design limited the ability to establish causality between variables.

Conclusions

In conclusion, this research showed that optimising the role of FPVs in stunting control in Kupang Regency could be implemented by considering important variables with positive contributions. These variables included understanding standards and objectives, resources, social, and environmental support, and communication with various parties in FPVs. Based on the result of this study, the following recommendations are made:

1. Conducting longitudinal studies to assess the long-term impact of Family Planning Villages (FPVs) in stunting control is needed.
2. Exploring the role of community engagement and participation in FPVs to enhance stunting prevention efforts is recommended.
3. Investigating the effectiveness of specific interventions within FPVs, such as nutritional education programmes or maternal health initiatives, in reducing stunting rates is suggested.
4. Comparing the outcomes of FPVs implementation in different regions to identify best practices and potential areas for improvement will be helpful.
5. Examining the sustainability and scalability of the FPVs model in addressing stunting and improving community welfare in diverse settings is recommended.

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Conflict of Interest

The authors declare that they have no conflicts of interest.

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