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The Role Of Pharmacists In Supporting The Stunting Program In Tulungagung Regency

Kordio Alam Qoruri[1*], Adi Wibisono[2], Janik Kurniawati[3], Fidi Setyawan[4]
[1,2,3,4]Faculty of Pharmacy, Universitas STRADA Indonesia
[*]**Corresponding author**: diokor13@gmail.com

ABSTRACT

Stunting remains a health problem that threatens the quality of life for future generations. Pharmacists have the potential to play a strategic role in supporting stunting prevention programs. This study aims to explain the role of pharmacists in supporting stunting prevention programs in Tulungagung. The research method used was descriptive observational with qualitative and quantitative approaches through a cross-sectional design. Data collection was conducted using a questionnaire using a total sampling technique from pharmacists and stakeholders related to the idiom 7 pharmacies and community health centers. The results showed that stakeholders had high motivation and positive perceptions of the teaching program. Statistical analysis proved opinions about program (p=0.003) and pharmacist motivation (p=0.007) had a significant influence on the success of implementation. It was concluded that pharmacists have an important role in education, supplementation, and early detection, but optimizing this role requires strengthening systems, training, and policies that support cross-sector collaboration.

KEYWORD : Stunting, Role of Pharmacists, Health Programs, Health Workers

INTRODUCTION

Stunting or short life span is a growth failure in babies (aged 0-11 months) and toddlers (aged 12-59 months) which is caused by chronic nutritional deficiencies, especially in the first 1000 days of life, resulting in the child being too short for his age (Arnita et al., 2020; Wati & Musnadi, n.d.).

The problem of stunting remains a major concern in global public health. Studies and planning for under-fives worldwide have focused on addressing the problem of stunting. In 2019, stunting also decreased to 27.7%. Due to the lack of data collection, the stunting prevalence rate in Indonesia in 2020 is estimated to have decreased to 26.92%. This is a predicted decrease of 0.75% compared to 2019 (27.67%). In 2021, the stunting prevalence rate was 24.4% (Sofiani Ikasari et al., 2024). In Indonesia, the prevalence of stunting remains high and has fluctuated in recent years. However, the current prevalence rate of stunting is still far from the target of 14% that must be achieved in 2024, or as many as 5.33 million toddlers who are still experiencing stunting.

Based on the explanation of the facts above, it appears that the problem of stunting has become a fairly big problem in the country of Indonesia, especially in the world of health.

However, at this time pharmacists have not officially been included in the stunting management program.

In the di community health center program, the bernutrition action activity is carried out i.e. the Stunting consultation activity which is located in Tulungagung Regency. The nutritional action program in SMPN 2 Mixland includes: Gymnastics together with di ischool yard, Provision of healthy food and balanced nutrition. In addition, the Stunting Program carried out by the Community Health Center, Tulungagung includes: Following the Simultaneous Stunting Prevention Intervention Movement, Facilitating referrals if necessary, Providing child care and development assistance, Conducting regular pregnancy monitoring and examinations, Conducting Postpartum IEC and KB. The researcher chose this research location because in the Campurdarat District area there is still a problem, namely stunting, even though there are programs provided but it has not been resolved so the researcher wants to conduct research on the role of pharmacists in preventing stunting in the area.

This problem is the background behind the researcher for conducting this research. This research aims to find out the role of pharmacists in the Stunting Program in Tulungagung Regency.

METHODS

This study employed a mixed-methods design, combining quantitative and qualitative approaches through a cross-sectional survey. The study was conducted in March 2025 at seven pharmacies and community health centers Tulungagung Regency. The study population consisted of all pharmacists and healthcare workers at the designated locations. A purposive sampling technique was used, resulting in a sample size of 20 respondents, including pharmacists from the pharmacies and related healthcare workers from the Puskesmas.

Data were collected using two main instruments: a structured questionnaire and semi-structured interviews. The questionnaire, designed with Likert-type scales and multiple-choice questions, collected quantitative data on respondents' demographics, perceptions, knowledge, and motivation regarding the Stunting program. Open-ended questions in the questionnaire and in-depth interviews were used to collect qualitative data, exploring the challenges and benefits of program implementation. The validity and reliability of the questionnaire were confirmed through statistical tests, with all items demonstrating valid R-values > R-table values and acceptable to good reliability scores.

Quantitative data were analyzed using descriptive statistics and multiple linear regression analysis using SPSS software. This included testing classical assumptions (normality, multicollinearity) and conducting t-tests, F-tests, and beta dominance tests to determine the influence of independent variables.This included testing classical assumptions (normality, multicollinearity) and conducting t-tests, F-tests, and beta tests to determine the influence of independent variables (program implementation, education, knowledge, motivation) on dependent variables (perception and knowledge). Qualitative data from interviews and open-ended questions were analyzed thematically to identify key patterns, challenges, and recommendations, which were then triangulated with quantitative findings. Ethical clearance was obtained, and all participants provided informed consent.

RESULTS AND DISCUSSION

Characteristics Of Respondents

Respondents who filled out the questionnaire were 7 pharmacists and 13 other health workers who work in pharmacies and community health centers in Tulungagung.

Table 1. Characteristics of Respondents, Pharmacists and Health Workers in Tulungagung Regency.

Respondent characteristics	Frekuency	Presentation %
Gender :		
Male	2	10%
Female	18	99%
last education :		
3-year diploma	8	40%
Bachelor degree	12	60%
Employment Status :		
Pharmacist	7	67%
Pharmacy Technician	4	42%
Nurse	4	36,5%
Nutritionist	1	9%
Midwife	4	36,5%

The majority of respondents in this study were female (90%), as listed in Table 1. In the category of highest education, the majority of respondents had a bachelor's degree (60%). In terms of occupation, respondents were health workers at community health centers (65%), while 35% worked as pharmacists. Data on the characteristics of respondents in this study were not tested for their influence on the variables.

Data Analysis

Table 2. T-Test Analysis on the Implementation of the Stunting Program in Tulungagung Regency

Variabel	T-Value	Sig.	Beta	Keterangan
Program Opinions	3.503	0.003	0.322	Signifikan
Pharmacist Motivation	3.149	0.007	0.282	Signifikan
Healthcare Worker Education	2.338	0.035	0.255	Signifikan

Healthcare Worker Perspective	2.225	0.041	0.203	Signifikan
Stunting Awareness	3.334	0.054	0.103	Tidak Signifikan

Regression analysis of t-test shows that the opinion of the program stunting in pharmacies, education of health workers, perspective of health workers, and motivation of pharmacists have a significant influence on the implementation of the program (sig. < 0.05), with the value of it-statistic greater than the table (2.093). However, knowledge of stunting is not significant (sig. 0.054 > 0.05), indicating that this factor has not become the main driver in the implementation of the program.

Qualitative analysis identified significant practical challenges and barriers that pharmacists face in implementing or supporting teaching programs in the pharmacy environment. Findings indicated that these barriers are multifaceted, encompassing internal (resources), external (patients and systems), and economic aspects. The fundamental barrier most consistently expressed by respondents was the limited human resources in the pharmacy. This manifested in two main forms: quantity and quality.

DISCUSSION

Analysis of Pharmacists' and Healthcare Workers' Knowledge Regarding the Implementation of Stunting in Pharmacies

Based on the research results, all respondents (100%) agreed with the importance of stunting education and reported active involvement in various educational activities. Statistical analysis (t-test) revealed that perceptions of the pharmacy program, the level of program implementation, and the perspectives of health workers had a statistically significant influence on the effectiveness of stunting education ($p < 0.05$). However, the most striking and crucial finding was that the variables 'Stunting Knowledge' and 'Motivation' did not show a significant influence on the effectiveness of said education ($p > 0,05$) (Fitriani et al., 2023).

The finding of the insignificant effect of teaching knowledge (with an p value of 0.054) on the population of highly educated health workers cannot be interpreted as a lack of knowledge. Instead, this result provides strong evidence of the existence of a "knowing-doing gap" phenomenon – that is, a gap between what is known theoretically and what can be implemented or done in actual practice in pharmacies (Fitriani et al., 2023). This confirms that technical knowledge alone is not sufficient to guarantee the success of teaching education at the community pharmacy service level.

This study revealed that the success of the implementation of the teaching education program in pharmacies does not depend primarily on the level of technical knowledge of pharmacists/health workers, but rather on factors such as positive perceptions of the program, implementation skills, good communication strategies, closeness to patients/communities, and the availability of adequate educational materials. The existence of knowing-doing gap demands a shift in the focus of interventions from merely increasing theoretical knowledge

towards developing practical communication skills, providing effective and contextual educational tools, and a proactive approach to addressing barriers at the community level. This strategic potential can be realized if supported by adequate policies, particularly those related to formalizing collaboration between healthcare facilities, providing innovative financing schemes, and developing practical skills for healthcare workers.Fitriani et al., 2023; Laila & Ramadhani, 2024).

Based on research findings, the role of pharmacists in supporting the pharmacy's stunting management program an be analyzed in depth through the Nine Star Pharmacist framework: 1. Pharmacists as Care-Givers (Service Providers) The role of pharmacists as service providers is realized through the provision of nutritional supplements and Essential medicines for the prevention of stunting. 2. Pharmacist as Communicator and Teacher (Communicator and Educator) This is the role that stands out most in the research findings. Pharmacists actively provide education through direct counseling, providing physical materials such as brochures, and utilizing social media. Research data shows that 100% of respondents agree with the importance of education. 3. Pharmacist as Decision-Maker (Decision Maker) In the context of medicine, the pharmacist plays the role of clinical decision-maker when recommending supplements or vitamins that best suit the patient's condition. 4. Pharmacists as Leaders (Leaders) The role of pharmacists as leaders in community health is the greatest potential that has not yet been realized. Quantitative findings showed that pharmacist motivation had a significant effect on the implementation of the program (p=0.007), indicating a strong desire to contribute more.

Identifying the Role of Pharmacists in Implementing the Stunting Program

Based on the results of interviews and qualitative data analysis at the research location, the role of pharmacists in the obesity reduction program can be identified into three main pillars: 1. Provision of Nutritional Supplements: Directly distributing essential supplements such as vitamin A and iron (Fe) tablets to the program targets. 2. Health Education: Providing counseling to pregnant women and the wider community regarding the importance of the First 1000 Days of Life (HPK), early detection monitorin, and community-based health promotion. 3. Cross-Sector Collaboration: Working actively with puskesmas posyandu in program implementation.

To analyze this role more deeply and systematically, the WHO/FIP "Nine Star Pharmacist" framework was used as an ideal standard to diagnose the pharmacist's role and identify systemic supports or barriers to each dimension of the role. The findings regarding the importance of the pharmacist's role are supported by previous research. Pratiwi and Nasution (2023) stated that pharmacist involvement in community health programs can increase the effectiveness of nutrition intervention distribution and expand educational coverage, provided it is supported by adequate systems and training. Furthermore, the researcher's assumption that the role of pharmacists is strategic in reaching community groups that are not touched by community health center services (especially through informal education and community health promotion), is supported by the conclusion of Syahputra et al. (2023). Their research shows that strengthening the role of pharmacists in

the primary care system can fill gaps in promotive and preventive services, especially in areas with limited community health center facilities (Pratiwi & Nasution, 2023; Syahputra et al., 2023). Despite its great potential, the implementation of the pharmacist's role in the teaching program faces significant obstacles. The main obstacles identified include the lack of trained human resources and limited facilities at the pharmacy level.

The success of the drugstore outreach program depends on integrated measures to address existing constraints. Procurement of basic diagnostic tools through a special budget allocation from the health department is a top priority, followed by ongoing technical training that includes symptom screening and medication management for the drugstore outreach program. Harmonization of digital reporting systems between pharmacies and community health centers is also needed to ensure data consistency, while community-based anti-stigma campaigns can involve pharmacists as agents of change. With the support of inclusive policies and collaboration between institutions, pharmacies are not only able to overcome structural challenges, but also maximize their potential as strategic partners in accelerating the istunting program in Indonesia.

CONCLUSION

The research results yield a crucial conclusion: stakeholders had high motivation and positive perceptions of the teaching program. Statistical analysis showed that opinions about the program (p=0.003) and pharmacist motivation (p=0.007) significantly influenced implementation success. Pharmacists and healthcare workers at the study sites have very high potential and readiness to support the stunting program. This is evidenced by the competence of their human resources (100% are highly educated) and high professional motivation.

However, this optimal potential is significantly hampered by systemic constraints beyond their control, such as patient economic factors (high supplement prices) and a lack of formal integrity between pharmacies and the primary healthcare system. The success of program implementation is ultimately determined not by knowledge, but by psychological factors and system support.

REFERENCE

Agung, I. M., & Zahra, F. (2016). Metode penelitian kuantitatif. Pandiva Buku.

Arnita, S., Rahmadhani, D. Y., & Sari, M. T. (2020). Hubungan Pengetahuan dan Sikap Ibu dengan Upaya Pencegahan Stunting pada Balita di Wilayah Kerja Puskesmas Simpang Kawat Kota Jambi. Jurnal Akademika Baiturrahim Jambi, 9(1), 7.

Arnita, S., Rahmadhani, D. Y., & Sari, M. T. (2020). Hubungan pengetahuan dan sikap ibu dengan upaya pencegahan stunting pada balita di Wilayah Kerja Puskesmas Simpang Kawat Kota Jambi. Jurnal Akademika Baiturrahim Jambi, 9(1), 7.

Atica Ramadhani Putri. (2020). aspek pola asuh, pola makan, dan pendapatan keluarga pada kejadian stunting. Vol. 6No. 1.

Awaluddin, N., & Awaluddin, A. (2023). Edukasi Siswa melalui Pengenalan Profesi Apoteker pada Program Kelas Inspirasi di SDN Parinring Makassar. Amalee: Indonesian Journal of Community Research and Engagement, 4(1), 147–156. https://doi.org/10.37680/amalee.v4i1.2502

Awaluddin, N., & Awaluddin, A. (2023). Edukasi siswa melalui pengenalan profesi apoteker pada program kelas inspirasi di SDN Parinring Makassar. Amalee: Indonesian Journal of Community Research and Engagement, 4(1), 147–156.

Badan Pusat Statistik Kabupaten Tulungagung. (2024). Kecamatan Campurdarat dalam angka 2024. BPS Kabupaten Tulungagung.Bulan Januari.

Candra, A. (2020). Upaya pencegahan stunting. Jurnal Abdimas Kesehatan (JAK), 2(2), 145-150.

Guilford, J. P. (1956). The structure of intellect. Psychological Bulletin, 53(4), 267–293.

Hapsari, A., Fadhilah, Y., & Wardani, H. E. (2022). Hubungan kunjungan antenatal care dan berat badan lahir rendah terhadap kejadian stunting di Kota Batu. Jurnal Ilmu Kesehatan, 5(2), 108–114.

Hapsari1, A., Fadhilah, Y., & Wardani, H. E. (2022). hubungan kunjungan antenatal care dan berat badan lahir rendah terhadap kejadian stunting di kota batu. Jurnal IlmuKesehatan BATU. Jurnal IlmuKesehatan, 5(2), 108–114.

Hardani, Andriani, H., Ustiawaty, J., Utami, E. F., Istiqomah, R. R., Fardani, R. A., Sukmana, D. J., & Auliya, N. H. (2020). Metode penelitian kualitatif & kuantitatif. CV. Pustaka Ilmu Group.

Jakri, Y., Ningsih, O. S., & Agus, A. (2022). Hubungan kualitas sanitasi dan penyakit diare terhadap kejadian stunting pada anak umur 2 - 5 tahun di Puskesmas Bea Muring Kabupaten Manggarai Timur. Malahayati Nursing Journal, 4(8), 2108–2118.

Jakri, Y., Ningsih, O. S., & Agus, A. (2022). Hubungan Kualitas Sanitasi dan Penyakit Diare terhadap Kejadian Stunting pada Anak Umur 2 - 5 Tahun di Puskesmas Bea Muring Kabupaten Manggarai Timur. Malahayati Nursing Journal, 4(8), 2108–2118.Jurnal Biology Education.

Kementerian Kesehatan Republik Indonesia. (2010). Keputusan Menteri Kesehatan Republik Indonesia Nomor 1995/MENKES/SK/XII/2010 tentang Standar Antropometri Penilaian Status Gizi Anak.

Kementerian Kesehatan Republik Indonesia. (2018). Situasi balita pendek (stunting) di Indonesia. Pusat Data dan Informasi Kementerian Kesehatan RI. Kesehatan Hesti Wira Sakti, 8.

Ketut, I., Bayu, M., Murni, N. S., Harokan, A., Suryani, L., Masyarakat, K., Bina, S., & Palembang, H. (n.d.). Evaluasi Peran Puskesmas dalam Upaya Konvergensi untuk Pencegahan Stunting di Puskesmas Tugu Mulyo Tahun 2024. In Health Care : r Kesehatan (Vol. 13, Issue 2).

Kountur, R. (2009). Metode penelitian untuk penulisan skripsi dan tesis. Penerbit PPM.Mahasiswa Fakultas Ilmu Sosial & Ilmu Politik.

Mashar, R., Ota, E., Giyaningtyas, T. W., & Mizutani, T. (2021). Comprehensive tools to prevent stunting risks (CTP Stunting Risks) in South Kalimantan. Proceedings of the 2nd International Conference on Public Health, 981-989.

Musrifah, La, S., & Titaley, J. (2021). Faktor-faktor yang menentukan terjadinya keterlambatan dan intensitas keterlambatan pada proyek konstruksi asrama MAN 1 Tulehu Maluku Tengah. Simetrik: Jurnal Ilmiah Rekayasa, Rancang Bangun dan Permodelan, 9(1), 30-36.