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3. Maria Goreti Pantaleon
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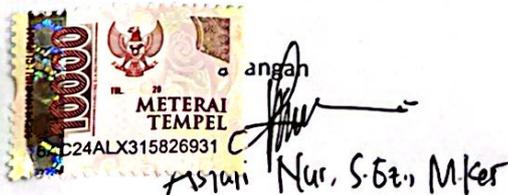
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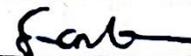
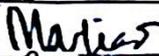
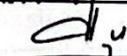
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SURAT PERNYATAAN ETIKA PUBLIKASI

Judul Artikel:

The Impact of Cadre Training on the CGM, CDM and IYCF Related Knowledge and Skills in The Context of Reducing Stunting in Kupang City

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27 Agustus 2024

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Manuskrip yang saya kirimkan yaitu berisi tentang intervensi/pelatihan yang diberikan pada kader posyandu meliputi pemberian modul, edukasi gizi tentang stunting, pemantauan pertumbuhan, pemantauan perkembangan dan PMBA pada kelompok intervensi dan pemberian edukasi gizi dan modul saja pada kelompok control tanpa pelatihan. Kami sangat yakin bahwa manuskrip kami sesuai dengan cakupan keilmuan atau scope dan kajian pada jurnal AcTion: Aceh Nutrition Journal, yaitu ilmu gizi baik dalam bidang kajian "**Gizi Kesehatan Masyarakat**". Semua keterangan terkait Judul Manuskrip, Runding Titles, Penulis dan Afiliasi, serta Korespondensi terlampir.

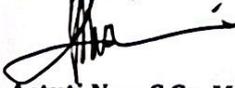
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Demikian kami sampaikan, atas perhatian dan kerjasama yang baik diucapkan terima kasih.

Hormat Saya,



Astuti Nur, S.Gz.,M.Kes

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Lampiran:

Judul Manuskrip: *The Impact of Cadre Training on the CGM, CDM and IYCF Related Knowledge and Skills in the Context of Reducing Stunting in Kupang City*

Running Titles: *The Impact of Cadre Training on the CGM, CDM and IYCF Related Knowledge and Skills in Kupang City*

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**"PENGARUH INTERVENSI GIZI TERPADU TERHADAP OUTCOME IBU DAN ANAK SEBAGAI UPAYA
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The Impact of Cadre Training on the CGM, CDM and IYCF Related Knowledge and Skills in the Context of Reducing Stunting in Kupang City
Dampak Pelatihan Kader Terkait CGM, CDM dan IYCF Terhadap Pengetahuan dan Keterampilan Dalam Rangka Penurunan Stunting di Kota Kupang

Astuti Nur1*, Santa Luciana Diaz Vera da Costa2, Maria Goreti Pantaleon3, Maria Helena Dua Nita4, Anak Agung Ayu Mirah Adi4

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Abstrak Kader sangat berperan penting dalam pelaksanaan posyandu sebagai salah satu kegiatan pemantauan tumbuh kembang balita dalam upaya pencegahan stunting. Tujuan: Mengetahui pengaruh pelatihan terhadap pengetahuan dan ketrampilan kader tentang pemantauan tumbuh kembang dan pemberian makan anak dalam upaya pencegahan stunting di Kota Kupang. Metode: Penelitian ini menggunakan quasi-experiment dengan rancangan pre test-post test control group desain. Peserta adalah kader posyandu Puskesmas Oesapa Sebanyak 30 kelompok intervensi diberikan modul serta pelatihan tentang Children Growth Monitoring (CGM) dan Children Development Monitoring (CDM) dan Infant Young Children Feeding (IYCF). Sedangkan 30 kelompok kontrol diberikan edukasi gizi dan modul saja. Pengetahuan diukur menggunakan koisioner. Ketrampilan diukur menggunakan formulir ceklis. Setelah pelatihan, kader melakukan praktek langsung di Posyandu. Hasil: Terjadi peningkatan pengetahuan kader mengenai stunting, CGM, CDM dan IYCF baik pada kelompok intervensi maupun kelompok kontrol. Hal ini ditunjukkan dengan selisih pengetahuan tentang stunting 17,33±9,07 (intervensi) dan 10,00±7,42 (kontrol), CGM 21,33 ± 12,24 (intervensi) dan 10,33 ± 16,07 (kontrol), CDM 15,33 ±18,7 (intervensi) dan 6,00 ±12,20 (kontrol) dan IYCF 16,00±17,14 (intervensi) dan 6,66 ± 10,93 (kontrol) dengan nilai (p<0,05). Pelatihan juga meningkatkan ketrampilan kader secara signifikan dalam pengukuran antropometri setelah post test 1 pada kelompok kasus dan kontrol (p=0,00). Namun pada post test 2 tidak terjadi peningkatan ketrampilan secara signifikan dengan nilai (p=0,68). Kesimpulan: Pelatihan efektif meningkatkan pengetahuan dan ketrampilan kader tentang stunting dibandingkan yang hanya diberikan edukasi gizi tanpa pelatihan. Kata Kunci: Pelatihan, kader, CGM, CDM, IYCF

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Introduction

Stunting is a nutritional problem that remains a major concern in Indonesia. East Nusa Tenggara saw a decrease in stunting from 42.6% in 2018 (Kemenkes, 2018) to 37.9% in 2023, with NTT ranking second in Indonesia after Central Papua at 37.9%(Kemenkes, 2023). Kupang City maintains its 8th-highest ranking among 22 districts in NTT, with an increase of 18.7% (EPPGBM, 2024). Therefore, achieving the national target of reducing the number of stunts requires significant effort and dedication (Bappenas, 2020).

Socio-economic factors generally have a close relationship with stunting in children. In 2021, the percentage of the poor population in NTT ranked third, following Papua Province and West Papua (Direktorat Jendral Perbendaharaan, 2021). In 2022, the average school age was 7.70 years, which is equivalent to a high school graduation, and the rate of early marriages was high (BPS NTT, 2022). The majority of the people in this NTT work in the informal sector, like farmers, farm workers, and fishermen. The low economic level of the family leads to limited food choices, school supplies, and health care, even as most mothers transition into housewives. If not prevented, stunting children who grow up in low socio-economic families will give birth to intergenerational stunts. A mother who stunts and grows up in a poor economic environment will have a lack of knowledge, awareness, and attention to the growth of her child. This condition affects patterns of nursing, seeking health care, and stimulating the growth of the young.

In order for the young to reach their full potential for growth and development, intervention is required. According to a number of studies, accompaniment is the most effective strategy to prevent stunting in youngsters. Furthermore, integrated interventions such as education, supplementary feeding, and growth stimulation of the young are preferred to single interventions (Elisaria et al., 2021)(Siswati et al., 2022). In presidential regulation number 72 of 2021, it is mentioned that the national action plan to encourage the reduction of stunting is by providing support to families at stunting risk to improve access to information and services (Peraturan Presiden, 2021)

Intervention requires cadres who know the conditions on the ground and are close to the public. Cadres play a crucial role in implementing Posyandu, which involves monitoring the nutrition status in newspapers. The role of cadres is critical in bridging health forces with the community, as it enables people to obtain information about health, disease prevention, nutrition issues, child growth monitoring (CGM), child development monitoring (CDM), and infant and young children feeding (IYCF) to prevent stunting.

Technically, cadres often make mistakes such as determining age, using inappropriate anthropometric measurement methods, failing to perform KMS plotting, and not understanding how to report news developments. Given the significance of their role, cadres must possess strong knowledge and skills to effectively serve the community (Noya et al., 2021)

Several studies have shown that supplementation can help increase dietary intake and identify infants who are malnourished (Effendy et al., 2020), make it easier for people to get health services (Elisaria et al., 2021), make breastfeeding more successful, lower the need for early complementary feeding administration (Titaley et al., 2022), and boost child growth (Paramashanti & Sulistyawati, 2018).

The study aims to identify the impact of training on the knowledge and skills of health cadres in Child Growth Monitoring (CGM), Child Development Monitoring (CDM), and Early Child Feeding (IYCF) to improve the provision of health services in stunting prevention efforts in Kupang City

A research permit was obtained from the Health Research Ethics Commission (KEPK) of the Kupang Ministry of Health Polytechnic (No. LB.02.03/1/0021/2024)

Method

The study uses quasi-experimental designs with pre-test-post-test control group designs. The research was conducted from May to July 2024. The research was conducted at the Nutrition Status Assessment Laboratory and Nutritional Food Maintenance Laboratory in Poltekkes Kemenkes Kupang, East Nusa Tenggara

Participants are posyandu cadres of Puskesmas Oesapa who are determined purposefully by sampling using the following criteria: Health cadres in the work area are capable of reading and writing, not the main cadres, and are able to follow the training fully. The result obtained was 60 frames selected as participants from 4 qualifications (Oesapa, Oesapa Barat, Lasiana, and Kelapa Lima). A total of 30 intervention group cadres were given modules as well as training on Children Growth Monitoring (CGM), Children Development Monitoring (CDM), and Infant Young Children Feeding (IYCF)

The training is given by a facilitator who holds a certificate as a Facilitator of Stimulation Detection Early Intervention Growth Breeding (SDIDTK). The material is delivered through various methods, such as lectures, questions and answers, simulations, and practices. Theory is taught to large groups or classes, while simulations are taught in small groups consisting of five people. Knowledge is measured at the beginning and after training using questionnaires. The answer is given a score of 1 if true and 0 if wrong, then weighed, resulting in a 100% score that is entirely correct. The ability to perform anthropometric measurements is measured using precise forms. After the training, the cadres practiced anthropometric measurement methods at Posyandu. Supervisors in the field are health center nutritionists and researchers. The data is analyzed with a t-test to determine the differences in framework knowledge and skills before and after training

Results and Discussion

Most of the cadres are over 40 years old, graduated from high school, worked as housewives, served as cadres for less than five years, and have never been trained. All such characteristics show no difference between the intervention group and the control group. Specific details are provided in Table 1.

Table 1. Respondent Characteristics Based on Treatment Groups

Variables	Intervention (n=30)	Control (n=30)	p-Value ¹	
Age ≤ 30 years	30-40 years	>40 years	2 (6,7%) 4 (13,3%) 24 (80%) 2 (6,7%) 9 (30%) 19(63,3%) 0,28	
Education	Elementary school	Junior high school	Senior high school	1 (3,3%) 9 (30%) 17(56,7%) 3 (10%) 2 (6,7%) 4 (13,3%) 19(63,3%) 5 (16,7%) 0,41
College	Housewife	Self-employed		28(93,3%) 2 (6,7%) 28(93,3%) 2 (6,7%) 0,69
Length of service as a cadre	≤ 5 years	5-10 years	>10 years	12 (40%) 7 (23,3%) 11(36,7%) 13(43,3%) 11(36,7%) 6 (20%) 0,30
Traaining history	Never	Growth monitoring	IYCF	21 (70%) 6 (20%) 3 (10%) 24 (80%) 5 (16,7%) 1 (3,3%) 0,11

¹ Chi-square or Fisher exact test for categorical data

The performance of the frame is very closely related to its characteristics. Most cadres have a high school graduation level that exceeds the mandatory nine years (equivalent to high school) established by the Government of Indonesia. A high level of education supports the ability of cadres to receive information and deal with problems in health care (Legi et al., 2015). Most of his quarters are housewives, so he has free time to volunteer as health care's quarter (Simanjuntak, 2014).

The highest number of participants served as new cadres were under five years old, with 70% in the intervention group and 80% in the control group never trained. This is because the participants in this study are not chief cadres who frequently attend training, so it is expected that this training can improve their knowledge

The intervention was carried out in a laboratory that had a fairly spacious space and a quiet atmosphere. In addition, adequate facilities include projectors, exciting slides, video playbacks of how to use anthropometric tools, as well as learning aids such as module books, KMS, anthrometric tools, and foodstuffs. The event was followed by great enthusiasm and motivation from the participants

The statistical test results showed differences in knowledge scores between the intervention group and the control group. Knowledge scores can be seen in Table 2

Table 2. Knowledge score ratio for each group

Knowledge	Intervention (n=30)	Control (n=30)	p-Value
Stunting	Pre-test (average±SD)	Post-test (average±SD)	60,33 ± 11,29 77,67 ± 7,73 58,33 ± 11,76 68,33 ± 10,85 0,50
CGM	Pre-test (average ±SD)	Post-test (average ±SD)	70,00 ± 14,38 91,33 ± 8,86 69,33 ± 13,37 79,67 ± 13,51 0,85 0,00*
CDM	Pre-test (average ±SD)	Post-test (average ±SD)	68,00 ± 20,74 83,33 ± 13,97 68,00 ± 15,62 74,00 ± 13,02 1,00 0,01*
IYCF	Pre-test (average ±SD)	Post-test (average ±SD)	74,67 ± 21,45 90,67 ± 11,42 76,00 ± 16,10 82,67 ± 15,52 0,78 0,02*

*Independent t test, significant p≤ 0.05

A comparison of knowledge score rates between intervention groups and control groups was performed to determine differences in knowledge score ratios prior to training (pre-test). The comparison was done with an independent t-test with a 95% confidence rate ($p < 0.05$). The pre-test results in Table 2 showed that the knowledge values of the intervention group and the control group did not differ significantly on all variables ($p > 0.05$). Both intervention groups and control groups have almost the same initial knowledge. After intervention, there is an increase in knowledge on all variables, even though the mean values of the four variables vary, but statistically, the increase differs significantly between intervention and control ($p < 0.05$).

The improvement in framework knowledge after training can also be seen from the pre- and post-intervention differences. It is known that the CGM variable has the highest differences of 21.33 points in the intervention group and 10.33 points in the control group. For more clarity, see Table 3.

Table 3. Impact of training on cadre knowledge

Variables	Intervention	Control	Post-Test vs. Pretest (95% CI)					
Knowledge of: Stunting	CGM	CDM	IYCF	17,33 ± 9,07	21,33 ± 12,24	15,33 ± 18,7	16,00 ± 17,14	10,00 ± 7,42
	10,33 ± 16,07	6,00 ± 12,20	6,66 ± 10,93	7,33 (0.55-11,44)*	11,00 (0.67-11,32)*	9,33 (1,17-17,49)*	9,33 (1,90-16,76)*	

*p-value < 0.05 . CGM: Children Growth Monitoring. CDM: Children Development Monitoring. IYCF: Infant Young Children Feeding.

Table 3 shows that treatment in the intervention and control groups both improves framework knowledge. This is because control groups are also given nutritional education using the same methods of lectures and discussions as well as modules. At the time of education, also accompanied by video playback, growth monitoring methods are the same as those done in intervention groups and thus also enhance the knowledge of the framework. However, the value of the intervention group is greater than that of the control group, which means that training is more effective in improving knowledge of the framework than that given only to nutrition education without training.

According to the book of healthcare cadre guides published by the Ministry of Health in 2019, cadre should have sufficient knowledge about Posyandu, especially the five-step system, ranging from registration, weighing, completion of the growth graph, certification, and basic health services, as well as good performance in carrying out his duties as kader (Kemenkes, 2019).

The results of this study are in line with the Rahmawati (2019) study, which showed that there was an increase in the value of cadre knowledge after nutrition education in intervention and control groups. However, with simulation techniques and practice, it is possible to raise the knowledge score of the cadres higher than the control group, who only received nutrition education with lecture techniques. (Rahmawati et al., 2019). Also with the research conducted by Hastuti (2017), which says that the combination of nutrition education techniques with simulation and practice and supporting media such as modules proved to be effective in improving knowledge and framework skills (Hastuti & Sembiring, 2017).

Through simulation and practical media, cadres gain direct experience applying previous theoretical knowledge to help cadres better understand the material and how to apply it. By engaging directly in practice, cadres are more active in the learning process. Active learning tends to be more effective as students directly experience and solve problems (Kasi, 2023).

In practical practice, cadres can also receive immediate feedback on their actions from facilitators. This feedback helps them to correct their mistakes and improve their skills. Thus, they are more confident in doing their job on the ground. Measurement of anthropometry is generally thought to be easier for posyandu frames than monitoring child development because the process of measuring anthropometrics usually has clear and direct instructions. For example, there are specific guidelines on how to use measuring tools, correct positioning, and how to read results that make this process simpler for frames (Lensoni et al., 2023). Instead, child development monitoring involves assessing more complex aspects, such as motor, linguistic, and social-emotional development. Cadres need to understand a range of development indicators that can vary depending on age and environment, which adds complexity to monitoring (Lestari et al., 2023).

In addition to knowledge, framework skills in anthropometric measurement are also assessed. The results can be seen in Table 4.

Table 4. Impact of training on cadre skills

Skills	Intervention (n=30)	Control (n=30)	p-Value				
CGM	Pre-test (rataa±SD)	Post-test1 (rataa±SD)	Post-test2 (rataa±SD)	69,50 ± 5,92	78,83 ± 5,52	80,17 ± 5,64	
	67,83 ± 5,82	71,33 ± 5,56	73,00 ± 6,24	0,27	0,00*	0,00*	
	Post-test 1- Pre-test Effect size						
	Post-test 2-Post-test1	Effect size	9,33±5,68	1,66± 3,55	3,50±4,93	1,33± 2,60	0,00*
	0,68						

*p-value < 0.05 . CGM: Children Growth Monitoring.

A person or group engages in training, a learning process that prioritizes practice over theory, with the goal of enhancing abilities in one or more specific types of skills. (Husnaniyah et al., 2022).

Table 4 shows that there is no significant difference between the pre-test skill scores of the intervention and control groups ($p > 0.05$). The post-test 1 results after the intervention and the post-test 2 months following the intervention demonstrate significant differences between the two groups. Based on the difference in growth monitoring skills scores between prior and post-intervention, it is known that training can significantly improve the skill score in intervention groups by 9.33 points relative to higher than the control group of 3.50 points.

Both the intervention and control groups improve their skills, just like knowledge does. This is because the control group is also educated, and respondents read growth monitoring modules that improve skill scores, even if not as much as the intervention group.

The change in skills on the frame, according to the researchers, is due to the absorption of information with the audiovisual media. Besides, there are simulation methods and practices given, making it easier for cadres to remember and do what they have done themselves and seen in person. By accepting interventions that include repetitive practice and simulation, cadres in the intervention group tend to feel more confident in carrying out their duties. This confidence, in turn, increases their effectiveness in applying the skills learned at Posyandu.

Hal ini sesuai dengan hasil penelitian yang This is in line with the results of research conducted in the village of Meteseh, Boja, Kendal which shows that the training of posyandu cadres can improve skills in anthropometric measurement, which is important to detect nutritional problems

such as stunting in young children (Lestari et al., 2023).

The knowledge of the frames influences the value of the precision and accuracy of frames in conducting anthropometric measurements (Hardiyanti et al., 2018).

The combination of lecture methods, simulations and demonstrations in the provision of skills-enhancing material will help to convey information more effectively to the target (Asriwati, 2022). Improved cadre skills will enhance cadre competence in providing service (Sulaiman et al., 2018).

Conclusion

Nutrition training can significantly improve kader knowledge scores on stunting, CGM, CDM, and IYTV, as well as kader skills in growth monitoring. Regular and continuous training using simulation methods and practice is necessary. It aims to keep the knowledge and skills of cadres growing and awakening. This study has a limitation in that it does not account for the need for young volunteers according to age groups with various complex conditions in monitoring development, such as comfortable conditions and long time

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References

- Asriwati. (2022). *Communication for Behavioral Impact (Combi) Dalam Pengendalian Demam Berdarah Dengue*. Syiah Kuala University Press.
- Bappenas. (2020). Rancangan Teknokratik Rencana Pembangunan Jangka Menengah Nasional (RPJMN) 2020-2024. Kementerian Perencanaan Pembangunan Nasional/Badan Perencanaan Pembangunan Nasional: Jakarta.
- BPS. (2022). Jumlah Balita Stunting Menurut Kabupaten/Kota (Jiwa), 2021-2022. Badan Pusat Statistik Jawa Tengah: Nusa Tenggara Timur.
- BPS NTT. (2022). *Rata-rata Lama Sekolah Menurut kabupaten Kota*. <https://Ntt.Bps.Go.Id/Indicator/26/49/1/-Metode-Baru-Rata-Rata-Lamanya-Sekolah-Menurut-Kabupaten-Kota>. Html (Diakses Pada Tanggal 26 April 2023).
- Direktorat Jendral Perbendaharaan. (2021). Kajian Fiskal Regional Provinsi Nusa Tenggara Timur 2021.
- Effendy, D. S., Prangthip, P., Soonthornworasiri, N., Winichagoon, P., & Kwanbunjan, K. (2020). Nutrition education in Southeast Sulawesi Province, Indonesia: A cluster randomized controlled study. *Maternal & Child Nutrition*, 16(4), e13030.
- Elisaria, E., Mrema, J., Bogale, T., Segafredo, G., & Festo, C. (2021). Effectiveness of integrated nutrition interventions on childhood stunting: A quasi-experimental evaluation design. *BMC Nutrition*, 7(1), 17.
- Hardiyanti, R., Jus'at, I., & Angkasa, D. (2018). Hubungan lama kerja menjadi kader, pengetahuan, pendidikan, pelatihan dengan presisi dan akurasi hasil penimbangan berat badan balita oleh kader Posyandu. *Action: Aceh Nutrition Journal*, 3(1), 74-81.
- Hastuti, S., & Sembiring, I. N. (2017). Effect of empowerment of cadres by using module for changes in nutritional behavior in pregnant women in Dlingo, Bantul, Indonesia. *ASEAN/Asian Academic Society International Conference Proceeding Series*.
- Husnaniyah, D., Yulyanti, D., Sari, D. Y., Maulana, R., & Tarkawi, T. (2022). Perbedaan Pengetahuan Kader Posyandu Tentang Pengelolaan Posyandu Sebelum Dan Sesudah Dilakukan Pelatihan Di Desa Wanantara Kecamatan Sindang Kabupaten Indramayu. *Proceeding Seminar Nasional Keperawatan*, 8(1), 104-110.
- Kasi, R. (2023). Pembelajaran Aktif: Mendorong Partisipasi Siswa.
- Kemendes. (2018). RISKESDAS 2018. In *Badan Penelitian dan Pengembangan Kesehatan* (2018). <https://doi.org/10.1517/13543784.7.5.803>
- Kemendes, R. I. (2019). Panduan Orientasi Kader Posyandu. Kemendes RI, 53(9).
- Kemendes, R. I. (2023). Survei kesehatan Indonesia. Survei Kesehatan Indonesia.
- Legi, N. N., Rumagit, F. A., Montol, A. B., & Lule, R. (2015). Faktor yang berhubungan dengan keaktifan kader posyandu di wilayah kerja Puskesmas Ranotana Weru. *Jurnal GIZIDO*, 7(2), 429-436.
- Lensoni, L., Elmiyati, E., Yulinar, Y., Yahya, M., & Hanum, U. (2023). The Effectiveness of Using the Anthropometric Stunting Meter in Children Aged 24-59 Months at the Lageun Health Center, Aceh Jaya District. *Jurnal Penelitian Pendidikan IPA*, 9(9), 6952-6956.
- Lestari, P., Kurniati, W. D., & Hidayati, A. H. (2023). Peningkatan Keterampilan Kader Posyandu dalam Pengukuran Antropometri di Desa Meteseh, Boja, Kendal. *Poltekita: Jurnal Pengabdian Masyarakat*, 4(2), 594-601.
- Noya, F., Ramadhan, K., Tadale, D. L., & Widayani, N. K. (2021). Peningkatan pengetahuan dan keterampilan kader melalui pelatihan kader posyandu remaja. *JMM (Jurnal Masyarakat Mandiri)*, 5(5), 2314-2322.
- Paramashanti, B., & Sulistyawati, S. (2018). Effect of integration of nutrition intervention and development stimulation on weight gain and development of wasted children. *J. Gizi Klin. Indones*, 15, 16-21.
- Peraturan Presiden. (2021). *Peraturan Presiden RI No 72 tahun 2021 tentang Percepatan Penurunan Stunting*. Published 2021.
- Rahmawati, S. M., Madaniyah, S., Anwar, F., & Kolopaking, R. (2019). The effectiveness education of counseling of infant and young child feeding as intensive to improve counseling performance of Posyandu cadres in Bogor, Indonesia. *International Journal Of Community Medicine And Public Health*, 6(6), 2280.
- Simanjuntak, M. (2014). Karakteristik sosial demografi dan faktor pendorong peningkatan kinerja kader posyandu. *Jurnal Penyuluhan*, 10(1).
- Siswati, T., Iskandar, S., Pramestuti, N., Raharjo, J., Rubaya, A. K., & Wiratama, B. S. (2022). Impact of an Integrative Nutrition Package through Home Visit on Maternal and Children Outcome: Finding from Locus Stunting in Yogyakarta, Indonesia. *Nutrients*, 14(16), 3448.
- Sulaiman, S., Sutandra, L., Vera, Y., & Anggriani, A. (2018). Pendampingan Kader Posyandu Lansia di Suka Raya. *Journal of Dedicators Community*, 2(2), 116-122.
- Titaley, C. R., Dibley, M. J., Ariawan, I., Mu'asyaroh, A., Paramashanti, B. A., Alam, A., Damayanti, R., Do, T. T., Ferguson, E., & Htet, M. K. (2022). The impact of a package of behaviour change interventions on breastfeeding practices in East Java Province, Indonesia. *Maternal & Child Nutrition*, 18(3), e13362.

