The Effect of Family Empowerment Based on Family-Centered Nursing on the Level of Family Independence in Preventing Stunting in Toddlers in the Simomulyo Community Health Center Working Area, Surabaya

Siti Nurjanah[1,*], Umdatus Soleha[2], Umi Hanik[3], Fritria Dwi Anggraini[4]

[1]*Department of Nursing, Faculty Nursing and Midwifery, Universitas Nahdlatul Ulama Surabaya, East Java, Indonesia. Email: nungj@unusa.ac.id*
[2]*Department of Nursing, Faculty Nursing and Midwifery, Universitas Nahdlatul Ulama Surabaya, East Java, Indonesia*
[3]*Department of Nursing, Faculty Nursing and Midwifery, Universitas Nahdlatul Ulama Surabaya, East Java, Indonesia*
[4]*Department of Nursing, Faculty Nursing and Midwifery, Universitas Nahdlatul Ulama Surabaya, East Java, Indonesia*

KEYWORDS

Stunting, Family Empowerment, Family Centered Nursing, Family Independence

ABSTRACT

Introduction: Stunting in toddlers is a major public health concern that impacts the next generation. It was suggested that the problems that occurred at the Simomulyo Health Center in Surabaya are mostly the result of parental and family circumstances. But at now, families and parents are unable to carry out their roles to the best of their abilities. The reason for this examination was to explore the relationship between family empowerment and family independence in preventing little child stunting, utilizing the family-centered nursing paradigm as a basis. Method: The research design employed a straightforward random sampling technique, and 154 respondents in total were sampled. Utilizing inclusion and exclusion criteria, 77 respondents were allocated to the intervention bunch and 77 respondents to the benchmark group. The instruments utilized in this experiment were questionnaires. 1) Demographic data; 2) Family assessment using the Family Centered Nursing Model of the Ministry of Health, developed from Friedman's research. This family examination will be conducted with the presence of a health provider. Assess the family's resources and strengths using the SCREEM (Social, Cultural, Religious, Economic, Educational, and Medical) framework. The statistical analysis used the Mann-Whitney test with p0.05 and the Wilcoxon signed rank test. Results: The outcomes showed that there was a significant distinction in the level of family independence between the intervention and control bunches following the intervention. The difference test between the treatment and control groups produced a value of $p<0.001$ when conducted using Mann Whitney. Conclusion: Family empowerment grounded in a family-centered nursing paradigm can increase the degree of family independence and ward off stunting in toddlers. A later study found that toddler stunting can be avoided with greater family independence. Further research included a sustained coaching program for stunting prevention that spans from the beginning of a marriage to the first 1000 days of life (HPK).

1. Introduction

A brain developing below average can slow and limit mental growth, and stunting is a problem that raises the risk of morbidity and mortality. The public health issue of stunting in toddlers has a negative effect on current and future generations (Lutfiana, 2018) (Lutfiana, 2018). Toddler stunting is a persistent nutritional issue brought on by a variety of variables, including socioeconomic circumstances, maternal nutrition during pregnancy, baby sickness, and inadequate nutritional intake (Hulloli et al., 2021). Long-term malnutrition and repeated infections are the two primary drivers of inability to flourish in kids younger than five. The aggravation of mental health, intelligence level, actual development issues, and metabolic sicknesses in the body are the transient effects that stunting toddlers will endure (Tri, 2018). Long-term influences remember a downfall for scholarly execution and mental capability, diminished insusceptibility that builds defenselessness to disease, and an expanded gamble of diabetes, obesity, heart disease, stroke, cancer, and old age impairment (Sari, Indah Purnama, Yustini Ardillah, 2020). Based on information gathered by the World Health Organization (WHO), Indonesia is positioned third among the Southeast Asia/South-East Asia Regional (SEAR) nations with the best recurrence of stunting among kids under five. Roughly 30.8% of Indonesian children suffer from stunting, according to the 2018 Riskesdas; the percentages are higher for short toddlers (19.3%) and very short toddlers (11.5%).

A province in Indonesia called East Java has a 26.7% prevalence of stunting. According to information from the Surabaya City Health Office, there were 15,391 toddlers with stunting in 2019 compared to 16,220 in 2018 (Data, 2018). Stunting incidents are widespread in Surabaya, especially the vicinity of the Simomulyo Health Centre (Kodric et al., 2021). Based on simultaneous weighing data and baseline monitoring data for stunting under five, it is known the commonness of stunting under five in the Simomulyo Health Center locale was 32 under five in August 2021 and 32 under five in February 2022

(Padmanabhan et al., 2011). The number of stunted children under five did not decrease as a result of this data, although there were some changes in the patients, including some who outgrew their stunting and moved homes as well as some newly discovered stunted children. Toddler stunting is a persistent nutritional issue brought on by a variety of variables, including socioeconomic circumstances, maternal nutrition during pregnancy, baby sickness, and inadequate nutritional intake. The two primary reasons why children under five years old fail to flourish are chronic malnutrition and recurrent illnesses (Yolvi et al., 2023). Stunted toddlers will experience short-term problems with their IQ, physical growth, brain development, and metabolism (Bobir et al., 2024). Long-term influences remember a decay for scholarly execution and mental capability, diminished resistance that expands weakness to disease, and an expanded gamble of diabetes, obesity, heart disease, stroke, cancer, and old age impairment (Astuti & Purwaningsih, 2019).

The Jago Ceting Programme, also known as Jagongan Prevent Stunting, was promoted by the Surabaya City Government (Pemkot) through the Regional Apparatus Heads (PD) and Rini Indriyani, the head of the Surabaya City PKK Mobilisation Team (TP). To avoid stunting in the City of Heroes, this socialisation takes the shape of a champion. "Health issues are not the only causes of stuttering. However, it might be brought on by economic factors, healthy lifestyle choices, parenting practises, or environmental issues. In order to combat stunting, he worked in tandem with all of the PD Surabaya City's leaders, Puskesmas, sub-districts, and PKK cadres. Because, in his opinion, overcoming stunting necessitates extensive cooperation with numerous parties. (Indriyani, 2021). To maximize the family empowerment approach, a model that will be utilized as an aide and perspective while giving nursing administrations might be required. (D Watkins, 2015). If a model is created based on the demands of those who use and offer health services—in this case, community and family nurses—it will have a positive and beneficial effect. Family Centred Nursing, developed by Friedman, is one nursing approach that can be utilised with families. Family coaching is a key component of family-centered nursing, which aims to promote the health of the entire family and help families deal with health issues (D Watkins, 2015). Nursing for Healthy Children (Immunisation and Development of Children), Nursing for Sick Children (Children with Special Needs, Children with Chronic Pain), and Complementary Therapy for Children (Pain Management and Massage) are the three categories under which Fishbone Nursing for Children is organised. In 2023, research will concentrate on empowering families and caring for healthy children who endure stunting (Moshinsky, 1959). To keep away from toddler stunting, this study expected to determine the effect of family empowerment based on the Family Centered Nursing Model on the level of family independence. To forestall toddler stunting, it is basic that family empowerment based on the Family Centered Nursing Model be utilized. The effectiveness of family independence based on the Family Centered Nursing Model in preventing toddler stunting has never been the subject of a research. Research is currently restricted to the reasons for stunting. The arrangement is the main part of this current year-long investigation (Kemenkes, 2016).

2. Methodology

Design and Sample

This sort of study utilizes a non-comparable gathering plan in a semi experimental way to research the effects of family-centered nursing-based family empowerment on family independence in stunting counteraction. (Nursalam, 2016). Two gatherings were shaped, and each gathering went through an underlying estimation (pre-test) to determine the baseline score before the intervention. This pre-test and post-test configuration was utilized. The 154 youngsters and families in the UPTD Simomulyo Health Center Surabaya working area who were mothers of hindered toddlers were the review's objective gathering. There were two subject gatherings in the review: the benchmark group and the intervention bunch. The example was likewise separated into two gatherings: a treatment bunch comprising of 77 respondents, and a benchmark group comprising of 77 respondents. A straightforward random testing approach will be utilized to choose the example based on the inclusion and exclusion criteria. Families must fulfill the following conditions in order to be featured: a) it must be a nuclear

family; b) toddlers must share the home with the family; c) the family must agree to participate in the survey; and d) the family must be able to read and write. Families with physical, mental, or cognitive impairments that could obstruct study are excluded (Sopiyudin, 2014).

Data collection procedures

The family independence evaluation sheet that was utilised in this study included two components: a demographic data questionnaire and a family assessment utilising the Ministry of Health's public health nurse assessment, which was created as a result of Friedman's study (Family Centred Nursing Model). A health professional will be present for this family examination. evaluation of the resources or strengths of the family utilising the family SCREEM (Social, Cultural, Religious, Economic, Educational, and Medical) summarises the resources that are available and evaluates how well-equipped families are to provide health services or deal with family issues. 3) The Ministry of Health uses an independent family indicator, which is a checklist, to determine the level of family independence in the community health care programme. There are four categories: (1) independent family level 1 (KM I), which refers to families receiving health workers and services; (2) level II independent families (KM II), which refers to families capable of implementing KM I and who are aware of and can articulate problems that may arise; and (3) level III independent families (KM III). (3) Independent family IV (KM IV), which is KM III paired with family behaviour that can carry out active promotional actions; (4) Independent family V (KM V), which is KM II coupled with family behaviour that can carry out preventive measures. (kementrian Kesehatan Republik Indonesia, 2018). The study was carried out from May to July 2023. The intervention group had four sessions over the course of four weeks, lasting 30 minutes each. These sessions included health education techniques such as lectures, debates, mentoring, counselling, and demonstrations. Each session can include direct interventions in the cognitive, emotional, and psychomotor domains. Each respondent received 4 home visits within one month after receiving 1 intervention within one week. The intervention was carried out through home visits. The researcher and respondent came to an agreement over the length of the house visit. (Anugraheni, 2012). Four meetings made up the intervention phase, and they were as follows: The preparation stage and the second step, which is family empowerment in the form of a family study utilising an evaluation format adapted from the Friedman family format, were carried out during the first session and the first week. The Family SCREEM format was used by researchers to examine the resources that were accessible to the family. The third stage, known as planning, should be carried out during the second session of the second week. The first step in planning is to describe the findings of the Family Centred Nursing Model. Third session, third week: Complete the implementation step. The implementation phase consists of carrying out the draught planning in relation to information that families should know about stunting. Fourth session, fourth week: Complete the evaluation and termination stages, which are the fifth and sixth steps. Following the fulfillment of the termination stage, a post-test was given to the intervention bunch as well as the control bunch.

Ethical Consideration

This research was approved by the Research Ethics Committee of the Chakra Brahmanda Lentera Foundation in May with number 096/016/V/EC/KEP/LCBL/2023.

Data analysis

Paired sample t-tests and independent sample t-tests with $p<0.005$ were utilized to test the data investigation.

3. Results and discussion

Table 1. Subjects' Characteristics

Characteristic	Intervention Group (n=77)		Control Group (n=77)		p-value
	f	%	f	%	
Age (Years)					0.929
Early adulthood (21-30)	26	33.7	35	45.7	

Late adulthood (31-40)	32	41.5	17	22,0	
Early old age (41-50)	19	24.8	25	32.3	
Education					
Basic	6	7,7	20	25.9	0.480
Intermediate High	60 11	77,9 14,4	48 9	62.3 11,8	
Profession					
Civil servants	15	19.4	18	23,6	
Entrepreneur	30	38.9	35	45,4	0.611
House Wife Does not work	25 7	32.4 9,3	20 4	25,9 5,1	
Get information about stunting in the last 3 months					
Yes	45	58.4	49	63,6	0.611
No	32	41.6	28	36,4	

Lavene's test was utilized to determine whether the characteristics of respondents in the intervention bunch and the control bunch were homogeneous. The p-values for age (0.929), education (0.480), profession (0.611), and receiving information (0.611) were displayed.

Table 2. Family characteristics at the Simomulyo Health Center Surabaya were distributed based on developmental stage and economic position in both the treatment and control groups.

Family characteristic	**Intervention Group (n=77)**		**Control Group (n=77)**		**p-value**
	f	**%**	**f**	**%**	
Stages of family development					
First child birth family stage)	16	20.7	6	7.8	
Family stage with preschooler	32	41.5	26	33,7	
Family stage with schoolchildren Family stage with teenage children	19 10	24.6 12,2	25 20	32.4 25,1	
Economic level					
Capable Unable	26 51	33,7 66,3	34 43	44.1 55,9	

Table 2. Family kinds and traits in the vicinity of Simomulyo Health Center For the most part, they resemble large families. Compared to a relatively small percentage (33.7%) of the control group's families who were in the developmental stage of families with the birth of their first child, nearly half (41.5%) of the treatment group's families were in the developmental stage of families with preschoolers. Contrasted with the majority of families in the control group (55.9%), the majority of families in the treatment group (66.3%) likewise have a low financial position.

Tabel 3. Effects of family empowerment on the independence of families receiving healthcare services and workers based on the family-centered nursing model

	Catagory	**Intervention Group (n=77)**		**Control Group (n=77)**	
			%		**%**
Pre test	Not enough	5	6,4	3	3,8
	Enough	25	32,4	27	35,0
	Good	47	61,2	47	61,2
	Total	77	100	77	100
Post test	Not enough	5	6,4	3	3,8

	Enough	10	12,9	12	15,5
	Good	62	80,7	62	80,7
	Total	77	100	77	100
Wilcoxon signed rank test		p<0,001		p<0,001	
Mann whitney test		p<0,001			

Table 3 shows that the independence of the family in receiving officers and health services for stunting during the pre-test of the treatment group was generally (61.2%) in the good category after nearly all family empowerment interventions (80.7%) were in the good category. The majority of the control group (61.2%) scored in the "good" range according to pre-test results, and almost all (80.7%) scored in the same range according to post-test data. The Wilcoxon rank test results in the treatment group and the control group showed contrasts in the family independence in getting health professionals and administrations when the intervention, with a p0.00. A p-value of 0.001 was found in the Mann-Whitney test results, showing a significant contrast between the treatment group's and the control group's post-test results.

Table 4. The impact of family empowerment through the family-centered nursing paradigm on family autonomy in recognizing the issue of toddler stunting at the Simomulyo Health Center in Surabaya

	Catagory	**Intervention Group (n=77)**		**Control Group (n=77)**	
			%		**%**
Pre test	Not enough	38	49,3	28	36,3
	Enough	30	38,9	33	42,8
	Good	9	11,8	16	20,9
	Total	77	100	77	100
Post test	Not enough	10	12,9	30	38,9
	Enough	14	18,1	31	40,2
	Good	53	69	16	20,9
	Total	77	100	77	100
Wilcoxon signed rank test		p<0,001		P=0,080	
Mann whitney test		p<0,001			

Table 4: During the pre-test, over half (49.3%) of the families in the treatment group showed inadequate knowledge about the problem of toddler stunting, while the control group's percentage was comparatively lower (42.8%). Following the family empowerment intervention, the majority of the treatment group (69%) had good knowledge (post-test). Just 40.2% of the control group have adequate knowledge.cThe null hypothesis that the intervention group's information on stunting changed between the pre-and post-intervention tests was rejected based on the examination of the Wilcoxon marked rank test between the pre-test and post-test data on stunting information in the treatment group, which produced a p-value 0.001 with a value = 5%. therapy. H0 is accepted based on the Wilcoxon marked rank test examination of the pre-test and post-test data on stunting information in the control group, which produced a value of p = 0.080. = 5%, under the assumption that there is no distinction in the level of information about stunting between the pre-test and post-test.cThe results of the Mann-Whitney test showed a p-value of.0.001, really intending that there was a significant distinction between the post-test results in the treatment group and the control group.

Table 5. The impact of family empowerment through the use of the family-centered nursing model on family freedom in terms of using medical services in the Simomulyo Health Center neighborhood in Surabaya

	Catagory	**Intervention Group (n=77)**		**Control Group (n=77)**	
			%		**%**

Pre test	Not enough	42	54,5	30	38,9
	Enough	30	38,9	40	51,9
	Good	5	6,6	7	9,2
	Total	77	100	77	100
Post test	Not enough	7	9,2	32	41,5
	Enough	12	15,3	38	49,3
	Good	58	75,5	7	9,2
	Total	77	100	77	100
Wilcoxon signed rank test		p<0,001		p=0,257	
Mann whitney test		p<0,001			

Table 5: Prior to the family empowerment intervention, almost all participants (75.5%) in the treatment group fell into the "less" category (54.5%) for family independence. For the control group, the majority of pre-test results (51.9%) and post-test findings showed that over half (49.3%) fell into the adequate category. The Wilcoxon signed rank test results in the treatment group showed contrasts in family independence in knowing the utilization of healthcare administrations when the intervention, with a p-value of 0.001. The control group didn't vary, as confirmed by a score of p = 0.257. A p-value of 0.001 was found in the Mann-Whitney test results, showing a significant contrast between the treatment group's and the control group's post-test results.

Table 6: The effect of family empowerment in the Simomulyo Health Center region of Surabaya through the family-centered nursing model on family independence in comprehending basic care strategies for stunting

	Catagory	**Intervention Group (n=77)**		**Control Group (n=77)**	
			%		**%**
Pre test	Not enough	46	59,7	40	51,9
	Enough	28	36,3	30	38,9
	Good	3	4,0	7	9,2
	Total	77	100	77	100
Post test	Not enough	5	6,4	35	45,4
	Enough	8	10,3	33	42,8
	Good	64	83,3	9	11,8
	Total	77	100	77	100
Wilcoxon signed rank test		p<0,001		p=0,1,89	
Mann whitney test		p<0,001			

Table 6 shows that in the treatment group's pre-test, the family's understanding of simple stunting treatments fell mostly (59.7%) into the "less" category, while almost all family empowerment interventions (83.3%) fell into the "good" category. The majority of the control group (51.9%) came into the less category as indicated by pre-test results, and the majority (45.4%) fell into a similar category as per post-test data. The Wilcoxon rank test results in the treatment group showed contrasts in family independence in knowing essential consideration indicators when the intervention, with a p-value of 0.001 filling in as the threshold. The control group didn't change, as confirmed by a score of p = 0.189. A p-value of 0.001 was found in the Mann-Whitney test results, showing a significant contrast between the treatment group's and the control group's post-test results.

Table 7. The effect of family empowerment in the Simomulyo Health Center region of Surabaya, based on the family-centered nursing paradigm, on family independence in preventing toddler stunting

	Catagory	**Intervention Group (n=77)**		**Control Group (n=77)**	
			%		**%**
Pre test	Not enough	46	59,7	40	51,9

	Enough	28	36,3	30	38,9
	Good	3	4,0	7	9,2
	Total	77	100	77	100
Post test	Not enough	5	6,4	35	45,4
	Enough	8	10,3	33	42,8
	Good	64	83,3	9	11,8
	Total	77	100	77	100
Wilcoxon signed rank test		p<0,001		p=0,083	
Mann whitney test		p<0,001			

Table 7 shows that after the family empowerment intervention, almost all (83.3%) of the treatment group's families were in the "good" category for their independence in preventing stunting, compared to the "less" category (59.7%) when the group was first analyzed. The majority of the control group (51.9%) came into the less category as per pre-test results, and the majority (45.4%) fell into a similar category as indicated by post-test data. The Wilcoxon rank test results in the treatment group showed changes in family independence in learning essential consideration measures when the intervention, with a p-value of 0.001. The control group didn't change, as confirmed by a score of p = 0.189. A p-value of 0.001 was found in the Mann-Whitney test results, showing a significant contrast between the treatment group's and the control group's post-test results.

Subpar brain development can slow and limit mental growth, and stunting is a condition that raises the risk of morbidity and mortality. Stunting in toddlers is a serious public health concern that impacts the next generation. Stunting in toddlers is a constant nutritional problem brought about by a variety of factors, like financial status, maternal nutrition during pregnancy, infant disease, and insufficient dietary intake. The two primary reasons why children under five years old fail to flourish are chronic malnutrition and recurrent illnesses. (Supariyasa, 2015). Stunted toddlers will experience short-term problems with their IQ, physical growth, brain development, and metabolism. Long-term results remember a downfall for scholastic performance and cognitive function, a compromised safe system that increases susceptibility to disease, a higher gamble of diabetes, obesity, heart and vein disease, cancer, stroke, and disability during old life. (Astuti & Purwaningsih, 2019). Table 3 showed that almost every one of the families in the treatment group and the control group were independent in obtaining clinical consideration, and that the families were all named "good" families. Families receiving visits and health workers' attendance in a cordial and open manner, families signing contracts, and families adhering to the signed contracts are all signs that the families are independent in receiving health workers. (Susilowati, 2016).

All the families in this study welcomed the officers in attendance at the meeting's beginning in an open and friendly manner, but due to the timing of the visit, the majority of families still lacked commitment at that point in the meeting to the contract and schedule that had been established. The lack of family commitment to the programme was the greatest barrier to implementing home visits in this study. (Dodge K, 2017). Home visits and program implementation tend to take up family time and energy, especially mothers who are busy at home (Riasmini, NM, Permatasari, 2017). Health professionals make home visits with the goal of enhancing health status, reducing the risk of infectious infections, and preventing disease recurrence. But according to the results of field observations after family-centered nursing-based family empowerment was put into place, the family was motivated and eager to participate in a health worker-led home visitation program. The findings of a statistical test revealed that there was no difference in the level of family independence among patients receiving health care before and after the implementation of family-centered nursing-based family empowerment.(Goyal, 2019).

Table 4 showed that although a few families in the treatment group and the control group knew about the stunting problem before the intervention, most of the families' information had improved in the good category after the family empowerment intervention, which was based on family-centered nursing. The control group, on the other hand, only has a little amount of information in the sufficient

category. The statistical findings demonstrate that the family empowerment intervention has an impact on knowledge changes. Conclusion: Before and after the family-centered nursing intervention, there are changes in the independence of the family in identifying stunting. Using Holland's (1953) stimulus organism response (SOR) hypothesis, (Notoatmodjo, 2016) argues that learning is the process by which knowledge changes. Four steps are provided for empowering families via family-centered nursing. Inggu with counselling techniques, direction, aid with demonstrations, practise, and direct family observation. With the help of family interventions, families can learn more about the health issues that affect their loved ones. (Sudirman, 2018). Table 5 shows the differences in the families' knowledge of how frequently they used healthcare facilities before and after the family-centered nursing-based family empowerment intervention in the treatment group. There was a difference between the treatment group and the control group in regards to family independence in terms of knowing how to utilize healthcare facilities; the treatment group had a lot greater information than the control group. In order to prevent and treat cases of toddler stunting, knowledge on how to use medical facilities is crucial (Anugraheni, 2012). Delays in seeking health services can cause stunting in toddlers and have an adverse impact on toddlers (Roso, 2019). The first attempt to seek suitable assistance with family conditions is made by the family through using health facilities. The family's measures are hoped to be adequate in order to address toddler health issues quickly and avoid the emergence of more serious issues. (Suprayitmo, 2019).

Table 6 shows that prior to the intervention, the treatment and control groups' family knowledge fell into a lower category. Nonetheless, the family knowledge in the treatment group increased after the family-centered nursing-based family empowerment intervention. Stunting-related knowledge did not advance in the control group. Respondents always participated actively in family empowerment activities, especially when stunting treatment demonstrations were carried out. The family always paid attention to every activity that was demonstrated. (Astuti & Purwaningsih, 2019). Having modules available when family empowerment is practised aids families in understanding and remembering the information that has been provided, increasing family knowledge (Maglaya, 2017). Table 7. Results indicated that both the treatment group and the control group mostly prevented toddler stunting during the pre-test, and most of them fell into the less category. Following the family-centered nursing-based intervention for family empowerment, the treatment group's rating in the almost all-good category rose. The findings of statistical analyses in the treatment group revealed that the degree of family independence in preventing stunting was significantly different before and after the intervention. The control group did not exhibit any variation. The degree of family independence serves as a gauge for determining how well the family has taken care of its health obligations (MM Friedman, 2010). obtaining health workers, obtaining services in accordance with the nursing plan, being aware of and able to communicate health issues, understanding how to use medical facilities, performing basic nursing tasks, and adopting preventative measures are all aspects of family independence (kementrian Kesehatan Republik Indonesia, 2018).

4. Conclusion and future scope

Stunting in toddlers can be avoided by empowering families through family-centered nursing and so strengthening family independence. The researchers' next trial included an application-based coaching programme for stunting prevention that runs from the start of a marriage up to a child's first 1,000 days of life (HPK).

Acknowledgment

We thank all moms with children under five in the Simomulyo Health Centre Surabaya region who consented to participate in the study as well as the health cadres who worked together to collect the data and conduct the research. We also thank Nahdlatul Ulama University in Surabaya for providing research money and inspiration throughout this research process, as well as the research team that collaborated to produce the research report.

Conflict of interest

The authors declare there is no conflict of interest in this paper

Reference

[1] Anugraheni, S. H. and K. M. (2012). *"Peningkatan Pengetahuan Masyarakat Tentang Stunting Dan Gizi Balita Di Desa Rogomulyo Kecamatan Kaliwungu." Indonesian Journal of Community Empowerment (IJCE) 1(2).*
[2] Astuti, F. P., & Purwaningsih, H. (2019). Peningkatan Pengetahuan Masyarakat Tentang Stunting dan Gizi Balita di Desa Rogomulyo Kecamatan Kaliwungu. *Indonesian Journal of Community Empowerment (IJCE)*, *1*(2).
[3] D Watkins, J. G. (2015). *Community Halth Nursing Farmeworks for Practice. Ed. London: Elsevier*.
[4] Hulloli, P. B., & Venkatesh, G. (2021). Bradford's Law in the Field of Psychology Research in India. Indian Journal of Information Sources and Services, 11(2), 52–57.
[5] Dodge K. (2017). Implementation of randomized contolled trial evaluation. *Public Health*.
[6] Goyal. (2019). *Home Visiting and Outcomes Preterm Infant: A Systematic Review*.
[7] Kodric, Z., Vrhovec, S., & Jelovcan, L. (2021). Securing edge-enabled smart healthcare systems with blockchain: A systematic literature review. Journal of Internet Services and Information Security, 11(4), 19-32.
[8] Indriyani, R. (2021). *jago Ceting, Program Pemkot Surabaya dan TP PKK Cegah Stunting*.
[9] Kemenkes, R. (2016). *"Pedoman Umum Program Indonesia Sehat Dengan Pendekatan Keluarga." Jakarta: Kemenkes RI.*
[10] kementrian Kesehatan Republik Indonesia. (2018). *Strategi Nasional Percepatan Pencegahan Anak Kerdil (Stunting)*.
[11] Lutfiana, O. N. (2018). *2018. "FAKTOR--FAKTOR YANG BERHUBUNGAN DEGAN KEJADIAN STUNTING DI WILAYAH KERJA UPT PUSKESMAS KELCOREJO KABUPATEN MADIUN TAHUN 2018."*
[12] Maglaya. (2017). *Health Education, Health Promotion, and Nursing*.
[13] Yolvi, J.O.F., Walter, G.G., Luis, A.V.F., Segundo P.V.R., Huguette, F.D.Z., Jackeline R.H.F., & Marco, A.A.B. (2023). A Novel Approach to Predict the Early Childhood Special Education Learning Skills of Autistic Children Using Ensemble Machine Learning. Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications, 14(2), 59-65.
[14] MM Friedman, V. B. & E. J. (2010). *Keperawatan Keluarga Teori dan Praktik. Jakarta; EGC. Hal: 290-413*.
[15] Moshinsky, M. (1959). No Titleيليب. *Nucl. Phys.*, *13*(1), 104–116.
[16] Padmanabhan, B., Sivakumar, R. S., & Jasper, J. (2011). DEGL based optimization for practical constrained Economic Power Dispatch problem. Journal of Electrical Engineering, 11, 26-32.
[17] Notoatmodjo, S. (2016). *Perilaku Kesehatan dan Ilmu Perilaku*.
[18] Nursalam. (2016). *Metodologi Penelitian Ilmu Keperawatan Pendekatan Praktis Edisi 4. Jakarta: salemba Medika*.
[19] Riasmini, NM, Permatasari, H. (2017). *Panduan Asuhan Keperawatan Individu Keluarga, kelompok, dan Komunitas dengan Modifikasi NANDA, ICNP, NOC, dan NIC di Puskesmas dan Masyarakat. IPKKI: Jakarta: 33-52*.
[20] Bobir, A.O., Askariy, M., Otabek, Y.Y., Nodir, R.K., Rakhima, A., Zukhra, Z.Y., Sherzod, A.A. (2024). Utilizing Deep Learning and the Internet of Things to Monitor the Health of Aquatic Ecosystems to Conserve Biodiversity. Natural and Engineering Sciences, 9(1), 72-83.
[21] Roso. (2019). Peran keluarga prasejahtera dengan upaya pencegahan. *Jurnal Keperawatan*.
[22] Sari, Indah Purnama, Yustini Ardillah, and A. R. (2020). *"Berat Bayi Lahir Dan Kejadian Stuntingpada Anak Usia 6-59 Bulan Di Kecamatan Seberang Ulu I Palembang (Artikel Jurnal)." Jurnal Gizi Indonesia 8(2): 110–18.*
[23] Sopiyudin, D. M. (2014). *"Statistics for Medical and Health." Jakarta: Salemba Medika.*
[24] Sudirman. (2018). Pengaruh Pendidikan Kesehatan tentang Gizi Terhadap Perilaku Ibu. *Jurnal Kesehatan*.
[25] Supariyasa. (2015). *Pendidikan dan Konsultasi Gizi*.
[26] Suprayitmo. (2019). Strategi pemberdayaan keluarga Modul Pertahanan dan pemberdayaan. *Jurnal Kesehatan*.
[27] Susilowati. (2016). *"Gizi Dalam Daur Kehidupan." PT Refika Aditama: Bandung.*
[28] Tri, S. (2018). *Stunting*.