



The Effectiveness of Interprofessional Collaboration Practice to Reduce The Risk of Stunting: An Integrative Review

Sulistyaningsih^{1*)}, Resya Aprillia², Lulu Annisa³, Cindy Putri Febrianti⁴

^{1,2,3,4} Universitas 'Aisyiyah Yogyakarta

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ABSTRACT

Stunting is a chronic nutritional problem that results in the height of children under five years old being inappropriate for their age or causing growth delay of children. Success in Interprofessional Collaboration Practice (IPC) in reducing the risk of stunting can be assessed from several indicators, including Framework WHO and IPEC. This review aimed to synthesize the existing evidence regarding the effectiveness of IPC in an effort to reduce the risk of stunting. The integrative review adapts Reporting Flowchart from Bulmer Smith et al., 2009. Pubmed, Proquest, and Grey literature were used as the databases and accessed through the Google Scholar search engine by filtering articles published from 2017-2022. There were 10 of the 1,019 articles screened by inclusion and exclusion criteria in this review. Critical Appraisal uses the tools of The Joanna Briggs Institute (JBI). This review found that several indicators of IPC success in reducing stunting risk include roles or responsibilities, interpersonal communication, values and ethics, work culture, environment, institutional or agency support, and IPC results. All indicators have their interrelated roles, if collaboration practices are not carried out properly, the results obtained are less than optimal. The IPC method of reducing the risk of stunting focuses more on knowledge and health education promotions. IPC is expected to be one of the solutions that can be considered to help reduce the risk of stunting in toddlers and increase the attention of agencies/institutions with authority to provide ultimate support.

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*) corresponding author

Dr. Sulistyaningsih, S.KM.,MH.Kes

Midwifery Program, Faculty of Health Sciences, Universitas 'Aisyiyah Yogyakarta 55592, Jl. Siliwangi Jl. Ringroad Barat No.63, Area Sawah, Nogotirto, Kec. Gamping, Kabupaten Sleman, Daerah Istimewa Yogyakarta

Email: sulistyaningsih@unisayogya.ac.id

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ABSTRAK

Stunting merupakan masalah gizi kronis yang mengakibatkan tinggi badan anak di bawah lima tahun tidak sesuai dengan usianya atau pertumbuhan anak melambat. Keberhasilan *Interprofessional Collaboration Practice* (IPC) dalam penurunan resiko kejadian stunting dapat dinilai dari beberapa indikator, *Framework* WHO dan IPEC. Penelitian ini bertujuan untuk mensintesis bukti yang ada mengenai efektivitas IPC dalam upaya penurunan risiko stunting. Metode *integrative review* ini mengadaptasi *Reporting Flowchart* dari Bulmer Smith et al., 2009. Database yang digunakan yaitu 3 database yaitu *Pubmed*, *Proquest* dan *Google Scholar* dengan menyaring artikel yang terbit mulai tahun 2017-2022. Tinjauan ini berhasil menemukan 10 artikel dari 1.019 artikel yang sudah disaring dengan kriteria inklusi dan eksklusi. *Critical Appraisal* menggunakan tools *The Joanna Briggs Institute (JBI)*. Tinjauan ini menemukan bahwa beberapa indikator dari keberhasilan IPC dalam penurunan risiko stunting diantaranya peran atau tanggung jawab, komunikasi interpersonal, nilai dan etika, budaya kerja, lingkungan, dukungan institusi atau instansi dan hasil IPC. Seluruh indikator memiliki peran tersendiri yang saling berkaitan, jika praktik kolaborasi tidak dijalankan dengan baik maka hasil yang

dapatkan kurang maksimal. Metode IPC pada penurunan risiko stunting lebih berfokus pada promotif terkait pengetahuan dan pendidikan kesehatan. IPC diharapkan menjadi salah satu solusi yang dapat dipertimbangkan untuk membantu menurunkan risiko stunting pada balita dan meningkatkan perhatian instansi/ institusi yang memiliki wewenang untuk memberikan dukungan secara maksimal.

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INTRODUCTION

Stunting is a chronic nutritional problem that results in the height of children under five years old being inappropriate for their age or slowing the child's growth (Shaka et al., 2020). The World Health Organization (WHO), stated that the global prevalence of under-fives experiencing stunting in 2020 is 149.2 (63.8%) million children. This number is the highest compared to the number of other malnutrition such as wasting which is 45.4 million children (19.4%) and 38.9 million overweight children (16.6%) (UNICEF/WHO/WORLD BANK, 2021). In addition to having an impact on physical growth, stunting in early childhood can affect cognitive skills resulting in a child's ability to be low so that it has an impact on the quality of human resources (HR) (Eshete Tadesse et al., 2020), country's economy, and poverty (Yaya et al., 2020).

Stunting can be caused by a lack of nutritional intake in the first 1000 days of life (Bogale et al., 2020). In addition, poor maternal health, sanitation, clean water, parenting, and socio-economic conditions are the causes of the risk of stunting (Trauner & Williams, 2021). The National Strategy for the Acceleration of Stunting Prevention (STRANAS Stunting) confirms that coordination from the government sector is critical in aligning incentives across national, regional, and local governments (Mulmi et al., 2016). Collaboration does not only involve professions, but also between organizations, education, health, housing, law enforcement, social care, and communities, between sectors, and commercial (Taufiqurrahman, Dr. Sri Utami, 2020). Thus, the involvement of various parties is needed in supporting the suppression of the risk of stunting (Namirembe et al., 2021).

Effective IPC in improving health services to patients consists of health professionals such as doctors, nurses, pharmacists, nutritionists, and physiotherapists (Health Professional Education Quality (HPEQ) Project, n.d.). IPC is also defined as a set of healthcare-based teams, from healthcare coordination which includes regular communication to integration in health care. Inter-professional collaboration is designed to provide comprehensive health care to groups at risk for stunting (Reeves S, Lewin S, Espin S, 2019).

The success of IPC in reducing the risk of stunting can be assessed from several indicators of the Core Competencies for IPC framework including 1) Roles/responsibilities, 2) Interprofessional communication and 3) Values/ethics 4) Team and Teamwork (Interprofessional Educational Collaborative et al., 2016) and the Framework for Action on Interprofessional Education & Collaborative Practice which includes 1) Work culture, 2) Environment and 3) Institutional support ((WHO) World Health Organization, 2010). Interprofessional collaboration also has a positive effect on patient satisfaction and improves healthcare services (Kusparlina, 2021). The importance of IPC in dealing

with stunting is increasingly being realized by health professionals to improve the quality of services. Therefore, the responsibility and understanding of each profession are important in ensuring the maximum implementation of IPC (Taufiqurrahman, Dr. Sri Utami, 2020).

Teamwork has a relationship to the success of IPC in the health care of patients and community groups. Based on the results of the review, it was found that 1 of 5 studies reviewed showed an increase in the matrix of service quality and patient satisfaction in the population group that used a multi-profession team (consisting of 4 different disciplines) in solving health problems (Will et al., 2019). In addition, based on the review, the type of intervention or team-based care model is also an indicator of the success of IPC because the provision of health services that aim to achieve patient-centered care is highly recommended (Pantha et al., 2020).

The purpose of this integrative review is to assess the existing evidence regarding the effectiveness of implementing Interprofessional Collaboration Practice in reducing the risk of stunting.

METHODS

Study design

The integrative review is considered a form of research that reviews, critiques, and synthesizes representative literature on a topic in an integrated way such that new frameworks and perspectives on the topic are generated (Loura et al., 2021).

Table 1. Framework

<i>P (Population)</i>	<i>E (Exposure)</i>	<i>O (Outcomes/ Theme)</i>
Professional Health Care Parent Toddler	Interprofessional Colaboration (IPC)	Reduced the risk of child stunting

Based on the PEO framework above, the researcher's integrative review question is how effective interprofessional collaborative practice is in reducing the risk of stunting?

Eligibility Criteria

In this stage, the authors identify articles with the following inclusion criteria: original research articles, review opinion papers, book reviews, documents/reports from UNICEF/certain formal organizations, English or Indonesian articles published in 2017-2022, full-text articles, articles relevant to the effectiveness of IPC in reducing the risk of

stunting. Exclusion criteria are articles that only discuss influencing factors and stunting reduction efforts that do not discuss IPC.

Information Sources

The databases used in this research are PubMed, Proquest, and Google Scholar. Advanced and truncation/wildcard symbols were used as strategies to obtain articles for this study. The databases have been subscribed to by the University of 'Aisyiyah Yogyakarta.

Search Strategy

The keywords used in this literature search are :
 “Professional health care OR parents OR Infant OR Child

underfive OR Toddler AND Interprofessional collaboration practice OR Collaborative care OR interprofessional collaborative practice OR Team Base AND Stunting OR Stunts OR Stunted OR Malnutrition OR Growth Disorders OR Status Nutrition OR Nutrition”.

Selection Process

Zotero reference management is used to select articles such as checking for duplication, title, finding abstract, and full text-reading. . The findings of the articles and the filter process are described in the *Reporting Flowchart* (Bulmer Smith et al., 2009), as follows:

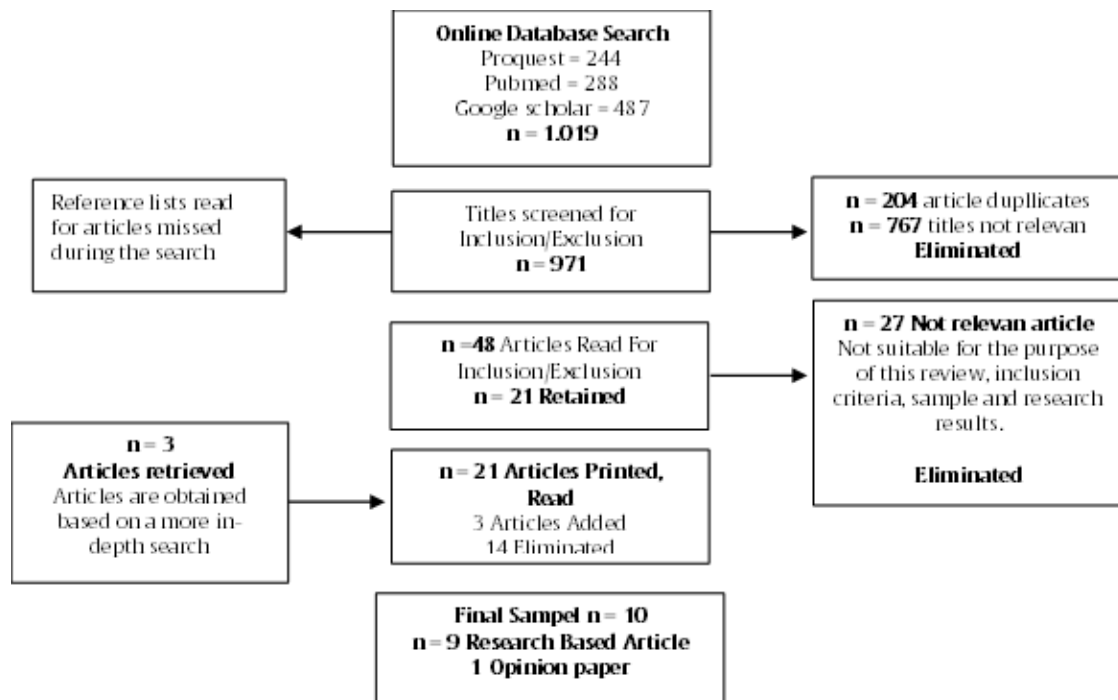


Fig 1. Flow chart (Bulmer Smith et al., 2009)

Data Collection Process

After the selection process, the relevant and detailed information was were summarized according to the characteristics of the literature study. Researchers charted

the data through the arrangement of tables that match the characteristics of the literature integrative review, which discusses effectiveness of Interprofessional Collaboration Practice in reducing the risk of stunting. The following is the data charting table:

Table 2. Charting Data

No	Title/Author(s)/ Year	Country	Aim	Research Type, Participant/Sample size. Data collecting Technique, Data Analysis	Result
A1	Effective nutrition governance is correlated with better nutrition outcomes in Nepal (Namirembe et al., 2021)	Nepal	To explore relationships between the effectiveness of nutrition governance and key nutrition indicators	It is quantitative: cross-sectional. The sample in this study was 6815 children in 5556 homes stairs using the cluster sampling technique. The data collection method used questionnaires from two Nepali national studies that were	The results of the study explain that the existence of a collaborative multi-national partnership spearheaded by the government of Nepal with government support is significantly associated with an increase in the Nutrition Governance Index (NGI) that NGI is significantly associated with an average 12% increase in high Z scores

No	Title/Author(s)/ Year	Country	Aim	Research Type, Participant/Sample size. Data collecting Technique, Data Analysis	Result
			such as stunting and wasting in Nepalese children under 5 years at national and sub- national levels.	ethically approved by the Tufts University Behavioral Research and Social Education Council (SBER) and the Nepal Health Research Council (NHRC).	for age (HAZ as stunting reduction. This suggests that the policy actions launched in Nepal improved nutrition over time thus benefiting 2 years old children as the NGI captures the effectiveness of nutrition governance in the community. In addition, it shows that the associated impacts with good governance (access to health services) is an important component in addressing malnutrition.
A2	The Effectiveness of the Interprofessional Collaboration (IPC) Program on The Attitude of Mothers and Health Cadres on Stunting at Puskesmas Karanganom Klaten Central Java Republic of Indonesia (Astuti et al., 2021)	Indonesia	To determine the effectiveness of the Interprofessio nal Collaboration program on the response of mothers and health cadres related to stunting	This is quantitative. The study used a quasi-experimental design (pretest-posttest design). The research sample consisted of 90 mothers with babies under two years old (PAUD) and 30 health cadres. Data were analyzed using a T- Test.	The results show that the IPC program significantly increased the knowledge of mothers and health cadres on stunting in children under five. The IPC program effectively influences the way mothers to think and act. This is proved by a significant difference in the actions of mothers and the attitudes of health cadres before and after the implementation of the IPC Program.
A3	Importance of Collaborative Intervention of Preconception Nutrition in Suppressing the Stunting Case in East Nusa Southeast, Indonesia (Jeffrey Jap, Sri Sumarmi, 2019)	Indonesia	To find out the importance of collaborative interventions in overcoming stunting problems with specific targets (preconceptio n mothers)	This is a literature review with a qualitative approach. 7 articles were analyzed based on keywords and met the inclusion and exclusion criteria.	The results show that the provision of collaborative nutrition-related interventions from the preconception period is very important and had many benefits. In addition, the collaboration between health professions and collaboration with related sectors is equally important. The benefits of collaboration on the provision of nutritional interventions in the preconception period on the research findings are: 1. Able to create a work culture in the workplace, 2. Able to emphasize the role of nutrition in health, 3. Accelerate the determination of nutritional status diagnosis, 4. The provision of nutritional interventions can be carried out quickly and precisely, as well as useful in monitoring for follow-up interventions, 5. Communication and planning for nutrition problems can be better It is a development related to further prevention after intervention and as a material for preparing continuing education related to nutrition.
A4	Interprofessional Collaboration Practices in Stunting Management during Covid-19 Pandemic: A Scoping Review	Indonesia	To examine the practice of interprofessio nal collaboration in handling stunting during the	This is a scoping review. The 4 articles reviewed were from the PubMed database, Google Scholar, and Science Direct. The article selection process used PRISMA-ScR and the data was analyzed in the form of data	Researchers found 3 themes from the results of the review conducted including interprofessional collaboration, stunting factors, and roles. The application of Interprofessional Collaboration (IPC) can increase the knowledge of health workers between

No	Title/Author(s)/ Year	Country	Aim	Research Type, Participant/Sample size. Data collecting Technique, Data Analysis	Result
	(Regita & Sulistyaningsih, 2022)		Covid-19 pandemic	charting.	professions regarding differences in theories, perceptions about communication, and forms of cooperation in reducing the risk of stunting.
A5	Inter-Professional Collaboration in Prevention and Management Problems of Infant and Toddler Nutrition (Werdhani, 2020)	Indonesia	To increase knowledge and perceptions of families/communities to prevent the incidence of malnutrition such as failure to thrive and obesity in children in the management of the first 1000 days of life.	It is an opinion paper, a review of primary care practice and education.	The results of the review explain the practice of interprofessional collaboration between health workers and various medical professions in each profession (doctors, nutrition specialists, midwives, nutritionists, environmental health, psychology, physiotherapy). It can address individual, family, and community health issues. In addition to collaborating between health workers and patients, medical team personnel also collaborate with families and specialists for the benefit of patients, which are indispensable in managing the first 1000 days of life from early pregnancy-toddler to the healthy growth and development of the next generation.
A6	Situational Factor Analysis About IPC (InterProfessional Collaboration) on Handling Stunting in Children (Susilaningrum, Utami, & Taufiqurrahman, 2020)	Indonesia	To analyze the influence of situational factors on interprofessional collaboration (perceptions of leader support, work systems, perceptions of empowerment of health workers) on the handling of stunting in toddlers	It is quantitative: Cross-sectional. The population is health workers in charge of handling stunting. Sampling was done by simple random sampling with a sample size of 128 people. Data analysis was performed by T-test.	The results of this study explain that factors regarding IPC (perception of leader support, perception of empowerment of health workers) increase interprofessional collaboration in handling stunting in toddlers. This is related to the better perception of health workers about empowering health workers, it will increase the IPC domain in the management of toddlers with stunting.
A7	Interprofessional Collaboration In Premarital Services At Tegalrejo Community Health Public, Yogyakarta (Vicky Yulivantina et al., 2021)	Indonesia	To explore Interprofessional Collaboration in premarital services at the Tegalrejo Health Center, Yogyakarta	This is qualitative: phenomenology The data collection technique was carried out by in-depth interviews. Data analysis was done by content analysis.	The results showed that the implementation of interprofessional collaboration in premarital services that had been implemented included midwifery services, laboratory services, general practitioner services, nutrition services, psychological services, and dental services. This collaborative activity is carried out to prepare for a healthy pregnancy free of stunting. This is a form of preventing stunting in premarital couples related to nutritional status and also the knowledge related to health and nutrition.
A8	Interprofessional Collaboration Practices: Case Study of the Handling of	Indonesia	To study interprofessional collaboration in efforts to	This is qualitative. Data were collected by observation, structured interviews, and FGD. Data analysis was carried out using content analysis. The	The results of this study reveal that various real activities are carried out in handling nutritional problems, one of which is stunting and a good understanding of inter-professional

No	Title/Author(s)/ Year	Country	Aim	Research Type, Participant/Sample size. Data collecting Technique, Data Analysis	Result
	Malnutrition in Three Public Health Centers in South Sulawesi (Risniah et al., 2018)		handle nutritional problems in toddlers	study was conducted in three Public Health Centers in Jenepono Regency. 22 informants (19 women and 3 men) participated in this study. The professionals are three doctors, seven nurses, five midwives, four nutritionists, two sanitarians, and one health promotion officer.	cooperation is shown by health workers. Many activities show the form of collaboration between professions in daily health services. Activities carried out include home visits, system references, and posyandu activities. However, this collaboration activity has not been supported by appropriate SOPs. It causes dual role problems due to unclear job descriptions.
A9	Impact of Infant and Young Child Feeding (IYCF) Nutrition Interventions on Breastfeeding Practices, Growth and Mortality in Low- and Middle- Income Countries: Systematic Review (Lassi et al., 2020)	Switzer- land	To assess the effectiveness of infant and child feeding interventions	This is a systematic review using the Cochrane Controlled Trials Register (CENTRAL), MEDLINE, and EMBASE databases. There are 77 articles reviewed. The interventions were the promotion of early and exclusive breastfeeding; Breastfeeding promotion interventions for up to 2 years; Promotion of appropriate complementary foods (knowledge or provision of complementary foods) during infancy and childhood; Community-based interventions to prevent moderate and severe acute malnutrition; Interventions carried out by health workers in collaboration with community health workers and volunteers through telephone network platforms, for example, text messages and telephone applications.	The results of this study revealed that interventions carried out by health workers (midwives, doctors, and nutritionists) were more effective than public health workers or volunteers, especially on breastfeeding outcomes, which is one way to prevent/reduce the risk of stunting. The intervention related to the promotion of complementary feeding was associated with a 0.12 SD increase in the Z TB/U score, a 13% decrease in stunting, and an 11% decrease in wasting. Interventions that were carried out in collaboration had better outcomes than the group that did not receive the intervention or standard care. These results are expected to be one of the solutions to prevent stunting in children under five in the form of interventions carried out using the IPC method.
A10	Development of Interprofessional Collaboration Model to Manage Stunting in Toddler (Susilaningrum, Utami, Taufiqurrahman, et al., 2020)	Indonesia	To develop a stunting management model with an interprofessio nal Collaboration (IPC) approach	This is a descriptive quantitative: cross-sectional. The sample was 128 people consisting of doctors, nurses, midwives, nutrition workers, environmental health workers, health analysts, and health promotion officers who work in the Public Health Center in Surabaya. The number of samples was calculated using the rule of thumb formula. Data was collected through a questionnaire with modifications related to stunting. Data analysis was done using descriptive and SEM-PLS analysis.	The results obtained that the IPC implementation model depends on personal factors such as knowledge, attitudes, self-efficacy, cooperation, and communication, as well as situational factors of health workers. Of all these factors, the individual's attitude has the biggest role in the successful implementation of the IPC for the handling of stunting in toddlers. This explains that collaboration between health care providers is necessary for every health care because no single profession can meet the needs of all patients.

Synthesis of Results

Based on the process of searching for articles in three databases, 1,019 articles were found that were relevant to the integrative review question. There were 288 articles from Pubmed, 244 articles from Proquest, and 487 from

Google Scholar. Furthermore, all articles were imported into Zotero's reference management for screening based on titles and abstracts related to "IPC in reducing the risk of stunting". There were 971 irrelevant articles, including 204 articles with inappropriate abstracts and 767 incorrect titles, so 48 articles were obtained to be read in full and re-filtered

according to the PEO framework. Several articles were found that did not meet the inclusion criteria, review objectives, samples, and research results. So that the final results obtained 10 research-based articles with each type of study used, namely 3 review articles (Systematic review, Scoping review), 3 Cross-Sectional Articles, 2 Qualitative Articles, 1 Quasy Experiment Article, and 1 Opinion Article.

The analysis carried out to interpret the large amount of information presented in the review on this approach is flexible and allows for a clear identification of dominant themes (Anderson et al., 2014). Analysis of data findings from literature sources was extracted into tables grouped by article title, author, year, country, type of research, population, data collection methods, and data analysis and research findings. Researchers conduct a thematic analysis based on the charting that has been made to interpret the findings of the theme of each article.

RESULT AND DISCUSSION

Article Characteristics

The article characteristics by country can be seen in Figure 2 below:

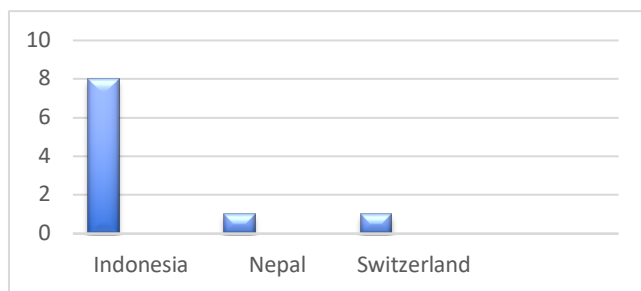


Figure 2. Articles characteristic based on country

Based on the diagram, the characteristics of articles from several countries, such as Indonesia, Nepal, Switzerland.

The article characteristics based on the article quality can be seen in Figure 3 below:



Figure 3. Articles characteristic based on quality

Based on diagram, the characteristic article from critical appraisal conducted by 10 articles used in this study, there were 6 articles of A quality and 4 articles of B quality.

Critical Appraisal Sources of Evidence

10 articles that have different research methods were found, so a Critical Appraisal assessment was carried out

with The Joanna Briggs Institute (JBI) to determine the quality of the articles (peter M, Godfrey M Christina, Mcinerney P, 2015). Based on the results of critical appraisal in 6 articles, namely [A2, A5, A6, A7, A8, and A9], all answers are "YES" in the question item column so that they are answered well/perfectly. The advantages of the article are the research objectives and the results obtained are appropriate, and complete data sources include research samples, data collection methods, sampling techniques, and instruments in each article that have been validated so that the error rate can be minimized. Whereas in 4 articles [A1, A3, A4, A10], the results were less than perfect with the shortcomings in articles [A1 and A10], namely that the inclusion/exclusion criteria were not explained, confounding factors and confounding control strategies were not explained in the article. Weaknesses in articles A3 and A4 are critical assessment of unclear articles in journals, methods to minimize errors in data extraction are not clear and assessment of publication bias is also not explained in journals.

Results of Individual Sources of Evidence

Based on the findings of the article review, there are many indicators that are in accordance with the Core Competencies for IPC including: 1) Roles/responsibilities, 2) Interprofessional communication and 3) Values/ethics 4) Team-based and Teamwork (12), Next the researchers collaborate on the findings by using the Framework for Action on Interprofessional Education & Collaborative Practice which includes: 1) Work culture, 2) Environment and 3) Institutional support ((WHO) World Health Organization, 2010).

Indicator	Article
Roles / responsibilities	A10
Interprofessional communication	A3, A4
Values / ethics	A6, A10
Work Culture (Team, teamwork, intervention)	A1, A3, A4, A5, A6, A7, A8, A9
Environment	A7
Institutional support	A1, A6, A8
IPC outcomes (Decreasing stunting prevalence, increasing knowledge, changing behavior)	A1, A2, A9

Indicator 1: Roles and Responsibilities

Roles and responsibilities include understanding personal roles in collaboration with responsibilities in the expertise of others and other professions (Putriana & Saragih, 2020). The roles and responsibilities established by each team member in Interprofessional Collaboration have a positive influence on society. This is evidenced by the active role of health workers (providing health promotion for stunting control) and affects increasing community motivation, especially among mothers of children under five (Wulandari & Kusumastuti, 2020). Knowledge, attitude, self-efficacy, and collaboration have a positive effect on Interprofessional collaboration which leads to mutual understanding in more effective teamwork (Regita, 2022).

This is following the findings of a review in the article [10] which states that the IPC implementation model depends on personal factors such as knowledge, attitudes, self-efficacy, cooperation, and communication, as well as situational factors of health workers. In the successful implementation of the IPC for the handling of stunting in toddlers, that collaboration between health care providers is needed for every health care because there is no single profession that can meet the needs of all patients and good quality of service depends on professionals who work together in teams interprofessional (Susilaningrum, Utami, Taufiqurrahman, et al., 2020). In line with research conducted by (Astuti et al., 2021), states that every health professional carries out the task of preventing and handling stunting based on their respective authority which increases good knowledge and attitudes, and understanding in the community regarding stunting control.

Indicator 2: Interpersonal Communication

Interpersonal communication is something that is the basis for every interaction in the health and nutrition field. Health workers must master interpersonal communication skills to convey information related to nutrition and health to families and communities. This is done so that the information conveyed by health workers (communicators) to families and communities can be well received.

This is following the findings of a review in articles [3] & [4] which state that interpersonal communication needs to be built in a team before providing intervention as a goal in handling nutritional problems (Jeffrey Jap, Sri Sumarmi, 2019). According to research conducted by Kusmaningrum 2018, states that the development of interpersonal communication between professionals in teams is important to prepare prospective experts to be able to communicate well in teams so that optimal collaborative services can be achieved (Kusumaningrum & Anggorowati, 2018).

Indicator 3: Values and Ethics

IPC activities are carried out together with several health workers from different backgrounds. This is not an easy thing to do. Everyone must understand each other's roles (holding the ego from being superior), take a turn with each other, exchange knowledge, and organize teamwork to achieve a common goal, namely reducing the risk of stunting in toddlers [A6]. Mutual respect between professions is a form of values and ethics which is one of the important key factors for the success of teamwork in IPC activities. Not only at an older age, but respecting each other's roles is also important [A10]. This is because this activity not only applies a new method by expanding some roles in the team but also reduces some other roles [A6]. Mutual respect in the team is one thing that must be emphasized to achieve common goals without any role conflicts between professions.

No single health professional can meet all patient needs. Therefore, team-oriented health service is needed. At IPC, each profession must take responsibility and respect each other in overcoming the health problems of each individual/patient and society (Sari, 2019). Based on literature (Putriana & Saragih, 2020), one of the collaboration competencies according to (Bridges et al., 2011) is to provide tolerance for differences, misunderstandings, and shortcomings of other professions. This is a form of values and ethics resulting from collaborative activities between professionals to respect each other's strengths and weaknesses.

Indicator 4: Work Culture (Team and Teamwork, Intervention)

Efforts to meet every patient's need cannot be done by just one health professional. Collaboration between health workers is very necessary for every treatment provided so that the quality of service will be better after IPC is carried out (Rokhmah & Anggorowati, 2017). Improved implementation and effectiveness of IPC are also related to components of effective teamwork including open communication, having clear goals, and clear roles and tasks for team members ((WHO) World Health Organization, 2010).

Various studies have revealed that the IPC method is very important to improve patient/client outcomes including the client's family, but this can happen if collaboration between professions is well established (Jalpi et al., 2020). A bad IPC method will have a bad impact on service providers and recipients. The impact caused is the increasing dissatisfaction with the rise of demands from patients or patients' families (Tampubolon, 2021). Therefore, the IPC method must be applied with a good commitment by every health professional to cooperate, respect, and empower each other to achieve the main goal of reducing the risk of stunting.

This is in line with the results of research in articles [1], [4], and [7] which show that team culture (teamwork/collaborative) through evidence-based interventions is significantly related to the incidence of stunting, with the scale of reduction in stunting described in the article [9] which is 13% in the incidence of stunting and an 11% decrease in the incidence of wasting. In addition, teamwork can also change the knowledge of health workers to the appropriate form of cooperation or partnership to improve nutrition in toddlers. According to the article [6], collaboration or empowerment between health workers will increase the IPC domain in the management of toddlers with stunting. Furthermore, this is also the same as the results of the research article [3] which explains that teamwork built between professions (collaborative intervention) has many benefits. One of them facilitates peer monitoring between health teams to provide follow-up interventions for certain population groups. However, in the research article [8] it was explained that the inter-professional collaboration (collaboration) by health workers through various activities to handle nutritional problems had not been supported by SOPs and clear team job descriptions, so it causes the problem of dual roles in its implementation.

Indicator 5: Environment

Article [A7] explains that the bride-to-be service which is one of the stunting risk reduction programs at the Public Health Centre is facilitated by several polyclinics, including: maternal and child health poly, laboratories, general poly, nutrition poly, psychology poly, and dental poly. The steps of patients coming to the Public Health Centre starts with registration, then they are transferred to the maternal and child health poly for anamnesis and physical examination, then they proceed to laboratory examinations and consultations with general practitioners. If the patient has certain conditions on the results of the supporting examination, they will be referred to the required polyclinic such as nutrition, psychology, and dentistry [A7].

The steps of this service are too long to be carried out in one day by the patient if the layout of each room is not effective. This of course will affect the IPC process in the

service of the bride and groom. Ineffective spatial planning makes the communication process in collaboration not optimal. In complex healthcare environments, poor collaboration among healthcare professionals significantly increases the likelihood of errors occurring in patient care delivery, medication error-related deaths, misplaced surgeries, and increased staff turnover (Coufal & Woods, 2018).

Every health professional spends more time in his room. If the distance of the room or an ineffective layout becomes an obstacle in the service process, the service will also be not optimal. If the interprofessional environment is smaller, the health workers can see each other and work from a reasonable distance (not too far but not too close). They become more interactive both professionally and socially and allow for more effective collaboration (Coufal & Woods, 2018). The results of research conducted by Annisa & Sulistyaningsih concluded that one of the important elements in reducing the risk of stunting through family empowerment is by paying attention to environmental hygiene such as using healthy latrines, sanitation, personal hygiene by parents, and improving environmental health (Annisa & Sulistyaningsih, 2022).

Indicator 6: Institutional/Agency Support

From the perspective of the Department of Veterans Affairs, the components of the IPC are doctors, nurses, pharmacists, psychiatrists, and technical personnel in health agencies (TJAHJONO, 2020). In some countries, the implementation of IPC has been going well. WHO noted that 5 countries successfully implemented the IPC concept in 2013 namely Canada, the United States, India, Brazil, and South Africa (Fattah, 2017). To get the support of an institution/agency requires respect, sharing of responsibility for the success of the team, balanced participation of each team member in carrying out their duties, recognition and conflict management, clear specifications of authority and accountability, clarity in decision-making procedures, communicate and share information on a regular and regular basis as well as a mechanism to evaluate results and make adjustments following applicable regulations (8, 24).

This is following the findings of a review in the article [1] which stated that the existence of a collaborative multi-national partnership spearheaded by the government of Nepal with government support is significantly related to the improvement of the Nutrition Governance Index (NGI). NGI was significantly associated with a 12% mean increase in the high Z score for age (HAZ) as stunting decreased. In addition, the findings of a review article [6] stated that factors regarding IPC (perception of leader support and perception of empowerment of health workers) increased IPC in handling stunting in children under five. This is associated with a better perception of health workers about the empowerment of health workers, the higher the IPC domain in the management of toddlers with stunting (9, 37). Research (TJAHJONO, 2020) stated that the existence of greater regulatory and legislative support affects encouraging and promoting consistency and clarity of collaborative partnerships between professionals, the scope of practice, and the availability of other health professionals that affect the effectiveness of IPC.

However, if this IPC activity does not get support from existing agencies/institutions, one of the effects is the absence of an appropriate SOP so that the health workers involved have difficulty understanding their roles and responsibilities based on the article [8]. This also affects the

ineffectiveness of teamwork which makes IPC's goals not optimal. According to research (Hustoft et al., 2019), the organizational condition is also a benchmark for the success of IPC. This is because the condition of the organization is one of the supporting elements of the coordination, process, and procedure of each multidisciplinary field of science in providing health interventions

Indicator 7: IPC Results

The benefits of doing IPC are reducing complication rates, length of stay in the hospital, conflicts between health teams, and mortality rates ((WHO) World Health Organization, 2010). Based on the articles obtained, the results of IPC activities on reducing stunting risk include: decreasing the prevalence of stunting and wasting, increasing forms of intervention such as stunting prevention (IMD and exclusive breastfeeding), increasing perceptions of good empowerment among health workers, and increasing good knowledge for families, cadres and communities related to stunting prevention and reduction [A1, A2, A9]. Significant improvement in the Nutrition Governance Index (NGI) was associated with an average 12% increase in Z score (high for HAZ age) as stunting risk prevention. This shows that the policy actions launched in Nepal improve nutrition over time so that it is beneficial for 2 years old children and has effectiveness in nutrition governance at the community level [1].

Furthermore, the researcher's findings related to the IPC outcome indicators applied in the article [2] stated that the implementation of the IPC program significantly increased the knowledge of mothers under five and cadres related to stunting. In addition, the IPC program effectively influences the mother's behavior in thinking and acting. Changes in the mindset and actions of mothers of toddlers make mothers of toddlers pay more attention to the health of their toddlers by fulfilling food with adequate nutrition to avoid stunting. Furthermore, the research conducted by (Mulmi et al., 2017) stated that collaborative multi-national partnerships, government support on investment in agriculture, education, and infrastructure support in improving the nutritional status of children. In addition, a decrease in stunting prevalence can occur after providing collaborative interventions with promotions related to Early Breastfeeding Initiation (IMD), exclusive breastfeeding, and complementary feeding as a form of reducing the risk of stunting in toddlers [A9].

LIMITATION OF THE STUDY

The limitation of this review is that it is difficult for the authors to find international articles that specifically discuss IPC on stunting management. Of the several articles found, some articles did not explain inclusion or exclusion criteria, confounding factors, confounding control strategies, critical assessment of articles, methods to minimize errors in data extraction, and assessment of publication bias.

CONCLUSIONS AND RECOMMENDATION

Interventions carried out by health workers in the application of IPC have a positive impact on reducing the risk of stunting. The authors' findings in this study are following the WHO and IPEC framework which previously served as

the basis for reference in the preparation of this review study. IPC is widely applied in developing countries and is effective in reducing the risk of stunting, especially in terms of increasing knowledge and changing maternal behavior in food processing. With the involvement of health workers in IPC (doctors, midwives, nutritionists, pharmacy, environmental health, psychology, and physiotherapy) and non-health workers (cadres and the community), and a culture of work between teams (good commitment, cooperation, roles, and duties) clear to team members and the empowerment of health workers) have a positive impact on reducing the risk of stunting. The results of the authors' review based on 10 reviewed articles show that the role/responsibility, interpersonal communication, values and ethics, work culture (team and teamwork, intervention), environment, institutional or agency support, and IPC results are indicators of the success of IPC implementation in reduced risk of stunting.

The policy of implementing Interprofessional Collaboration Practice in dealing with stunting cases is expected to be carried out effectively and maximally. The development of collaborative program activities in stunting cases can be improved continuously following the latest science that refers to evidence-based facts, achieving patient-centered care which is highly recommended. The application of room layout in the service of prospective brides, which is one of the efforts to reduce the risk of stunting, is expected to be adjusted to avoid errors in obtaining information and client comfort. Health workers, especially those who are closer to the community (midwives, health promotion officers) are expected to further enhance promotional activities related to health information and education in reducing the risk of stunting.

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