



IMPLEMENTATION OF FAMILY CENTERED-CARE (FCC) THEORY IN TELEHEALTH AS E-PARENTING FOR GOLDEN AGE CHILDREN TO PREVENT STUNTING: A LITERATURE REVIEW STUDY

IMPLEMENTASI TEORI *FAMILY CENTERED-CARE* (FCC) PADA TELEHEALTH SEBAGAI E-PARENTING UNTUK ANAK USIA EMAS DALAM MENCEGAH STUNTING: STUDI TINJAUAN PUSTAKA

*Aufa Azizah, Fahmi Wildana, Ananda Eka Prastiani, Hanny Rasni

¹Departemen Epidemiologi, Fakultas Keperawatan, Universitas Jember, Jember

*Corresponding Author: Aufa Azizah (aufaaazizah585@gmail.com)

ABSTRACT

Article History:

Submitted:
December, 2nd
2022

Received in
Revised:
December, 9th
2022

Accepted:
December, 28th
2022

Introduction: Stunting is a problem of malnutrition, recurrent infections, and inadequate psychosocial stimulation which causes disturbances in child development. Poor nutritional management in golden-age children is still a problem in many countries, including Indonesia. Management efforts are a challenge because the dissemination of information and education about stunting is not evenly distributed so awareness of nutrition management to prevent stunting is still low. This study aims to analyze and explain telehealth as e-parenting with the Family Centered-Care approach as an effective intervention in preventing stunting in the era of society 5.0.

Method: The method in this study is to use a literature review. Articles are obtained through search sites such as Google Scholar, Science Direct, Scopus, NCBI, and ProQuest as well as books that are relevant to the topic. The criteria used in searching in Indonesian and English with the publication year range of 2018-2022 for journals then carried out analysis and synthesis using the PRISMA method.

Results: The effectiveness of interventions provided via telehealth with a Family Centered-Care approach is oriented towards client resources at home, but remains under the supervision of health workers. This intervention significantly impacts lifestyle changes including physical activity, health education, and nutrition management.

Conclusion: Telehealth can be a new alternative in the era of society 5.0 as an effort to cut time and mobilize more efficiently so that understanding and dissemination of information is wider and more equitable so that stunting can be prevented at an early age.

Keywords: Family Centered-care; Nutrition Management; Parenting; Stunting; Telehealth

ABSTRAK

Pendahuluan: Stunting merupakan masalah gizi buruk, infeksi berulang, dan stimulasi psikososial tidak memadai yang menyebabkan gangguan tumbuh kembang anak. Buruknya manajemen nutrisi pada anak usia emas masih menjadi permasalahan di berbagai negara, termasuk di Indonesia. Upaya manajemen menjadi sebuah tantangan karena penyampaian informasi dan edukasi mengenai stunting yang belum merata sehingga kepedulian akan manajemen nutrisi untuk mencegah stunting masih rendah. Penelitian ini bertujuan untuk dapat menganalisis dan menjelaskan mengenai telehealth sebagai e-parenting dengan pendekatan Family Centered-Care sebagai intervensi yang efektif dalam mencegah stunting di era society 5.0.

Metode: Metode dalam penelitian ini yaitu menggunakan literature review. Artikel didapatkan melalui situs pencarian seperti Google Scholar, Science Direct, Scopus, NCBI, dan ProQuest serta buku-buku yang relevan dengan topik. Kriteria yang digunakan dalam pencarian berbahasa Indonesia dan berbahasa Inggris dengan rentang tahun publikasi tahun 2018-2022 untuk jurnal lalu melakukan analisis dan sintesis dengan menggunakan metode PRISMA.



Hasil: Efektivitas intervensi yang diberikan melalui telehealth dengan pendekatan Family Centered-Care berorientasi pada sumber daya klien di rumah, tetapi tetap dalam pengawasan tenaga kesehatan. Intervensi ini memiliki pengaruh yang signifikan terhadap perubahan gaya hidup termasuk aktivitas fisik, pendidikan kesehatan, dan manajemen nutrisi.

Kesimpulan: Telehealth dapat menjadi alternatif baru di era society 5.0 sebagai upaya untuk memangkas waktu dan melakukan mobilisasi secara lebih efisien agar pemahaman dan penyampaian informasi lebih luas dan merata sehingga stunting dapat dicegah sejak dini.

Kata kunci: Family Centered Care; Manajemen Nutrisi; Parenting; Stunting; Telehealth

BACKGROUND

Stunting is a chronic health problem due to malnutrition for a long period of time which is permanent, so the only way to be done is early prevention.¹ WHO makes stunting the focus of the Global Nutrition Targets for 2025 and the 2030 Sustainable Development Goals (SDGs), so stunting prevention efforts are very important for the sustainability of quality Indonesian human resources.² Stunting is influenced by poor nutritional intake so nutritional imbalances that occur are not optimal for child growth and development.³ One of the problems that are of concern to sufferers, families, health workers, and even the government is how to ensure that an understanding of stunting can be conveyed evenly to the community so that stunting can be carried out early on.⁴

The prevalence of stunting globally is in the range of 171 million to 214 million, of which 90% is found on the African and Asian continents.¹ Indonesia itself ranks 5th in the world for the most stunting. The number of stunting in Indonesia in 2021 will reach more than 1.3 million, of which West Java Province is the largest contributor, with more than 264 thousand stunting cases. WHO sets the standard for stunting, which is 20% or 1/5 of the total number of children under five. In 2019 the proportion of stunting in Indonesia exceeded the WHO limit of 27.7%.⁵ The government has implemented a stunting prevention and termination support program.

One of the programs to support stunting prevention is by optimizing the role of posyandu through community partnership programs.⁶ However, these efforts have not been maximized, in line with the development of society's technological era 5.0, the use of technology must be maximized to get a broad reach, efficient time, low cost, and maximum results. In evaluation of breaking the chain of work, it is recommended to increase functional capacity by prioritizing prevention from an early age through increasing knowledge management and understanding of

telehealth-based stunting families.⁷ This is evaluated to consider the size of the health financing deficit that must be issued by individuals and the government to eradicate stunting.

Development of interventions through the application of Family Centered-Care (FCC) theory on telehealth can affect the increase in knowledge related to stunting and prevention with the highest quality but with the lowest cost, time, and mobilization. Based on this, researchers conducted a literature study to find out how effective the implementation of FCC in telehealth is as an effort to optimize nutrition at the golden age through telehealth-based parenting.

METHOD

The method in writing this scientific paper is a literature study that is in accordance with the topic that is used as a reference for discussion. Articles are obtained through search sites such as Google Scholar, Science Direct, Scopus, NCBI, and ProQuest as well as books relevant to the topic. The literature used is articles obtained from electronic media through the keywords Family Centered-care, Nutrition Management, Parenting, Stunting, and Telehealth.

Eligibility Criteria

The criteria used in the search are Indonesian and English with the year of publication from 2018 to 2022 for journals and 2012-2022 for textbooks. The literature collected according to the criteria will be analyzed and synthesized by categorizing it into problem analysis and potential problem solving until ideas emerge based on scientific evidence and supported by previous research. Using the PICO method as an effort to determine the articles to be analyzed.



Table 1 PICO Analysis

Analysis	Contents
Problem/Population	Nutritional problems in children
Intervention	Family Centered-Care
Comparison	Health electronics
Outcome	Decrease the incidence of stunting and improve nutrition

The Family Centered Care theory not involving health workers, especially nurses (n=8). Research articles included in the main journal analysis (n=6). Selecting articles using the PRISMA diagram, 6 articles were obtained which were analyzed in Table 2 Analysis article.

RESULT

Data Selection

Potential and relevant articles based on identification from electronic databases (n=1,053) were Google Scholar (n=489), Science Direct (n=87), Scopus (n=109), NCBI (n=203) and ProQuest (n= 165). Duplicate records removed (n=650). Deletion of articles that do not match keywords and abstracts (n=219). Articles are not very relevant to the inclusion and exclusion criteria (n=134). Full-text articles were checked for eligibility and analyzed (n=50). Full-text articles are excluded for several reasons, including; 1) Not relevant to the problem of stunting (n=36), and 2)

DISCUSSION

The Effectiveness of Using Telehealth to Minimize Stunting Rates

Recent technological developments have spread to various sectors, one of which is the world of health. The contribution of technology in the world of health makes health services more efficient and maximum.⁸ In the era of globalization such as now, technological developments are growing faster until they enter the era of society 5.0, this can be an opportunity to develop internet connectivity and applications according to public health needs.

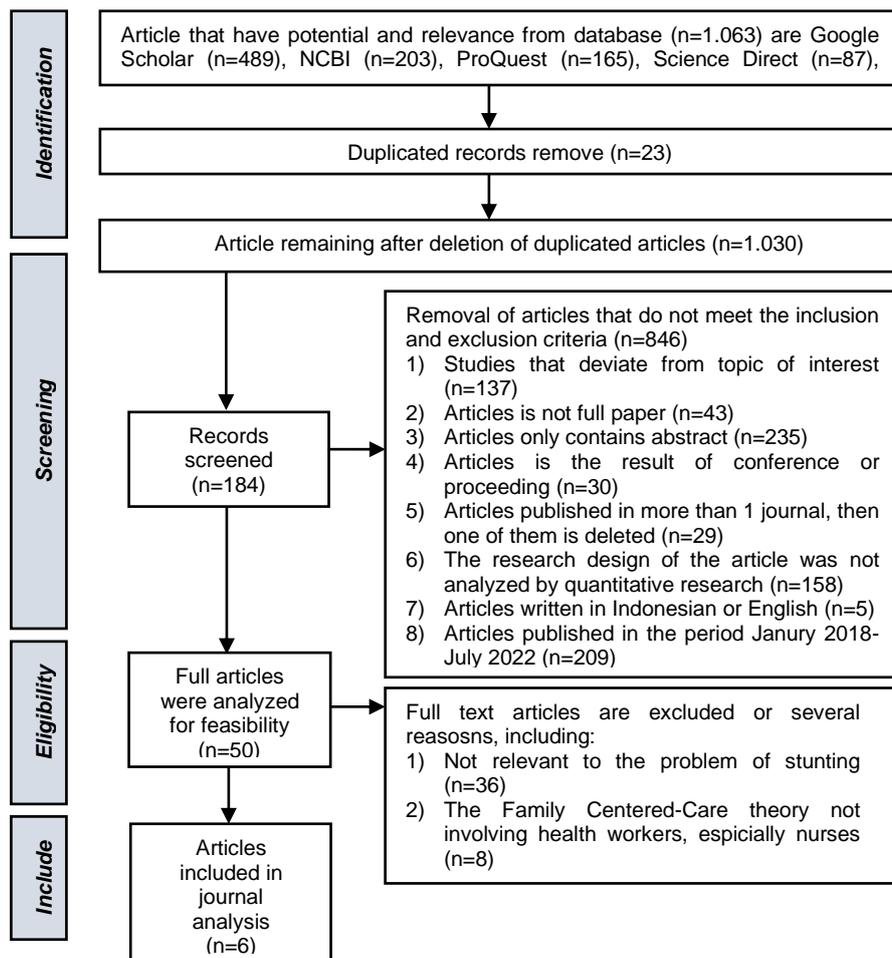


Figure 1 PRISMA Diagram



Table 2 Analysis Articles

Name	Title	Method	Result
Rahayu et al. (2021)	Description of Mother's Knowledge Level About Stunting in Toddlers in Kedawung Village, Susukan District, Banjarnegara Regency	Quantitative	Mother's knowledge of child stunting reached 46.7%. This level of knowledge is moderate, many mothers say that getting information about stunting is mostly through electronic media.
Tanaem et al. (2019)	Family Centered Care In Pediatric Care at Soe Timor Tengah Selatan Hospital	Quantitative	Nurses involve families in meeting children's basic needs only verbally, language and family initiatives are inhibiting factors for implementing FCC.
Yugistiyowati et al. (2018)	Nurses' Knowledge About Family Centered Care With Attitude In Providing Nursing Care in Children's Inpatient Rooms	Quantitative	Provide nursing care to get a high satisfaction score from the respondent's parents.
Yusuf et al. (2022)	Performance Optimization of Nursing Management Information System Based On The Fishing Application (Stunting Monitoring Information System) To Increase The Effectiveness Of Child Nutritional Health In Primary Health Services	Quantitative	SI PANTING application (Stunting Monitoring Information System) to increase the effectiveness of the nutritional health status of children in primary health services. This application serves to provide various kinds of information such as medical history, general information on stunting health, records of health developments, monitoring of stunting data, and general information on health services.
Norcahyanti et al. (2019)	Prevention Stunting with Role Optimization Posyandu Via Partnership Program Public	Quantitative	Programs that support specific nutrition interventions and sensitive nutrition can be well received by the target, this can be proven by increasing the knowledge and experience of cadres and posyandu members.
Resmiati et al. (2021)	The Effectiveness of Android-Based Adolescent Nutrition Education Applications for Stunting Prevention	Quantitative	An android-based stunting education application called the EduStunting Application and the results of its effectiveness test on adolescents. The EduStunting android application can improve adolescent knowledge and attitudes towards stunting and related factors (balanced nutrition and anemia).

This is supported by the growth of internet users in Indonesia which has increased to 171.17 million, which means the number of Internet users are 64.8% of the total population of Indonesia.⁹ This condition must be maximized to support the reduction of stunting.

The application of SI PANTING was effective in supporting the reduction in the incidence of stunting in children under five. The SI PANTING application is an application that increases the effectiveness of the nutritional health status of children at the puskesmas. This application has many supporting information features such as medical history, general information on stunting health, records of health developments, monitoring of stunting data, and general information on health services.⁹

Utilization of Family Centered Care in the Development of Stunting Prevention Application

FCC can provide a service with good quality because it is based on a feeling of mutual trust,

optimizing collaboration which includes the patient's family while still payi-

ng attention to a bio, psycho, socio, and spiritual aspects.¹⁰ Family and parents are an integral part of this concept, because the existence of family and parents is considered as a partner for a nurse in meeting all the needs of children in family-centered nursing care. In addition, the family and parents involved are an important source of strength for children in fulfilling their needs, both psychosocially and in their physical development.¹¹

FCC can be illustrated as a form of approach in the selection of child health care. The concept of FCC are; (1) Partnering with family and children's parents, (2) Making action plans in collaboration with parents and child, (3) Increasing understanding the power of the family for children, (4) Sources of health services and health personnel involved and used efficiently.¹²

Potential Development of Family Centered Care-Based Telehealth as a Form of Optimizing Nutrition for Golden Age Children



The government and the community have made several programs to overcome global problems to date, starting from the use of information technology and knowledge to immediately overcome existing problems, examples of the efforts that have been made in terms of information technology such as making applications for nutrition management and reporting on cases stunting. Stunting prevention was carried out by optimizing the role of posyandu through empowering cadres. This is a driving force in the realization of other application developments that can involve families as a form of collaboration with nurses and families in overcoming stunting in the community.¹³

In developing applications based on Family Centered care through the use of Android application that can be a medium for distributing information to families, especially mothers who have children under five to prevent stunting.¹⁴ This can also be based on the lack of knowledge of mothers about stunting was still in the moderate range, namely 46.7%, most mothers said that they got information about health through electronic media.¹⁵

The application development that will be carried out will integrate FCC in three menus, namely education, reinforcement, and smart goals. Therefore, we initiated an application with more complete features when compared to the previous more complete features, namely complementing in terms of promotive, preventive, and rehabilitative and using the concept of FCC, so that it is expected to create comprehensive health services and holistic.

Family Centered Care Application Development Concept

The application that will be developed brings the concept of telehealth in collaboration with puskesmas and community health service cadres such as posyandu in the implementation process. Stunting problems that became the beginning of the application will be resolved through intervention in the application that includes promotive, preventive, and rehabilitative efforts. This application carries the concept of e-parenting which is integrated with FCC so that it focuses on collaboration between application parties consisting of health workers and cadres with families. In accordance with the FCC concept, the application emphasizes the belief that optimal client health outcomes are achieved from nursing involving the family through the e-parenting system.

CONCLUSION

Based on the results of the evaluation above regarding the lack of concern for children's nutrition, low knowledge, minimal information, and poor nutrition management that leads to high stunting rates, suggesting an intervention that includes the resolution of all these problems. The use of technology in health services comprehensively and holistically is very much needed in this problem. Application development based on FCC can provide various nursing interventions which include promotive, preventive, and rehabilitative efforts.

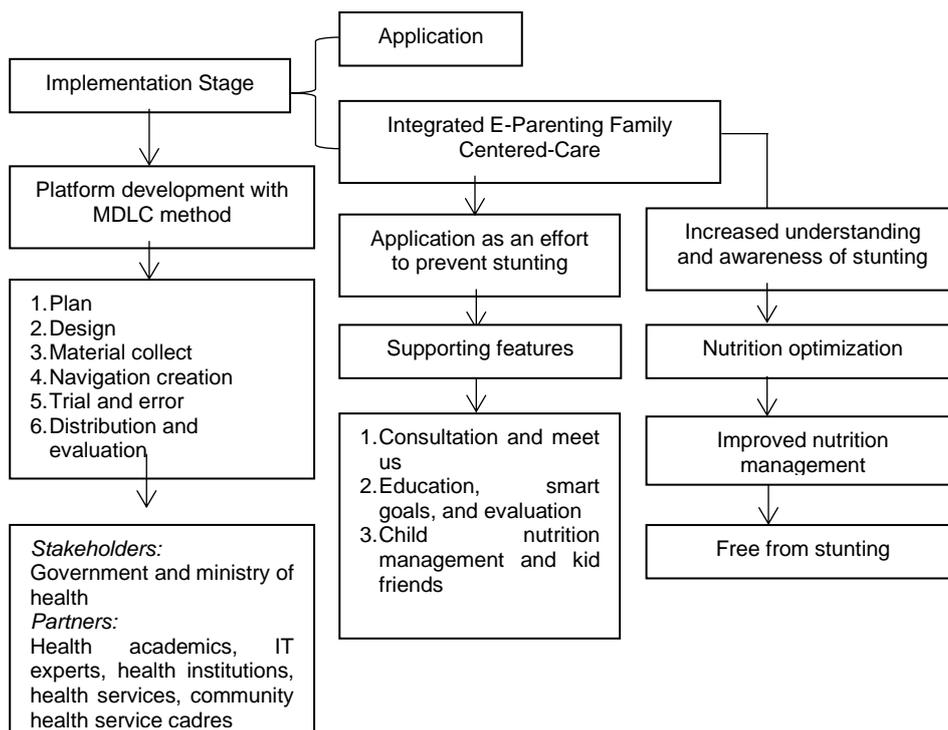




Figure 2 Concept of Application Development

This application is integrated with the Internet of things (IoT) with a display that is easy to understand for users in accordance with the objectives of technology development in the era of society 5.0. The expected final outcome is through the use of this application development.

SUGGESTION

Research and education institutions in collaboration with hospitals are recommended to be further research and developing an effort to optimize nutrition in golden-age children. We also hope that government and private institutions can support this application to be implemented by providing funding so that the research can be completed until the final stage. So that later this idea can be developed and implemented by health workers and the wider community.

REFERENCES

1. Efendy MP, Setiawan D, Abdurrab U. Perancangan Aplikasi Makanan Empat Sehat Lima Sempurna. 2021;5(1):13–9.
2. Sutarto, Mayasari D, Indriani R. Stunting, Faktor Resiko dan Pencegahannya. *J Agromedicine*. 2018;5(1):540–5.
3. Black RE, Heidkamp R. Causes of Stunting and Preventive Dietary Interventions in Pregnancy and Early Childhood. *Nestle Nutr Inst Workshop Ser* [Internet]. 2018 [cited 2022 Mar 7];89:105–13. Available from: <https://pubmed.ncbi.nlm.nih.gov/29991036/>
4. Maria I, Nurjannah N, Usman S. Analysis Of Stunting Determinants Based On Geographic Areas In Indonesia In 2018 Abstract Pendahuluan Stunting merupakan permasalahan global dan diperkirakan sejumlah 14. 2020;7(4):239–50.
5. Anggryni M, Mardiah W, Hermayanti Y, Rakhmawati W, Graha G. Faktor Pemberian Nutrisi Masa Golden Age dengan Kejadian Stunting pada Balita di Negara Berkembang. 2021;5(2):1764–76.
6. Norcahyanti I, Pratama ANW, Pratoko DK. Upaya Pencegahan Stunting dengan Optimalisasi Peran Posyandu Melalui Program Kemitraan Masyarakat. *Dedication J Pengabdian Masy*. 2019;3(2):73–80.
7. Roediger R, Taylor Hendrixson D, Manary MJ. A roadmap to reduce stunting. *Am J Clin Nutr* [Internet]. 2020 Jul 21 [cited 2022 Mar 7];112(Suppl 2):773S. Available from: [/pmc/articles/PMC7487425/](https://pubmed.ncbi.nlm.nih.gov/3487425/)
8. Mudawamah NS. Perilaku Pengguna Internet: Studi Kasus Pada Mahasiswa Jurusan Perpustakaan Dan Ilmu Informasi Uin Maulana Malik Ibrahim. *J Kaji Perpust dan Inf*. 2020;Vol. 4 No.(1):107–13.
9. Yusuf M, Negara CK. Performance Optimization Of Nursing Management Information System Based on The Fishing Application (Stunting Monitoring Information System) to Increase The Effectiveness of Child Nutritional Health in Primary Health Services. *J Technol Inform*. 2022;1(1).
10. Yugistiyowati A, Santoso S. Pengetahuan Perawat Tentang Family-Centered Care Dengan Sikap Dalam Pemberian Asuhan Keperawatan di Ruang Rawat Inap Anak. *J Keperawatan Respati Yogyakarta* [Internet]. 2018;5(1):39. Available from: <http://nursingjurnal.respati.ac.id/index.php/JKRY/index>
11. Akbar F, Ambohamzah I, Muhajir AM. Strategi Menurunkan Pravelensi Gizi Kurang pada Balita. *J Media Keperawatan Politek Kesehat Makassar*. 2019;10(2):85–91.
12. Terp K, Weis J, Lundqvist P. Parents ' Views of Family-Centered Care at a Pediatric Intensive Care Unit — A Qualitative Study. 2021;9(August):1–9.
13. Tanaem GH, Dary M, Istiarti E. Family Centered Care Pada Perawatan Anak Di Rsd Soe Timor Tengah Selatan. *J Ris Kesehat*. 2019;8(1):21.
14. Ernaningsih Z, Purnamawati MMD, ... Pembuatan Aplikasi “Woro-Woro” Untuk UBKM Posyandu Notoyudan. *Ikra-lth* 2022;5(44):82–8.
15. Fitrotuzzaqiyah I, Rahayu S. Implementasi Intervensi Spesifik Dalam Upaya Pencegahan Stunting Balita Di Desa Gambarsari Kecamatan Pagaden Kabupaten Subang. *J Nutr Coll*. 2022;11(3):236–47.