Journal of Islamic Philanthropy & Social Finance (JIPSF)
Vol 6(2), 2024
eISSN: 2590-3942
Published by UiTM Press
Managed by Center for Islamic Philanthropy & Social Finance
Journal homepage: http://www.cipsf.my/#
https://journal.uitm.edu.my/ojs/index.php/JIPSF

THE ROLE OF ZAKAT INSTITUTIONS IN ACCELERATING STUNTING REDUCTION IN INDONESIA, A LESSON LEARN FROM THE DOMPET DHUAFA NUTRITION POST PROGRAM

Yeni Purnamasari[a*], Sifing Lestari[b], Hafidzoh[c], Uswatun Hasanah[d]

[a]Yeni Purnamasari, Graduate Master of Public Health University of Indonesia, Dompet Dhuafa Jakarta, Email: yeni@dompetdhuafa.org
[b]Sifing Lestari, Graduate Faculty of Nursing University of Indonesia, Dompet Dhuafa Jakarta, Email: sifing@dompetdhuafa.org
[c]Hafidzoh, Graduate Public Health Muhamadiyah University Jakarta, Dompet Dhuafa Jakarta, Email: evi@dompetdhuafa.org
[d]Uswatun Hasanah, Graduate Magister of Epidemiology University of Indonesia, Pamulang University Jakarta, Email: uswatun.stikeswdh@gmail.com
Philanthropy Buliding, Philanthropy Building, Jl. Warung Jati Barat No.14, Jati Padang, Ps. Minggu, Kota Jakarta Selatan, Daerah Khusus Ibukota Jakarta 12540
**Corresponding author*

Article info

Received:
23/02/2024
Received in Revised Form:
30/04/2024
Accepted:
06/05/2024
Published:
25/09/2024

Keywords:
Malnutrition;
Philanthropy;
Positive defiance
Stunting;
Zakat Empowerment;

DOI:
10.24191/JIPSF/v6n22024_8-16

Abstract

Indonesia faces a double burden in nutrition problems, especially nutrition in children. Data from the 2022 Indonesian Nutritional Status Survey (SSGI) provides an overview of the nutritional status of toddlers with the stunting rate decreasing from 24.4% to 21.6% (www.kemkes.go.id). The reduction in stunting rate remains below WHO criteria of 20%. President Joko Widodo targets the percentage of stunting prevalence in Indonesia to reach 14% by 2024. The problem of stunting is a multidimensional problem, so it requires the participation of many parties including zakat or philanthropic institutions that can fill the gap in efforts to alleviate specific and sensitive nutrition. Dompet Dhuafa has implemented zakat empowerment with the Nutrition Post program with a positive deviance adaptive approach that adopts a community empowerment effort approach for positive behavior change with the active involvement of local governments, health offices, community health centers, health mobilizers, healthy cadres, and the community itself. This program aims to restore the nutritional status of children under two years old with wasting and underweight problems that affect the incidence of stunting. In 2022, the Nutrition Post program was implemented at 11 points in 8 provinces of the Dompet Dhuafa Free Health Service (LKC) working area in Indonesia with 4 mentoring models for feeding behaviour, childcare, environmental and personal hygiene, and seeking health services. The research method was carried out quantitatively and the data was presented descriptively. a total of 250 toddlers experiencing malnutrition and underweight, it was discovered that after intervention through Nutrition Post , toddlers experienced a weight gain of 208 (83%), but not a (fixed) weight gain of 30 (12%), and 12 (5%) toddlers experienced weight loss. The Nutrition Post program with a positive deviance adaptive approach is one of the efforts to participate in zakat institutions or philanthropic institutions to make sustainable efforts in accelerating stunting reduction in Indonesia.

INTRODUCTION

Improving the quality of resources (HR) is critical to progress in the health sector (Ministry of Health of the Republic of Indonesia, 2021). To lower stunting rates and generate excellent human resources, increasing superior human resources must be supported by balanced nutritional intake from the womb. According to the 2019 Indonesian Toddler Nutritional Status Study (SSGBI), the prevalence of stunting remained at 27.7%. According to World Bank data for 2020, Indonesia ranked 115th out of 151 nations in the world in terms of stunting prevalence. Data from the 2022 Indonesian Nutritional Status Survey (SSGI) provides an overview of the nutritional status of toddlers with the stunting rate decreasing from 24.4% to 21.6% (www.kemkes.go.id). The reduction in stunting rate remains below WHO criteria of 20%. President Joko Widodo targets the percentage of stunting prevalence in Indonesia to reach 14% by 2024. According to 2017 nutritional status monitoring data, the prevalence of stunting in West Java Province was 29.2%. In Garut Regency, there was a 24.9% growth from 2016 to 43.2% in 2017 (Riskesdas, Kemenkes RI, 2018)

Undernutrition is a severe public health concern in Indonesia. Malnutrition is caused by the body's failure to satisfy nutritional demands, which can have a negative impact on both physical and mental health (CORE, 2003). One of the nutritional concerns that persists in Indonesia is the problem of underweight and very underweight, which is linked to Protein Energy Deficiency (PEM). Malnutrition is a common problem in children under the age of five, who are the age group most vulnerable to nutritional and disease vulnerabilities (Dahlia, 2012). Standard indicators of body weight according to age (WW/U) can be used to assess nutritional status categorization at the age of five in recognizing malnutrition. Aside from that, you may look at the z-score value, which is based on WHO 2005 standard anthropometric values for toddlers (Kemenkes RI, 2013).

Toddlers diagnosed with stunting will have specific persistent poor health problems, which can be deadly if left untreated. In short term, they will have detrimental influence on brain development, intellect, physical growth issues, and metabolic diseases in the body (Adistie et al., 2018). In long term stage of their life, the increase risk of illness and mortality associated with stunting, as well as the catastrophic consequences that threaten the stunted generation, require special attention (UNICEF, 2021; WHO, 2010; Hendrawati, 2018). According to UNICEF (1998), factors that contribute to malnutrition include direct causes such as children's food consumption and infectious diseases that children may contract, as well as indirect causes such as food security in the family, parenting patterns, ability to access health services, and environmental health.

In term of parenting styles, Aramico and friends (2013) conclude that an inadequate of parenting process will put children in a bigger risk of stunting compared to the adequate one.

Aim to all above, stunting is a result of multidimensional problems which happened after long and chronic unfavorable situations. Thus, it requires comprehensive approach, to prevent participation of many parties including zakat or philanthropic institutions that can fill the gap in efforts to alleviate specific and sensitive nutrition.

Dompet Dhuafa has implemented zakat empowerment with the Nutrition Post program with a positive deviance adaptive approach that adopts a community empowerment effort approach for positive behavior change with the active involvement of local governments, health offices, community health centers, health mobilizers, healthy cadres, and the community itself. This program aims to restore the nutritional status of children under two years old with wasting and underweight problems that affect the incidence of stunting.

Dompet Dhuafa is making efforts through community empowerment, specifically by establishing Dompet Dhuafa Hearth Posts implemented at 9 assisted points of LKC Dompet Dhuafa, namely Aceh, Banten, Jakarta, West Java, Central Java, Yogyakarta, South Sulawesi, NTB, and NTT. The site was chosen based on nutritional status measurements that were yet unavailable (SSGI Data, 2021). The data is then evaluated by completing an evaluation with the Local Health Service and collecting data on the month of weighing in each region.

METHODOLOGY

The method used in this research employs a mixed-method approach with exploratory research. The research begins with a quantitative phase using a quasi-experimental design with a one-group pre-test post-test approach, where the pre-test is conducted before the nutritional intervention and the post-test is done after the nutritional intervention without using a control group. Data collection in this research consists of two types: primary data and secondary data. Primary data is collected by the researcher through anthropometric measurements of toddlers, questionnaire distribution, and interviews with mothers/caregivers aimed at assessing feeding practices, childcare behaviours, hygiene practices, and healthcare practices. Secondary data in this research are obtained from health centres in the form of weighing results at integrated health posts

Data analysis in this study includes univariate and bivariate analysis. Univariate analysis is conducted to understand the frequency distribution of respondents concerning both dependent and independent variables. Univariate analysis involves frequency distribution, including immunization history, disease risk, toddler's weight, and smoking habits. Bivariate analysis employs the Wilcoxon test to observe weight gain before and after the nutritional intervention over 12 days. Days 1 to 6 are conducted at the Nutrition Post, while days 7 to 11 are conducted at participants' homes, with home visits by community health workers.

The target of this research is toddlers with inclusion criteria of nutritional status (stunting, underweight, wasting) and without accompanying diseases (infectious diseases), with a maximum of 15 children in each nutritional post group. There are three stages: preparation, implementation, and follow-up activities. The first stage, preparation, involves assessment, socialization, health screening, perception alignment, cadre training, and conducting mini workshops with facilitators, cadres, and nutritional post officials, preparing Positive Deviance (PD) investigations, and disseminating findings to the community. The second stage is the implementation stage, which involves collecting equipment and organizing daily Nutrition Post activities. The third stage involves follow-up monitoring activities conducted by cadres and health workers at the integrated health posts. Final weighing by cadres and in-depth interviews (post-tests) by cadres are conducted to observe four caregiver behaviours (feeding practices, childcare behaviours, hygiene practices, healthcare practices.

Figure1: Sample Determination Flow

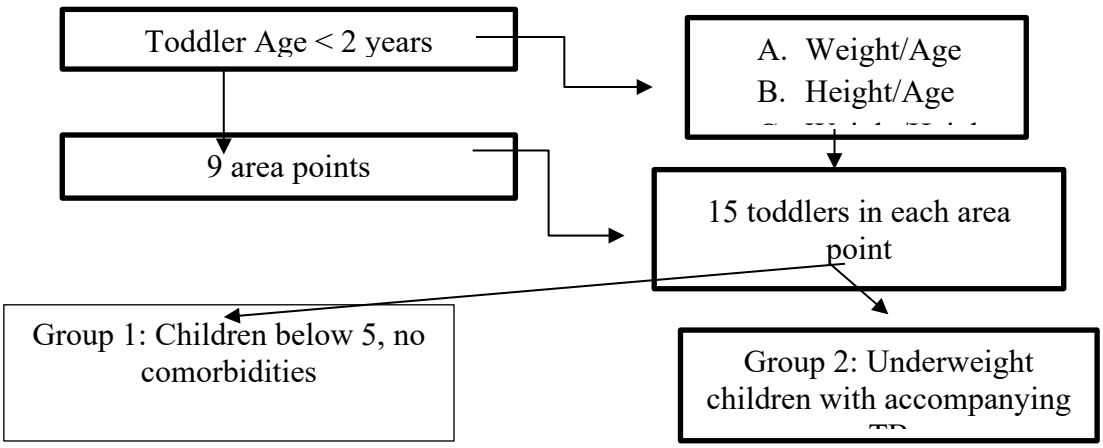
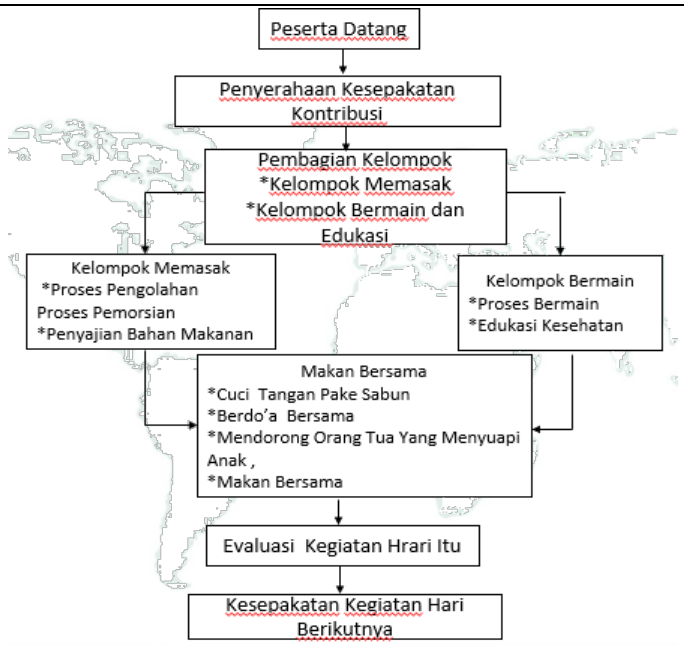


Figure 2: Flow of Nutrition Post Activities



1. Kedatangan Peserta 2. Pemberian Kesepakatan Kontribusi 3. Pembagian Kelompok: 4. Kelompok Memasak 5. Kelompok Bermain dan Edukasi 6. Kelompok Memasak: 7. Proses Pengolahan 8. Proses Pemorsian 9. Penyajian Bahan Makanan 10. Kelompok Bermain 11. Proses Bermain 12. Edukasi Kesehatan 13. Makan Bersama 14. Cuci Tangan Pakai Sabun 15. Berdoa Bersama 16. Mendorong Orangtua untuk Menyuapi Anak 17. Makan Bersama 18. Evaluasi Kegiatan Hari Itu 19. Kesepakatan Kegiatan Hari Berikutnya	1. Arrival of Participants 2. Provision of Contribution Agreement 3. Group Division: 4. Cooking Group 5. Play and Education Groups 6. Cooking Group: 7. Processing 8. Portioning Process 9. Food Serving 10. Playgroup 11. Playing Process 12. Health Education 13. Eating together 14. Wash Hands with Soap 15. Pray Together 16. Encouraging Parents to Feed Children 17. Eating together 18. Evaluate the Day's Activities 19. Next Day Activity Agreement

RESULTS AND DISCUSSION

Findings

Univariate

1. Pre-Intervention Toddler Health Screening

Table 1. Based on Screening Type

Region	Complete Immunization History	Incomplete Immunization	Total
LKC Aceh	0	24	24
LKC Banten	19	1	20
LKC Jakarta	23	2	25
LKC Purwokerto	26	0	26
LKC Yogyakarta	30	5	35
LKC NTT	49	7	56
LKC NTB	18	8	26
LKC South Sulawesi	29	7	36
Total	194	54	248

Table 2. Based on Disease Risk

Region	No risk of disease	Risk of TB disease	Risk of ARI disease	Total
LKC Aceh	8	6	10	24
LKC Banten	18	2	0	20
LKC Jakarta	13	2	7	25
LKC Purwokerto	9	6	11	26
LKC Yogyakarta	29	0	5	34
LKC NTT	25	14	17	56
LKC NTB	11	9	6	26
LKC Sulawesi Selatan	25	4	10	39
Total	138	46	66	250

Table 3. Based on Screening Type

Wilayah	Normal Weight	Low Weight	Very Low Weight	Total
LKC Aceh	8	6	10	24
LKC Banten	18	2	0	20
LKC Jakarta	13	2	7	25
LKC Purwokerto	9	6	11	26
LKC Yogyakarta	29	0	5	34
LKC NTT	25	14	17	56
LKC NTB	11	9	6	26
LKC South Sulawesi	25	4	10	39
Total	138	43	66	250

Table 4. Based on Smoking habits of Parents (father)

Wilayah	Smoking	Total
LKC Aceh	20	20
LKC Banten	17	17
LKC Jakarta	25	25
LKC Purwokerto	21	21
LKC Yogyakarta	29	29
LKC NTT	52	52
LKC NTB	19	19
LKC South Sulawesi	34	34
Total	217	217

2. Nutrition Post Post Intervention

Table 5 Toddler's Weight Gain on Day 12

Region	Weight Gain	Weighted Maintained	Weight Loss	Total
LKC Aceh	23	1	0	24
LKC Banten	18	1	1	20
LKC Jakarta	24	1	0	25
LKC purwokorto	26	0	0	26
LKC jogyakarta	32	2	0	34
LKC NTT	35	14	7	56
LKC NTB	20	4	2	26
LKC Sulawesi Selatan	30	7	2	39
Total	208	30	12	250

DISCUSSION

Pre-Intervention Screening Results

Screening is a health check that determines whether a person is at a higher risk of developing a health concern. In this study, screening activities included anthropometric measures, health condition questionnaires, and child TB tests (child TB score) for a total of 250 toddlers. The FGD was then separated into two groups, caregivers of mothers with toddlers and the general public. The PDI (Positive Deviance Investigation) was conducted to seek for unusual (positive) behavior that may serve as an example to the participants. Following that, hold an MMD (Village village Conference) to seek consent and commitment from the whole village to support the Nutrition Post initiative.

The screening findings in this study were a summary of the weighing for the month The findings revealed that 250 children were tested in eight LKC Dompet Dhuafa Nutrition Post support zones. The screening findings from 248 toddlers revealed a history of 194 complete and 54 incomplete vaccines. According to the risk of illness, 138 of the 250 toddlers had no risk of disease, 46 had a risk of TB disease, and 66 had a risk of ARI. It was also discovered that 217 family members smoked.

The goal of nutritional screening in this study is to recover malnourished children detected in the community, to enable families to independently maintain the nutritional condition of children in their own homes, and to avoid childhood malnutrition. The first step in creating a nutrition program is to conduct a nutrition assessment or research. This stage is a methodical phase that aims to collect, verify, and evaluate the data required to identify nutrition-related problems, their causes, and consequences.

Stunting is the result of nutritional issues. Stunting is a growth and development problem that children endure as a result of poor nutrition, recurring illnesses, and a lack of psychosocial stimulation (World Health Organization, 2015). Stunting causes may be divided into two categories: direct and indirect causes. Children's consumption habits, as well as viral infections, are direct causative variables that influence children's nutritional health and can have an impact on stunting. Meanwhile, indirect reasons include food access and availability, as well as sanitation and environmental health (Rosha et al., 2020).

The study conducted by Ridho Nugroho et al., 2021, on the factors influencing the incidence of stunting in early childhood in Indonesia found that factors such as energy intake, birth weight, maternal education level, family income level, childcare practices, and dietary diversity are significantly related to the occurrence of stunting.

Post Intervention Result

Table 5 Toddler's Weight Gain on Day 12

Region	Weight Gain	Weighted Maintained	Weight Loss	Total
LKC Aceh	23	1	0	24
LKC Banten	18	1	1	20
LKC Jakarta	24	1	0	25
LKC purwokorto	26	0	0	26
LKC jogyakarta	32	2	0	34
LKC NTT	35	14	7	56
LKC NTB	20	4	2	26
LKC Sulawesi Selatan	30	7	2	39
Total	208	30	12	250

According to Table 5 above, the results of the Nutrition Post activities revealed that the majority of the 8 points spread out over the LKC Nutrition Post regions suffered considerable weight increase in the form of anthropometric measures. LKC Aceh had a rise of 23 out of 24 participants, LKC Banten saw an increase of 18 out of 20 participants, and LKC Jakarta saw an increase of 24 out of 25 participants. LKC Purwekorto had a 100% gain in BB, while LKC Yogyakarta saw a 32-percentage-point increase. Of the 56 LKC NTT participants, 35 reported weight increase; of the 26 LKC NTB participants, 20 experienced a gain in weight; and of the 39 South Sulawesi LKC participants, 30 experienced increased weight. So, based on the data from eight regions and a total of 250 toddlers experiencing malnutrition and underweight, it was discovered that after intervention through Nutrition Post , toddlers experienced a weight gain of 208 (83%), but not a (fixed) weight gain of 30 (12%), and 12 (5%) toddlers experienced weight loss.

Nutrition Post activities include assessment, outreach, health screening, shared perceptions, cadre training, conducting mini workshops. Carried out together with facilitators, cadres, and Nutrition Post administrators, preparing Positive Deviance (PD) investigations and carrying out follow-up monitoring activities carried out by cadres and health workers at Integrated Service Posts have a very significant impact related to nutrition in toddlers.

There was a 200-600 gram rise in child weight as a consequence of the help provided by participants for 6 days at the Nutrition Post and the second 6 days in their separate homes with monitoring by cadres. However, numerous children whose weight stayed stable or even declined were discovered. These children were sent to the Community Health Center after re-screening revealed a risk of tuberculosis infection. Body weight is a simple anthropometric measurement that offers an overview of body mass (Yohanes Daci, 2018).

The Nutrition Post program is an innovative approach to overcome malnutrition in children (Elya Sugianti, 2017). Efforts can be taken to avoid nutritional disorders in toddlers by strengthening mother awareness, attitudes, and behavior. Mothers have appropriate nutrition knowledge and education to act and react in a way that promotes the attainment of goals, such as the importance of nutritional components for toddlers and the danger of malnutrition.

The Nutrition Post programs, which is aimed to promote improved nutritional status, expanded understanding, and encouraged changes in the behavior of toddler families for 12 days, seemed to improve the nutritional status of malnourished toddlers. The growth in body weight of toddlers based on body weight/age, participant activity, and enhanced family understanding were all

indicators of the program's effectiveness. The Nutrition Post program's presence is an ideal way to minimize the impact of nutritional problems on children.

CONCLUSION

Nutrition Post is a nutritional innovation that uses a method that allows for adjustments in excellent nutritional behavior to prevent stunting. This strategy has the potential to reduce the number of malnutrition cases. Malnutrition is typically caused by poor feeding habits or parenting styles. The Nutrition Post initiative aims to combat starvation by modifying behavior.

Nutrition Post had a big impact on child nutrition. The nutritional status of children who were followed and evaluated, both in the PD group and in the nutritional status group with associated disorders, underwent changes as a result of the Hearth activities carried out for 12 days. And, based on the caregiver's conduct, there were extremely substantial improvements in four areas of behavior: feeding behavior, childcare behavior, health care behavior, and cleaning behavior.

ACKNOWLEDGEMENT

The authors thank the anonymous reviewers for their helpful comments. We also appreciate the feedback provided by our colleagues during the preparation of this manuscript. This research did not receive any specific grants from any funding agency in the public, commercial, or not-for-profit sectors.

CONFLICT OF INTEREST

The authors affirm that there is no conflict of interest in this article.

AUTHOR CONTRIBUTION

All authors jointly contributed to the development of this paper. All authors also contributed to reviewing and refining the paper, providing intellectual and methodological input, and ensuring its academic rigor and clarity. All authors read and approved the final version of the

AI GENERATIVE DECLARATION

The author declares that generative AI tools were not used in the creation of this article, except for text paraphrasing and cross-checking references. The author assumes full responsibility for the accuracy, integrity, and final content of this work.

RESEARCH ETHICS STATEMENT

The author(s) declare that this study did not involve any human biological samples or data, or animal subjects. Consequently, formal ethics committee approval and informed consent were not required for this research.

DATA AVAILABILITY STATEMENT

The data supporting the findings of this study are available from the corresponding author upon reasonable request, subject to institutional and ethical requirements.

REFERENCES

Adistie, F., Lumbantobing, V. B. M., & Maryam, N. N. A. (2018). Pemberdayaan kader kesehatan dalam deteksi dini stunting dan stimulasi tumbuh kembang pada balita. *Media Karya Kesehatan*, 1(2).

Aramico and friends (2013) in Rahmadaniah., Sendi, S., Eddy, A & Muliadi, T. (2021). Risk Factor About Stunting Among Toddlers Aged 24-59 Months in Sabang City. J-Kesmas: *Jurnal Fakultas Kesehatan Masyarakat (The Indonesian Journal of Public Health)*, 8(1): 25-29.

Buku Saku Hasil Studi Status Gizi Indonesia (SSGI) 2021. By. Humas BKPK. (23 March, 2022)

Core, J. E., Guay, W. R., & Van Buskirk, A. (2003). Market valuations in the new economy: An investigation of what has changed. *Journal of Accounting and Economics*, *34*(1-3), 43-67.

Hendrawati, S. (2018). Pemberdayaan kader kesehatan dalam pencegahan dan penatalaksanaan stunting pada anak di wilayah kerja puskesmas jatinangor. Dharmakarya: *Jurnal Aplikasi Ipteks Untuk Masyarakat*, 7(4), 274-279.

Kemenkes, R. I. (2017). Peraturan Menteri Kesehatan Tentang Rencana Strategis Kementerian Kesehatan Tahun 2020-2024.

Ridho Nugroho et al. 2021. Factors Influencing the Incidence of Stunting in Early Childhood in Indonesia. *Journal of Obsession*. 2021: 2269-2276.

Riskesdas, Kemenkes RI (2018). *Profil Kesehatan Indonesia Tahun 2017*. Jakarta: Kementerian Kesehatan Republik Indonesia.

Rosha, B. C., Susilowati, A., Amaliah, N., & Permanasari, Y. (2020). Penyebab langsung dan tidak langsung stunting di lima kelurahan di Kecamatan Bogor Tengah, Kota Bogor (Study kualitatif kohor tumbuh kembang anak tahun 2019). *Buletin Penelitian Kesehatan*, *48*(3), 169-182.

UNICEF (2021). The state of food security and nutrition in the world 2021. Available at: https://www.fao.org/interactive/state-of-food-security-nutrition/2021/en/

World Health Organization (2015). Stunting in a nutshell. [online] Available at: World Health Organization (WHOa) The WHO Child Growth Standards (http://www.who.int/childgrowth/en/, (diakses 30 April 2021)

© 2024 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (http://creativecommons.org/licenses/by/4.0/).