# World Nutrition Journal | eISSN 2580-7013



## LITERATURE REVIEW

# Mother's coping strategies toward food insecurity during COVID-19 pandemic : a review article

Sherly Ardi Vantono<sup>1</sup>, Saptawati Bardosono<sup>2</sup>, Luh Ade Ari Wiradnyani<sup>3</sup>

<sup>1.</sup> Faculty of Medicine, Universitas Indonesia

<sup>2.</sup> Department of Nutrition, Faculty of Medicine, Universitas Indonesia, Cipto Mangunkusumo Hospital

<sup>3.</sup> Southeast Asian Ministers of Education Organization Regional Center for Food and Nutrition (SEAMEO RECFON)-Pusat Kajian Gizi Regional (PKGR) Universitas Indonesia

#### Abstract

The COVID-19 pandemic has impacted many aspects of the country, including the economy and health care. Food insecurity is increasing, causing harm to children's nutrition and development. As a result, mother must deal with food insecurity to providing a balanced diet for her children aged 6 to 23 months. This study aims to review the possible mother's coping strategies used toward food insecurity to maintain child nutrition during the COVID-19 pandemic. To review the literature, the researcher utilized search engine such as PubMed, ScienceDirect, Oxford journal, and British Medical Journal. "COVID-19", "Coping Strategies", "Food Security", and "Child" were among the keywords chosen by the researcher. After filtering with the several criteria, the 17 articles were reviewed. Based on this paper review, we know that during the COVID19 pandemic, there is a coping strategy that assist mother to maintain their child nutrition. To address the problem of food insecurity, the possible mother's coping strategy used are adaptive coping strategies such as home-cooked meals, financial support, and receiving food assistance.

Keywords: COVID-19, coping strategies, food security, child

http://www.worldnutrijourna Lorg/

#### Introduction

COVID-19, a worldwide pandemic has been spreading. The economy was impacted, resulting in employment losses across the country.<sup>1,2</sup> Furthermore, due to poor families, employment losses have exacerbated food insecurity.<sup>3</sup> According to the data, household food insecurity has increased by one-third since COVID-19 with 35.5% of food insecure households classed as newly food insecure.<sup>4</sup> The household food insecurity is a risk factor for malnutrition among all groups, especially children.<sup>5–7</sup> Furthermore, the 6-23 month period is the golden age of growth and development for children, as well as the time when they need to eat nutritious complementary foods in addition to breastmilk.<sup>8</sup> In Indonesia, infant and young child feeding/IYCF practices is not optimal, in which only 40% of children aged 6-23 months received foods meeting the criteria of the minimum acceptable diet based on the 2017 Indonesia Demographic and Health Survey Data.<sup>9,10</sup> These numbers can be worsened during the pandemic because the food insecurity is increasing.<sup>8,11</sup> In addition, food insecurity has been linked to several long-term

Received 24 June 2021 Accepted 4 January 2022 Published: 28 February 2022

Link to DOI: 10.25220/WNJ.V05.i2.0004

**Citation:** Vantono SA, Bardosono S, Wiradnyani LAA. Mother's coping strategies toward food insecurity during COVID-19 pandemic: a review article. World Nutrition Journal.2022 Feb 28, 5(2):18-22.



authors. This article is an open

access article distributed under

the terms and conditions of the Creative Commons Attribution

(CC BY) license (https:// creativecommons.org/licenses/b

y/4.0/).

Website

Corresponding author:

Sherly Ardi Vantono

Faculty of Medicine, Universitas Indonesia Email: <u>sherlyardivantono@gmail.com</u>



Figure. 1 Flow diagram of the article selection

health consequences, including an increased risk of chronic illness, cognitive and functional deficits, and depression in mothers.<sup>12</sup> As a result, the mother must deal with food insecurity during the pandemic with coping strategy. Coping strategy are not a unidimensional behavior but are attained by many behaviors, cognitions, and perceptions that form remedial actions undertaken by people with survival and livelihood are compromised or threatened.<sup>13,14</sup> It was practiced to increase the accessibility of food in their households to maintain the nutrition of the household member.<sup>15</sup> To the best our knowledge, there are few studies on mother's coping strategies in maintaining the adequate dietary intake of their children aged 6-23 months. The purpose of this paper is to conduct a review of the literature on the possible mother's coping strategies used toward food insecurity during the COVID-19 pandemic.

### Methods

PubMed, ScienceDirect, Oxford Journal, and BMJ (British Medical Journal) were among the search

engines utilized by the researcher. The keywords used in the article searching were the combinations of the terms including "COVID-19", "Coping Strategies", "Food Security", and "Child", The articles searching was carried out in two stage, that September 2020 - December 2020 and May -December 2021. In the first stage the researchers conducted a review of coping strategies toward food insecurity in general and during COVID-19, while in the second stage the researchers searched for updated article related COVID-19 context. The articles reviewed included in this study are those written in english, research articles, full text available, and eligible by critical appraisal.<sup>16</sup> Researchers have confirmed that no selected articles are doubled. The management of articles were conducted with named of each articles with order of author, year, and title of the article which saved in one folder on Zotero. Systematic review and retrospective studies with quantitative and qualitative study were included (Figure 1).

### Findings

A total 17 articles were reviewed by the researchers. Based on the literature review, people's coping strategy differ based on their location, community, social group, family, and cultural context. In addition, people's coping strategy are impacted by their past experiences. In Nansanga, Central Zambia, they were able to demonstrate, that socioeconomic differences influenced the coping strategy. For example, the low wealth class did seasonal jobs, the middle wealth class sold land to miners and trees, the high wealth class was selling alcohol and local brew.<sup>17</sup> Formal and informal work have influenced coping strategies in Sub-Saharan Africa. Food intake is lower in informally employed households, and coping strategy are used more frequently.<sup>18</sup> In the study that covering 62 countries such as Africa, Asia, Europe, Oceania and the Americas found that several reports highlighted that the financial impacts were tend to be higher for urban households than rural.<sup>11</sup> In Myanmar, people living in rural areas used loans more often than those living in urban.<sup>19</sup> In Bangladesh, people who live in rural areas were mild to moderate food insecure adopted either financial or both financial and food compromised coping strategies. But people who live in urban area with mild to moderate food insecure mostly applied both forms of coping strategies. Besides that, in severely food insecure household, most of them adopted both forms of coping strategies to survive.<sup>7</sup>

There are examples of household coping strategies such as farming, saving, loans, foraging of crisis food (roots, berries), sale of household assets, migration, sales of relief goods, child labor, prostitution, theft, violence.<sup>13</sup> Food insecure households in the United States have reported using coping strategy such as buying a limited variety of foods, relying on low-cost options, cooking in bulk, sharing food, shopping on promotions, using coupons, and making trade-offs between food and other family costs. They were also skipping meals at the end of the month.<sup>12</sup>

#### **Coping Strategy during Pandemic COVID-19**

During pandemic COVID-19, several studies found that coping strategies has differ by gender. Women have more financial impacts rather than men.<sup>11</sup> Several women have been laid off as a result of the COVID-19 pandemic. In Egypt, the fisher wives who having the children transient from housewifes into fish vendor while the fishermen tend to seek another gainful employment elsewhere.<sup>20</sup> Apart from that, in Indonesia, men began online marketing or adapted their motorcycles into motor taxis, even though their earnings were not much higher than their previous job's salary. Borrowing money from friends or loan sharks is a frequent household coping strategies. There is a voluntary contribution that rises during the pandemic in some areas.<sup>21</sup>

An overview of coping strategies in foodinsecure households is provided in response to a pandemic or crisis that may raise the likelihood of food insecurity. During the pandemic of COVID-19 in the United Kingdom, food insecurity was linked to consumption of high-energy-density foods, overeating, overweight/obesity, decreased intake of fruits and vegetables, and an increase in homeprepared consumption in adults.<sup>22</sup> The study from eighty-two countries survey, there were 14.5% Children were reported to be having difficulty obtaining appropriate food.<sup>23</sup> Children and women in Bangladesh have been affected by the quality and amount of food available, putting them at risk of acute malnutrition due to a lack of nutritional variety. To deal with food insecurity, the majority of individuals borrowed money or food.<sup>7</sup> In Pakistan, the people who rely on government assistance by financial support have improved their food security during the COVID-19 pandemic.<sup>24</sup> Most of the households who experiencing food insecurity were more likely to engage in food-related coping strategies such as reduce the quality and quantity of food by relied on less preferred foods, reduced portion sizes, number of meals during COVID-19 pandemic, and borrowing money to buy food.<sup>23,25</sup> Based on the other study, It was found the food assistance program were one of the strategy to helped the household facing food insecurity during COVID-19 pandemic.<sup>26</sup>

Aside from that, there are many types of coping strategy, such as adaptive and maladaptive coping strategies. Behavioural disengagement, self-blame, and poor acceptance were among the maladaptive coping methods. Before lockdown, they were linked to emotional and uncontrollable eating, which worsened as stress increased. Increased consumption of fruits and vegetables, as well as home-cooked meals, was associated with reduced food insecurity and more adaptive coping strategies. Exercising and getting enough sleep are both elements of adaptive and problem-focused coping techniques.<sup>22</sup>

### Conclusion

To the best our knowledge, we conclude that all mothers were encouraged to learn about an adaptive coping strategies. Early detection of at-risk children in food-insecure households must be reactivated by community nutrition and health workers to combat the risk of increasing undernourished.<sup>27</sup> The food assistance program would be good idea to assist mothers in coping with food insecurity during COVID-19 pandemic. Furthermore, for a better living, all sectors, including government, health, and social services, should act collaboratively.

## **Conflict of Interest**

Authors declared no conflict of interest regarding 8. this article.

### **Open Access**

This article is distributed under the terms of the Creative Commons Attribution 4.0 International Licence

(http://creativecommons.org/licenses/by/4.0/),

which permits unrestricted use, distribution, and reproduction in any medium, provided you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made.

#### References

- Nieuwenhuijsen MJ. COVID19 and the city; from the short term to the long term. Environ Res. 2020;191:1– 3. DOI: <u>10.1016/j.envres.2020.110066</u>
- ILO. ILO Monitor: COVID-19 and the World of Work, Seven Edition. [Internet]. 2021 p. 1–12. Available from: https://www.ilo.org/wcmsp5/groups/public/@dgreport s/@dcomm/documents/briefingnote/wcms\_767028.pdf
- 3. Milovanska-Farrington S. Job Loss and Food Insecurity during the COVID-19 Pandemic. IZA Inst Labor Econ. 2020;14273:1–27. Available from: http://ftp.iza.org/dp14273.pdf
- 4. Niles MT, Bertmann F, Belarmino EH, Wentworth T, Biehl E, Neff R. The early food insecurity impacts of COVID-19. Nutrients. 2020;12(2096):1–19. DOI: 10.3390/nu12072096
- Ali D, Saha KK, Nguyen PH, Diressie MT, Ruel MT, Menon P, et al. Household Food Insecurity Is Associated with Higher Child Undernutrition in Bangladesh, Ethiopia, and Vietnam, but the Effect Is Not Mediated by Child Dietary Diversity. J Nutr. 2013 Dec 1;143(12):2015–21. DOI: https://doi.org/10.3945/jn.113.175182
- Grammatikopoulou MG, Gkiouras K, Theodoridis X, Markaki AG, Chourdakis M, Goulis DG. Food insecurity increases the risk of malnutrition among community-dwelling older adults. 2019;119:8– 13. DOI: <u>10.1016/j.maturitas.2018.10.009</u>
- Das S, Rasul MdG, Hossain MS, Khan A-R, Alam MA, Ahmed T, et al. Acute food insecurity and short-term coping strategies of urban and rural households of Bangladesh during the lockdown period of COVID-19 pandemic of 2020: report of a cross-sectional survey. BMJ Open. 2020;10:1–12. DOI: <u>10.1136/bmjopen-</u> 2020-043365
  - Akseer N, Kandru G, Keats EC, Bhutta ZA. COVID-19pandemic and mitigation strategies: implications formaternal and child health and nutrition. Am J Clin Nutr.2020Aug;112(2):251–6.https://doi.org/10.1093/ajcn/ngaa171
- Puspitasari MD, Gayatri M. Indonesia Infant and Young Child Feeding Practice: The Role of Women's Empowerment in Household Domain. Glob J Health Sci. 2020;12(9):1–16. DOI:<u>10.5539/gjhs.v12n9p129</u>
- National Population and Family Planning Board, Statistics Indonesia, Ministry of Health, The DHS Program ICF. Indonesia Demographic and Health Survey 2017. Jakarta: National Population and Family Planning Board; 2018 p. 186–8. Available from: https://dhsprogram.com/pubs/pdf/FR342/FR342.pdf
- Bene C, Bakker D, Chavarro MJ, Even B, Melo J, Sonneveld A. Global assessment of the impacts of COVID-19 on food security. Elsevier. 2021;31. DOI:https://doi.org/10.1016/j.gfs.2021.100575

- Kinsey EW, Oberle M, Dupuis R, Cannuscio CC, Hillier A. Food and financial coping strategies during the monthly Supplemental Nutrition Assistance Program cycle. Elsevier. 2019;7(100393):1–8. DOI: 10.1016/j.ssmph.2019.100393
- 13. WHO/EHA. Emergency health training programme for Africa. Panafrican Emergency Training Centre; 1998. Available from: https://www.academia.edu/28013985/EMERGENCY\_ HEALTH\_TRAINING\_PROGRAMME\_FOR\_AFRIC A
- Skinner EA, Edge K, Altman J, Sherwood H. Searching for the structure of coping: A review and critique of category systems for classifying ways of coping. Psychol Bull. 2003;129(2):216–69. DOI: 10.1037/0033-2909.129.2.216
- Sulaiman N, Yeatman H, Russell J, Law LS. A Food Insecurity Systematic Review: Experience from Malaysia. Nutrients. 2021;13(945):1–39. Available from: https://doi.org/10.3390/nu13030945
- 16. Umesh G, Karippacheril JG, Magazine R. Critical appraisal of published literature. Wolters Kluwer. 2016;60(9):1–4. DOI: <u>10.4103/0019-5049.190624</u>
- Chilombo A, Van Der Horst D. Livelihoods and coping strategies of local communities on previous customary land in limbo of commercial agricultural development: Lessons from the farm block program in Zambia. Land Use Policy. 2021 May;104:105385. DOI: <u>10.1016/j.landusepol.2021.105385</u>
- Blekking J, Waldman K, Tuholske C, Evans T. Formal/informal employment and urban food security in Sub-Saharan Africa. Appl Geogr. 2020 Jan;114:102131. DOI: <u>10.1016/j.apgeog.2019.102131</u>
- Headey D, Goudet S, Lambrecht I, Oo TZ, Maffioli EM, Toth R. Poverty and Food Insecurity during COVID-19. Strategy Support Program. 2020;03:1–18. DOI: https://doi.org/10.2499/p15738coll2.134013
- 20. Barsoum G. From Fisher wives to fish vendors: Gendered livelihood transitions in a fishing village in Egypt. Elsevier. 2021;88:117–25. DOI: https://doi.org/10.1016/j.jrurstud.2021.10.012
- 21. Indonesia Rapid Gender Assessment in Response to COVID-19 – CARE | Evaluations [Internet]. [cited 2020 Aug 23]. Available from: http://www.careevaluations.org/evaluation/indonesiarapid-gender-assessment-in-response-to-covid-19/
- 22. Coulthard H, Sharps M, Cunliffe L, van den Tol A. Eating in the lockdown during the Covid 19 pandemic; self-reported changes in eating behaviour, and associations with BMI, eating style, coping and health anxiety. Appetite. 2021 Jun;161:105082. DOI: 10.1016/j.appet.2020.105082
- Jafri A, Mathe N, Aglago EK, Konyole SO, Ouedraogo M, Audain K, et al. Food availability, accessibility and dietary practices during the COVID-19 pandemic: a multi-country survey. Camb Univ Press. 2021;24(7):1798–805. doi:10.1017/S1368980021000987

- Shahzad MA, Qing P, Rizwan M, Razzaq A, Faisal M. COVID-19 Pandemic, Determinants of Food Insecurity, and Household Mitigation Measures: A Case Study of Punjab, Pakistan. Healthcare. 2021;9(621):1–17. DOI: https://doi.org/10.3390/healthcare9060621
- 25. Nguyen PH, Kachwaha S, Pant A, Tran LM, Ghosh S, et al. Impact of COVID-19 on household food insecurity and interlinkages with child feeding practices and coping strategies in Uttar Pradesh, India: a longitudinal community-based study. BMJ Open. 2021;11:1–10. DOI: 10.1136/bmjopen-2021-048738
- Lewis EC, Col on-Ramos U an, Gittelsohn J, Clay L. Food-Seeking Behaviors and Food Insecurity Risk During the Coronavirus Disease 2019 Pandemic. Journal of Nutrition Education and Behavior. 2021;0(0):1–13. DOI: <u>10.1016/j.jneb.2021.05.002</u>
- Ntambara J, Chu M. The risk to child nutrition during and after COVID-19 pandemic: what to expect and how to respond. Camb Univ Press. 2021;1–18. DOI: DOI: 10.1017/S1368980021001610