

Contribution of home gardening for achieving food and nutrition security during covid-19 pandemic; Study on Gonapinuwala DS division

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1. Introduction

The COVID-19 pandemic has had an impact on all aspects of life. People have been forced to stay inside their homes due to quarantine, resulting in a "new normal" of living and adaptation. Countries had to follow prevention guidelines such as travel restrictions, the physical distancing of at least one meter, mandatory use of face masks when outside at home, and community lockdowns for prevention to spread. Those guidelines affected day-to-day activities all over the world (Sunga & Advincula, 2021). The COVID-19 pandemic has affected food insecurity in urban areas due to disruptions in the food supply chain, aggravation of physical and economic barriers to food access, and labor shortages.

Due to limited or non-existent international transactions, countries will have to rely on their own food and resources in such a situation. When considering Sri Lanka, imports a significant amount of food and the country has a trade deficit. As a result of that, Home gardening raised in popularity, both in rural and urban areas in Sri Lanka.

Food and nutrition security describes when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for active and healthy life (Hannah & Pieters, 2013). Home gardening is an important strategy for increasing access and ensuring food security at the household and community levels (Lal, 2020). This study focuses on the Relationship between home gardening and food and nutrition security during the COVID-19 pandemic.

2. Materials and Methods

This study employed the deductive approach. The survey was used as a research strategy to provide a solution to the research problem. A Self-Administrated questionnaire and structured interview conducted to obtain these primary data by visiting the household.

According to the census from the Sri Lanka Department of Census and Statistics, There are 6167 households in the Gonapinuwala Divisional Secretariat (DS) division, which is divided into 19 Grama Niladari (GN) divisions. Clusters are defined at the of GN divisional level. Then, based on the ratio of the household population in each of the three GN Divisions, Simple Randomly selected three GN divisions from the total of 19 GN divisions and obtained 100 households.

This Study uses Descriptive Statistics, Chi-square test, Frequency Analysis, Graphically illustration, and Scoring Method. SPSS 21 Version was used for data analysis. The US HDDS Scoring Method used for assessing the status of food secure or food insecure. The respondent was asked to recall all food (including snacks) and drinks consumed at home within 24 hours prior to the interview. HDDS consisted of a list of 12 food groups. When those households consume less than six food categories can introduce as food insecure, and when more than six food categories can introduce as food secure. The total possible score was 12 (Ene-Obong et al., 2017).

3. Results and Discussion

The Gonapinuwala DS Division was Food Secure in the accessibility dimension, according to the HDDS method. According to the HDDS method, 68% of households were food secure, while the remaining 32% were food insecure. The Gonapinuwala DS Division Food Security score was 7.4 as compared to the average HDDS indicator. As a result, the area was designated as a food secure zone. If household food is secured, those households had High Dietary diversity.

The frequency analysis is used to evaluate the household's home gardening status. Among 100 households, 79% maintain a home garden and 21% do not maintain. Out of the 79% of households that have a home garden, 18% are regularly maintained home gardens and 61% are irregularly maintained. Out of the 79% of home garden owners, 46.80% initiated their gardens during the COVID-19 pandemic, while the remaining 53.20% maintained their gardens prior to the COVID-19 pandemic.

Dependent variable	Independent variables	P value	Degree of freedom	value	Cramer's V value
Status of Food and Nutrition Security	Maintenance of Home Gardening	0.008	1	7.131	0.267

Figure 2. Chi-square test Results

There are two Hypotheses;

H0: There is no Relationship between maintenance of Home Gardening and Food and Nutrition Security in Households.

H1: There is Relationship between maintenance of Home Gardening and Food and Nutrition Security in Households.

P value is less than 0.05. The null hypothesis was rejected. Cramer's V value is (0.267) between 0.2-0.3. There is a moderate relationship between maintenance of Home Gardening and Food and Nutrition Security in Households. When increasing home garden cultivation cause to improving households food Security (Dioula et al., 2013).

4. Conclusions

This study was done to Study on Relationship between home gardening and food and nutrition security during COVID-19 pandemic. The average HDDS indicator score was 7.4. As a result, it is possible to conclude that the Gonapinuwala DS Division is a food secure zone. When it comes to home garden maintenance, 76% of households do it. Out of them, 46.80% initiated their gardens during the COVID-19 pandemic; while the remaining 53.20% maintained their gardens prior to the COVID-19 pandemic. There has the significant relationship between maintaining home gardens and food security.

5. References

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