

Food Bank in Malaysia: What Factors Constitute its Development and the Challenges?

Aliffaizi Arsat¹, Mohd Salehuddin Mohd Zahari¹, Mohd Zain Kutut¹, Muhamad A'rif Aizat Bashir²

¹Faculty of Hotel & Tourism Management, Universiti Teknologi MARA, 42300 Puncak Alam, Selangor, Malaysia, ²Faculty of Hotel & Tourism Management, Universiti Teknologi MARA, Permatang Pauh, Penang, Malaysia

Corresponding Author Email: aliffaizi@uitm.edu.my

To Link this Article: <http://dx.doi.org/10.6007/IJARBS/v13-i5/17041> DOI:10.6007/IJARBS/v13-i5/17041

Published Date: 01 May 2023

Abstract

This paper explores factors that constitute a food bank development program and challenges concerning its development. Using a qualitative approach and through purposive sampling, ten heads of NGOs and food bank foundations in the Klang Valley who are active in the food bank program took part in a semi-structured interview. The data were recorded, typed and analysed accordingly to the research aims. Reduced food waste, starvation issues, homelessness, natural disasters, and low-income status constitute food bank program development. In addition, the challenges NGOs and foundations face in handling the program include operation, funding and financial support, maintaining the quality of food, transportation and getting peoples' trust. These findings undoubtedly draw several theoretical and practical implications.

Keywords: Food Bank, Factors, Challenges, NGOs, Foundation, Malaysia

Introduction

Food insecurity occurs whenever the availability of nutritionally adequate and safe foods, or the ability to acquire acceptable food in a socially acceptable way, is limited or is uncertain (Mello et al., 2010; Campbell, 1991). Food insecurity typically affects those who are most socioeconomically disadvantaged. It may be transient because people move in and out of food insecurity as their circumstances change (Liese et al., 2021; Seivwright et al., 2020). However, increasingly, people are experiencing chronic food insecurity. In high-income countries where public assistance fails to meet community needs, food aid services, such as food banks, community kitchens, soup vans, and subsidised community markets, have been established to bridge the food security gaps. These services, often termed 'emergency food aid', are typically intended as a short-term solution for those who are economically, geographically and/or socially disadvantaged. In an emergency state, the food bank program is one of the initiatives to curb the issue.

The food bank refers to one of two services: a large redistributor of rescued food to smaller charities that provide cooked and/or uncooked food to food-insecure populations or a service that provides grocery items directly to clients. Food banks generally are non-profit-making organisations, either in a straight line or through front-line social welfare agencies, collecting, storing and providing donated and leftover food to famished people (Riches, 2002). Some food banks rely solely on public and commercial donations, have little control over the items they obtain, and therefore are limited in what they can offer to those in need (Tarasuk et al., 2014), while others also buy food when their pillories are low (Riches, 2002). Food banks have been discussed with a view of deficiency in volume to respond unflinchingly and fully to the food wishes of the abundant society using them (Tarasuk & Beaton, 1999; Tarasuk & Eakin, 2003; Tarasuk et al., 2014). Food banks are assumed to be able to contribute to, rather than solve the problem of food insecurity by allowing governments to look the other way, shifting responsibility for food insecurity to these charitable institutions, rather than establishing a common environment that would allow it to prevail (Booth & Whelan, 2014; Lambie–Mumford, 2013; Riches, 2011; Tarasuk et al., 2014). Food banks are considered a short-term measure to ameliorate a surge in food insecurity, which provide food assistance in the form of unprepared grocery items directly to people in need or provide immediate solutions to severe food deprivation.

The growth of food banks that aims to help the less fortunate get food that can indirectly reduce the cost of living can be seen globally, which Malaysia is undoubtedly part of. In this country, the concept is to save the surplus food that is still edible through the collection of contributors such as supermarkets, manufacturers, food entrepreneurs, hotels and corporate companies. The food collected will then be distributed to identified target groups from poor and disabled families, welfare homes, food aid centres, as well as underprivileged university students. To date, some NGOs and foundations are active in food banks program, although some only function in a situational context and depend on the state of emergency.

Many available studies to date are centrally focused on food banks as a valuable source of food assistance for food insecure populations (Bertmann et al., 2021), food bank and food insecurity (Bezerghi et al., 2016; Riches, 2002), the growth of food bank (Numford, 2018; Bacon and Baker 2017), the impact of Novel and Traditional food bank (Rizvi et al., 2021), Geographies of food bank Cloke et al (2016) and food bank and nutrients requirement (Irwin, 2007). Nevertheless, the information on factors that constitute the development of the food bank program and its challenges still need to be improved, particularly from Malaysian's perspective than those overseas. In other words, and coherent with this study context, what factors influence the NGOs and foundations in implementing the food bank program, and what challenges do they face? With this gap, this study qualitatively explores the view of NGOs and foundations actively undertaking the food banks program. Specific objectives are to explore: i) factors that constitute the food bank development program; ii) challenges regarding its development.

Literature Review

Food Bank

In combatting food insecurities, federal programs through charitable agencies such as soup kitchens or food pantries assist underprivileged individuals in relieving their hunger relief. Nevertheless, the success of these charitable organisations is mainly reliant on upstream sources of food supply from food banks that solicit, receive, inspect, inventory, and distribute food and grocery products. The operation of food banks fundamentally involves aggregating donated food supply from several sources (e.g., private organisations, national donors, food-

gleaning organisations and local sponsors) and distributing the donated food to charitable agencies (Davis et al., 2014; Ohls et al., 2002). From this, it is apparent that food banks deal with multiple parties and organisations simultaneously, and balancing delivery and collection requirements from all of them is quite challenging.

Ohls et al (2002) denote that most food banks in the United States serve more than 100 charitable agencies, where some agencies are as far as 80 miles or more from their warehouse. Since food banks mainly provide food to agencies through on-site warehouse collection, the distance limits an agency's ability to collect on a regular basis. Besides, many food banks have limited access to refrigerated vehicles for transporting food, particularly those in remote parts of the service area. Providing regular and frequent delivery to rural agencies can be challenging if food bank vehicles are also used for collections.

Another challenge pertains to the food safety concern, particularly the handling and distribution of perishable food. This situation is even more challenging when charitable agencies or donors are sporadically distributed throughout a food bank's service area. Those agencies that are not within a safe travel radius must either use food bank-managed dispatches or bear the expenses associated with refrigerated transport. Even though making a profit is not their goal, food banks, like other non-profit organisations, must make the best use of the resources they have in order to help their communities the most. For an organisation that operates with a limited number of vehicles, this is considered quite a challenge for food banks to operate.

Having mentioned all the challenges that food bank organisations might encounter across various nations, the applicability in Malaysia is still ambiguous. In other words, the factors that constitute the development of food banks and their challenges are still limited, particularly from Malaysia's perspective compared to overseas.

Methodology

A qualitative approach through the in-depth interview is applied for information gathering. The subject and unit of analysis were among the ten heads of NGOs and food bank foundations in the Klang Valley who are active in the program. A purposive sampling strategy was used during the interview stage. They were contacted via telephone, obtaining permission to be interviewed. The semi-structured interview questions were developed in English to avoid biased responses and with the idea of discovering rather than prescribing. The development of the research guide was based on the study specification and relevant literature search. Table 1 shows a list of the primary questions from the research guide. The interview questions range from the demographic profile to factors influencing the development and the challenges.

Table 1

Primary questions from the research guide

Topic	Primary Questions
Demographic profile	How long food has been established, Primary focus, What sorts of food distributed,
Factors constitutes food bank development program	What factors make you develop the food bank program?
Challenges in regard to it development	What are the challenges faces during the initial stage?

Face-to-face interviews were undertaken. Before the interview sessions, each of the heads of NGOs and the food bank foundation was explained that their participation was voluntary, with all the information provided strictly confidential and that their names would not be revealed. Written consent was acquired from them. All the interviews were tape-recorded, each lasting an average of one and a half hours. The recorded data were transcribed immediately after the in-depth interviews were conducted. On top of the informants' exact words, other significant data such as hesitation, noise, language, and others were also recorded to avoid data outliers, biased judgment, and other factors that might impact the findings. The coding process was manually done and followed by qualitative data analysis using ATLAS.ti version 8. The themes and sub-themes in the research were identified through inductive and deductive approaches. Codes were categorised, and main domains were identified. Verification of the informants and well-documented processes and documents were done to assure content validity, and the inter-rater reliability tests were assessed and found to be acceptable.

i) Informant Profile

During the interview session, information such as the establishment of the food bank, the primary focus, kinds of food distributed were asked. Each of the ten NGOs and food bank foundations distributes almost all kinds of food, from dry, fresh and cooked food. The target groups were the homeless, poor- family, students and people in disaster.

Findings

Due to the flexibility in understanding how people represent themselves, express and share their experiences, narrative and thematic analysis is used to interpret the interviewed information with verbatim quotations. The names of those who participated are not disclosed to preserve confidentiality, thus throughout the analysis, they are known as "Informant".

Factors Constitute to Food Bank Development Program

The description identifies five factors that constitute the food bank development program. They are: reduced food waste, starvation issues, homelessness, natural disasters and low-income status.

i) Reduce The Food Waste

The majority of informants addressed that without exception, Malaysia is facing the issue of food waste. Improved income earnings, living standards, and affordability of food access contribute to the higher amount of food waste. Besides, the surplus food from manufacturers, wholesalers, hypermarkets and hotels contributes the food waste. In reducing it, some

government agencies, NGOs, and foundations took the initiative to collect all surplus food that is still eatable and safe to consume through the food bank program. This is one of the reasons why the NGOs and foundations set up the food bank program. A few informants highlight that although a bit complicated and tricky, particularly regarding developing the agreement from food manufacturers, wholesalers, hypermarkets and many others, with good intentions and the spirit to help others then, consensus finally be obtained.

".....the surplus food from manufacturers, wholesalers, hypermarkets before food bank initiative will directly be discarded to the landfill. In the long term, harmful gases such as methane and ammonia will affect the environment. Our government had to spend billions of dollars to solve the problem, and as it reduces food waste, I took the initiative to set up the food bank program"Informant 3

".....the main purpose of establishing this food bank program is to save the surplus food from being wasted. We do not want expired surplus food but something eatable and consumable. To me, food banks not only reduce food waste but can alleviate the food crisis issue"Informant 6

ii) Starving Issue

Food insecurity is an arising issue among university students owing to family household income, an increased cost of living and a rise in tuition fees. For educational purposes, some students from less affordable families could not afford decent or good food and, thus, skipped breakfast, lunch or dinner. Food insecurity is undoubtedly detrimental to student academic performance. Food starvation in higher institutions, particularly among the B40 students, was bloated and brought to the cabinet's attention after a media report. Aware that they can help lighten the burden of university students, some organisations in this study specifically set up a food bank program for the students. They claimed this is one of their social responsibilities as education could not be deprived, and everyone is entitled to a fair education.

"..... I was in education and dealing with students. Based on my observation, some university students do not have enough food and cannot afford to buy even the price of around RM 4.00- RM 5.00 per meal. This scenario really touches my heart. After a few discussions with friends and authorities, as a human being, I took the initiative to set up the food bank program specifically for universities and college students. Its works"Informant 2

".....Thanks to the media which always highlighted the issue of food and university students. The Ministry of Higher Education, government agencies and NGOs are really concerned about this issue. Obviously, students could not concentrate on their studies on an empty stomach. Honestly, what would I do if my son or daughter were in that situation? With the Islamic teaching practices, me and friends, support from government agencies, we formed a food bank program"Informant 5

iii) Homelessness

Undoubtedly, homelessness or *gelandangan* is received a greater concern in most countries across the globe, including Malaysia. Homelessness is when someone lacks regular shelter or people who do not have a home and sleep on the streets. This is also referred to those whose basic night-time residence is a homeless shelter or other improvised form of housing. These

peoples are always with less food and less decent clothes. Unemployment, low income and domestic violence are the causes of homelessness. Some also have severe mental illness. These sorts of the statement is given by some of the informants. They claimed that the homeless or less fortunate peoples are part of the community, thus, need to be helped in terms of food, clothing and even shelter for survival. Some informants disagreed with the idea of helping the homeless as they did not want to encourage people to become homeless. It will look negative on Malaysian and the government in the eyes of international tourists.

".....in principle, I do not really adore homelessness, but we cannot totally stop them. Well-developed and rich countries could not ease this phenomenon. When we see our Malaysian is homeless, my inner heart urges to help. So, besides others, we help them"Informant 8

" honestly, the homelessness issue is unstoppable. Few state governments even built a centre for this group. Some homelessness a really genuine, but some are opportunists. Whatever they are, as a human beings and as our social responsibility, we help them"informant 10

iv) Natural Disaster

Other reasons for setting up, designing and implementing the food bank program claimed by a few NGOs and foundations is to assist those involved in natural disasters such as floods, fires, tsunamis and others resulting in property loss. Most informants briefly highlight Malaysia's monsoon season scenario associated with natural disasters. Between mid-October and the end of March, the climate in the west and eastern side of the peninsula is particularly affected by the rainy or monsoon season. Weather is usually very rough due to heavy rain, which often causes landslides, mudslides, and floods. Heavy downfall often causes flash floods, especially in city areas. During this catastrophe, residents lost their belongings, properties and food, becoming an utmost importance. One of the informants stressed that in this modern era, disasters occur, either natural or man-made. Although natural disasters are catastrophic events resulting from natural causes such as floods, landslides, and mudslides, it is happening now due to human negligence and gluttony.

"..... Nowadays, it cannot be denied the fact that too many disasters have happened in our country. We have always heard about flash floods that cause people to lose their property and so on. When this happens, they really need help. Food is one of the important matters to the victim. So, the establishment of this food bank program can provide some convenience to the victim"informant 9

"..... Everyone knows that when something bad happens, such as a flood, tornado and so on, those involved are surely panicked and affected by the incidents. Besides property damage, food and clothing are, of course, the main necessities for survival. Therefore, we, along with our strategic partners, will, of course, help them through the food bank program we set up. In short, the establishment of this food bank is very beneficial"Informant 1

v) Low Income

Like many other countries, Malaysia struggles to keep up with rising living costs. The challenges are severe among rural and urban low-income families. Low-income families can

be categorised as B40, which refers to the bottom 40 per cent of households with a monthly income of RM 3900 and below. The food insecurity among low-income households has forced them to adopt less healthy diets, thereby further threatening to exacerbate Malaysia's worsening child malnutrition crisis. Malnutrition and inadequate diet are factors associated with low socioeconomic status. The involvement of government, private sector and community-based organisations is important to combat the short-run, seasonal, and even-related risks and develop appropriate mitigation and adaptation options to ensure sustainable food security at the household level in Malaysia. Most informants stressed that their food bank program, besides others, plays an important role in assisting low-income families.

"..... even though this country aims towards a developed country, we cannot run away from the issue of low income among the population. Many of our residents are in the low-income category. So, they need to be helped. Establishing this food bank program can help lessen their economic burden and difficulties"Informant 2

"..... We have not fully recovered from COVID-19. The economic shrinkage still affects many of our people, especially low-income families. This issue needs to get attention from the central government. So, in reducing the impact on the low-income group, establishing this food bank program at least ease their burden as they are also one of our target group"Informant 1

To this end, it is manifestly indicated that reducing food waste, starving issues, helping the homeless, aid those involved in natural disasters and low-income families are the factors for NGOs and foundations setting up and executing the food bank program.

Challenges in Managing Food Bank Program

Through the description, four challenges faced by NGOs and Foundation in setting up the food bank program; Operation, Funding and Financial Support, Maintaining Quality of Food, Transport and People Trust

i) Operation

Operations management is essential for any organisation to manage their daily activities seamlessly. Operations management controls all the processes and handles issues, including design, operation, maintenance, production processes, service delivery, and improvement of the systems. However, at the initial stage of the operation, there must be some challenges faced by the new organisation, including the food bank program. Based on the information gathered from the NGOs and Foundation of the food bank, the lacking of a standard operating procedure (SOP) to be based on regarding the quality of food products received from the donors, selection of the receivers, and distribution methods are some of the challenges faced by those organisations. Thus, they have to develop themselves or based on their discretion. Second, it dealt with manpower to handle the food products. As volunteering work, getting those individuals to be part of the program, especially among the young ones at the initial stage, is quite difficult. Third, difficulty in maintaining the stock received, which requires a centre or building and finally, difficulty stabilising and sustaining the program. However, all those challenges are gradually overcome through the connection and campaign.

".....Honestly, there is no SOP to base on. It is really up to us to handle things to determine product quality, receivers, or distribution. It is really hard at the initial stage" Informant 4

"..... I admitted that forming this food bank foundation is quite costly as we have to start it from scratch. Besides, to ensure the program runs smoothly, we need to find volunteers as well as maintain the stock. That is really challenging, and honestly, without volunteers, our mission would be jeopardised" Informant 10

ii) Funding and Financial Support

Funding and financial and non-financial support is the backbone of any charity organisation. This includes organisations that aim to help the community. In fact, financial and non-financial contributions are very important not only during the setup of the organisation but also in ensuring its survival. Effective non-profit financial management is necessary to ensure the organisation is financially healthy enough to pursue its mission and take on additional growth opportunities. In this context, the majority of the NGOs and Foundation of the food bank program in this study stressed that it is not an easy task for them to find funding and financial support, especially during the implementation of the program. These challenges are considered normal for a new organisation. They claimed it is hard to convince the donors without clear objectives, mission and solid evidence. At the initial stage, donors mostly contribute non-monetary items rather than monetary ones. Therefore, more fundraising was undertaken at an early stage of establishing the food bank program.

"..... Funding is one of the challenges for us at the early stage of setting up the food bank program. Although we have some start-up funds, they would not sustain us longer. Thus, financial and non-financial support is really important. Donors would not donate without an official paper and something that benefits them. I could say that is a real challenge"Informant 8

".....Although we are one of the earliest food bank foundations focusing on university students, the challenges in terms of monetary and none monetary funding are unavoidable. No direct sources of the fund were received. However, with the approval documents, we are able and fortunate to sign contracts with some hypermarkets. On top of that, we organised a few fundraising events" Informant 6

iii) Maintaining Quality of Food and Storage Facility

Food is undoubtedly is a highly sensitive product. This is one of the key reasons behind maintaining quality food products is incredibly important to ensure consumers are eating and handling safe food items. It can protect customers from dangers such as contaminated foods while ensuring they receive the weight and quality of food they have paid for. Thus, keeping food safe begins with having enough storage space and a designated area for each item to be placed. Some NGOs and food bank foundations accentuated that maintaining the quality of food is not an easy task. It deals with many things, such as storage and food handling facilities, and most importantly, the person in charge must have some knowledge of food handling. In this sense, maintaining food quality is seen as a challenge in the earlier stage of the establishment due to a lack of space and personnel. They claimed that the convenient food received must be stored and frequently checked on its expiry date.

".....although we do develop our procedures and guidelines concerning food items received from the donors, we cannot demand and expect all of the products to be perfect. We must store them for some time, and frequent check needs to be done. Thus, a person who needs to do such a thing something becomes a big issue, especially at the early stage"Informant 5

"before this, our storage facilities are very small without proper ventilation. We cannot afford it as it costs a lot of money. That is a real challenge for us. Thank god things are getting better now"Informant 1

iv) Transport

In general, transport is used for transporting people or goods from place to place, like a bus, lorry or cart and the various means by which such movement is accomplished. It is essential for any business to be able to procure materials, take them to a production location, and distribute their final goods. Transportation connects companies to suppliers and customers, creating an important framework that allows supply to meet personal and professional demands. Based on the interview, some NGOs and Food Bank Foundation admitted they were confronted with the transportation problem. This is because they must first pick up the food products from the donors before distributing them to the needy. This creates an additional cost as they need to hire a truck driver and bear the cost of petrol, and if the vehicle is damaged, they will have to bear the cost of repairing. Such challenges were faced during the establishment of the food bank program.

"..... issue of transport. At the initial stage, we do not have proper transport to pick up the food products from donors. Thus, the issue of hiring a driver, van or small lorry is apparent. That is really a challenge for us. Now things are much better as we own a lorry and van"Informant 4

"..... as a small food bank foundation at the early stage, the transportation issue arises. Before getting proper transport, we only take a small amount of food from donors. We are fortunate as one generous individual sponsored one lorry to our foundation"Informant 3

v) People's Trust

Trust is usually associated with the firm belief in the character, strength, or truth of someone or something. Trust can influence people to choose the products, and the effect of trust can also assist people in assessing and taking advantage of the products. Besides trusting in the products, trust could also affect people's confidence in company integrity. In this context, donors are concerned that their charity donations may prevent the total amount from reaching the targeted groups. A few informants claimed that some hypermarkets were questioned in terms of storage, distribution method, procedures and receivers. These sorts of challenges are faced by NGOs and foundations at the beginning of their food bank program.

"..... it is not easy to get trust from the donors. We need to convince them of our procedures for reaching our target receivers. Some donors wonder how long will the food products stored. Honestly, it is a real challenge"Informant 6

"talking is easy than the implementation. So many challenges faced by my foundation. That is all related to people and donors' trust. In this sense, at the initial stage, we have to visit and invite potential donors to our office. They need evidence and documentation"Informant 7

Implication and Conclusion

As previously mentioned, studies in the context of food banks and food insecurity, the growth of food banks, the impact of novel and traditional food banks, geographies of food banks and food banks, and nutrients requirement have been widely highlighted. However, the factors that constitute the food bank development program and its challenges still need to be addressed. Thus, researching these issues contributes to a new body of knowledge and literature on the food bank program. Since none has touched on the Malaysian food bank program, the novelty of this study not only enhances the understanding of this program but creates a new body of knowledge. The findings of this study may also serve as a model for future researchers to replicate in a different setting.

This study demonstrated that reduced food waste, starvation issues, homelessness, natural disasters, and low-income status constitutes food bank program development. Hence, this finding provides significant insights and implications for practical contributions. Following this notion, any government body, NGO, foundation or individual wishing to establish a food program must have an obvious objective, vision, and mission or goal by considering their target group. The target group here is the identified group meant to receive the products from the food bank program. Many experts claim that the target group should not be too big or relatively small at the beginning of the charity establishment. This study found that there are NGOs and foundations which only focus on one or two targets group in the early stage of their food bank program. This is considered a very good decision at that stage, and no exaggeration that not many peoples or donors know about their existence. Thus, less and no monetary donations are received and limited what they can offer to those in need.

It goes without challenge, and without a doubt, at the initial stage, there are many challenges faced by the NGOs and Foundation of the food bank programs, especially among the small or less funding ones. The findings of the study revealed that operation, funding and financial support, maintaining the quality of food, transportation and getting people's trust are the challenges faced by NGOs and foundations in handling the food bank program. Although other challenges are important, convincing the public and getting people's trust that the food bank program really aims to help the needy. The food distributed is of good quality, and ensuring it arrives at the target group is one of the most critical challenges because people's perceptions might differ. Overcome the issue of people's trust, other challenges like operation, funding and financial support, maintaining food quality and transportation will gradually be accomplished.

From the preceding notions, establishing a food bank program is an excellent initiative no matter what because it can eliminate food waste, in turn benefiting the needy. Even though Malaysia is not a poor country, a small part of society is 'trapped' in the problem of poverty, which requires attention. In conclusion, it is hoped that more governments, NGOs, foundations or individuals are prepared to establish food bank programs to ease the burden related to the cost of living and those affected by adversities.

Acknowledgement

The work described in this study was funded by Universiti Teknologi MARA, Cawangan Selangor. Research Grant (DUCS - 600-UITMSEL (Pl. 5/4) (044/2020).

References

- Liese, A. D., Davis, R. E., Diaz, D., Stucker, J., Reid, L. A., Jindal, M., ... & Jones, S. J. (2022). Experiences of food insecurity and type 2 diabetes management in adults. *Journal of Hunger & Environmental Nutrition*, 17(3), 363-379. DOI: 10.1080/19320248.2020.1826380
- Bacon, C. M., & Baker, G. A. (2017). The rise of food banks and the challenge of matching food assistance with potential need: towards a spatially specific, rapid assessment approach. *Agriculture and Human Values*, 34(4), 899-919.
- Bertmann, F., Rogomentich, K., Belarmino, E. H. & Niles, M. T. (2021). The food bank and food pantries help food insecure participants maintain fruit and vegetable intake during COVID-19. *Frontiers in Nutrition*, 510.
- Berner, M., & O'Brien, K. (2004). The shifting pattern of food security support; food stamp and food bank usage in North California. *Non-profit and Voluntary Sector Quarterly* 33: 655–672.
- Bazerghi, C., McKay, F. H. & Dunn, M. (2016). The role of food banks in addressing food insecurity: a systematic review. *Journal of Community Health*, 41(4), 732-740.
- Booth, S., & Whelan, J. (2014). Hungry for change: The food banking industry in Australia. *British Food Journal*, 116(9), 1392e1404.
- Campbell, C. C. (1991). Food insecurity: a nutritional outcome or a predictor variable? *The Journal of Nutrition*, 121(3), 408-415.
- Cloke, J. (2016). Food security and food waste. Peter Jackson: Walter EL Spiess, 99.
- Davis, L. B., Sengul, I., Ivy, J. S., Brock III, L. G. & Miles, L. (2014). Scheduling food bank collections and deliveries to ensure food safety and improve access. *Socioeconomic Planning Sciences*, 48(3), 175-188.
- Irwin, J. D. (2007). The prevalence of physical activity maintenance in a sample of university students: A longitudinal study. *Journal of American College Health*, 56(1), 37-42. DOI: 10.3200/JACH.56.1.37-42
- Lambie-Mumford, H. (2013). 'Every town should have one': emergency food banking in the UK. *Journal of Social Policy*, 42(1), 73-89.
- Loopstra, R., Lambie-Mumford, H., & Patrick, R. (2018). Family hunger in times of austerity: families using food banks across Britain. Sheffield: Sheffield Political Economy Research Institute.
- Mello, J. A., Gans, K. M., Risica, P. M., Kirtania, U., Strolla, L. O., & Fournier, L. (2010). How is food insecurity associated with dietary behaviors? An analysis with low-income, ethnically diverse participants in a nutrition intervention study. *Journal of the American Dietetic Association*, 110(12), 1906-1911.
- Ohls, J., Saleem-Ismail, F., Cohen, R., & Cox, B. (2002). The Emergency Food Assistance System-findings from the provider survey, volume II (No. 1481-2016-121358).
- Riches, G. (2002). Food banks and food security: Welfare reform, human rights and social policy. Lessons from Canada? *Social Policy & Administration*, 36(6), 648-663.
- Riches, G. (2011). Thinking and acting outside the charitable food box: hunger and the right to food in rich societies. *Development in Practice*, 21(4-5), 768-775.

- Riches, G., & Tarasuk, V. (2014). Canada: Thirty years of food charity and public policy neglect. In *First World Hunger Revisited* (pp. 42-56). Palgrave Macmillan UK.
- Rizvi, A., Wasfi, R., Enns, A., & Kristjansson, E. (2021). The impact of novel and traditional food bank approaches on food insecurity: a longitudinal study in Ottawa, Canada. *BMC Public Health*, 21(1), 1-16.
- Seivwright, A. N., Callis, Z., & Flatau, P. (2020). Food insecurity and socioeconomic disadvantage in Australia. *International Journal of Environmental Research and Public Health*, 17(2), 559.
- Sonja, S., & Rueya, C. (2011), "Food Service Industry Spotlight 2011", Sis International Research, retrieved from <https://www.sisinternational.com/food-service-industry/>.
- Tarasuk, V. S., Beaton, G. H. (1999). Household food insecurity and hunger among families using food banks. *Canadian Journal of Public Health*, 90(2). 109 – 113.
- Tarasuk, V. (2001). A critical examination of community-based responses to household food insecurity in Canada. *Health Education & Behaviour*, 28(4), 487e499.
- Tarasuk, V., & Eakin, J. M. (2003). Charitable food assistance as symbolic gesture: An ethnographic study of food banks in Ontario. *Social Science & Medicine*, 56, 1505 – 1515.
- Tarasuk, V., Dachner, N., Hamelin, A. M., Ostry, A., Williams, P., Bosckei, E., ... & Raine, K. (2014). A survey of food bank operations in five Canadian cities. *BMC Public Health*, 14, 1-11.