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Belinda Crawford

University of New South Wales

Rowena Yamazaki

Sydney Local Health District

Elise Franke

South Western Sydney Local Health District

Sue Amanatidis

Sydney Local Health District

Jioji Ravulo

University of Wollongong, jioji@uow.edu.au

See next page for additional authors

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Is something better than nothing? Food insecurity and eating patterns of young people experiencing homelessness

Abstract

Objective: Food insecurity is an increasing problem in marginalised groups that affects diet quality. We aimed to examine the extent of food insecurity and the eating patterns of young people accessing support from specialist homelessness services. **Methods:** A cross-sectional survey with a researcher-administered food frequency and food insecurity questionnaire was undertaken with 50 young people experiencing homelessness, aged 14-26 years. Participants were recruited from 11 specialist homelessness services providing support and accommodation for young people in central and south-western Sydney. **Results:** Food insecurity was a recent experience for 70% of participants. Eighty-five per cent of participants living independently experienced food insecurity, compared to 66% of young people in supported accommodation. Consumption of core food groups was low, as almost all participants did not meet recommended daily servings of vegetables and breads and cereals. Consumption of sugar-sweetened soft drinks was high. **Conclusions:** Food insecurity and poor diet quality are salient issues for this group of young people accessing support from specialist homelessness services. **Implications:** These findings highlight the need for a greater focus on advocacy and policy action to increase social supports and improve food security and nutrition for young people experiencing homelessness.

Keywords

people, something, experiencing, better, homelessness, than, nothing?, food, insecurity, eating, patterns, young

Disciplines

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Authors

Belinda Crawford, Rowena Yamazaki, Elise Franke, Sue Amanatidis, Jioji Ravulo, and Siranda Torvaldsen

Is something better than nothing?

Food insecurity and eating patterns of young people experiencing homelessness

Belinda Crawford,^{1,2} Rowena Yamazaki,³ Elise Franke,⁴ Sue Amanatidis,³ Jioji Ravulo,⁵ Siranda Torvaldsen²

Australia has long been described as a food-secure country, with a plentiful food supply.¹ However, high rates of food insecurity have been reported in marginalised groups who consistently have inadequate resources to access minimum amounts of food and essential items in socially acceptable ways.^{2,3} Australian research on food insecurity in disadvantaged urban areas,⁴ Aboriginal and Torres Strait Islander people,⁵ newly arrived refugees⁶ and people experiencing homelessness⁷ has shown that these groups often experience distress, anxiety and persistent hunger from inadequate food access.

The nutritional consequences of food insecurity are particularly important for children, young people and pregnant women, as adequate nutrition is required for optimal growth and development.^{8,9} Chronic food insecurity and persistent hunger adversely affect diet quality and weight status and may result in malnutrition, physical disability, underweight or overweight and obesity.^{10,11} While the diets of adolescents often do not meet basic nutritional guidelines,¹² little is known about food insecurity in disadvantaged young people in Australia. Young people experiencing homelessness are a group at risk of food insecurity, because of a combination of high nutritional needs, a reliance on others for food or living independently at an early age without adequate life skills training.^{7,13}

Abstract

Objective: Food insecurity is an increasing problem in marginalised groups that affects diet quality. We aimed to examine the extent of food insecurity and the eating patterns of young people accessing support from specialist homelessness services.

Methods: A cross-sectional survey with a researcher-administered food frequency and food insecurity questionnaire was undertaken with 50 young people experiencing homelessness, aged 14–26 years. Participants were recruited from 11 specialist homelessness services providing support and accommodation for young people in central and south-western Sydney.

Results: Food insecurity was a recent experience for 70% of participants. Eighty-five per cent of participants living independently experienced food insecurity, compared to 66% of young people in supported accommodation. Consumption of core food groups was low, as almost all participants did not meet recommended daily servings of vegetables and breads and cereals. Consumption of sugar-sweetened soft drinks was high.

Conclusions: Food insecurity and poor diet quality are salient issues for this group of young people accessing support from specialist homelessness services.

Implications: These findings highlight the need for a greater focus on advocacy and policy action to increase social supports and improve food security and nutrition for young people experiencing homelessness.

Key words: homeless young people, food insecurity, diet quality

Young people experiencing homelessness are described as a diverse, voiceless and often invisible group, inclusive of young people living on the street as well as those in temporary and medium to long-term supported accommodation.¹⁴ Census data indicate that more than half of the 105,000 homeless people in Australia are children and young people, aged less than 25 years.¹⁵ Specialist homelessness services foster stability, positive relationships and life skills training,¹³ thereby providing a unique and valuable setting to target food insecurity and

nutrition before young people transition to independence.

There is a paucity of research investigating food security and nutrition in young people accessing support from specialist homelessness services, as previous studies have primarily focused on young people living on the street. A group of international studies^{10,11,16–18} and one Australian study⁷ have described widespread food insecurity and nutritional inadequacy, characterised by inadequate intake of staple food items essential for health and wellbeing and

1. NSW Public Health Officer Training Program, NSW Ministry of Health, New South Wales

2. School of Public Health and Community Medicine, UNSW Medicine, University of New South Wales

3. Community Health Service, Sydney Local Health District, New South Wales

4. Youth Health Service, South Western Sydney Local Health District, New South Wales

5. School of Social Sciences and Psychology, University of Western Sydney, New South Wales

Correspondence to: Ms Belinda Crawford, NSW Ministry of Health, Locked Bag 961, North Sydney, NSW 2059; e-mail: belinda.crawford@gmail.com

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increased consumption of energy-dense, nutrient-poor foods such as crisps and confectionery. Research on the nutrition of young people leaving care found that most considered that they did not eat enough fresh, healthy food¹⁹ or felt that they were not eating the right types of foods.²⁰ Although increased consumption of energy-dense, nutrient-poor food items is common in adolescence and early adulthood,²¹ food insecurity and homelessness magnify nutritional vulnerability and the ability to participate in an active life.

This study aimed to:

1. Quantify the extent of food insecurity experienced by young people accessing support from specialist homelessness services over:
 - The past 30 days
 - The previous 12 months.
2. Examine the eating patterns of these young people, particularly in relation to consumption of core food items and 'extra' foods, such as energy-dense, nutrient-poor food items and sugar-sweetened soft drinks, and food behaviours.

Methods

A cross-sectional survey was conducted from January to July 2011 in 11 specialist homelessness services in central and south-western Sydney. Two crisis accommodation services and nine medium- to long-term accommodation services were purposefully selected from 24 specialist homelessness services in New South Wales (NSW) to reflect the social, cultural and linguistic diversity of young people experiencing homelessness in a metropolitan area. All young people aged 14–26 years who accessed the services were eligible to participate in the study. As this work was done on a relatively small budget, participation in the study was limited to young people accessing support from any of the 11 selected specialist homelessness services. Most of these services had a small number of beds, with an average length of stay of 6–24 months,²² which limited the number of potential participants. Interviews were scheduled to coincide with drop-in activities, group work and case management which young people would attend at the service, thereby maximising participation in the study.

This study was approved by the Human Research Ethics Committees of Sydney Local Health District and the University of New

South Wales. Informed consent was gained before the commencement of the survey. Young people under 16 years of age had additional consent provided by their youth worker as guardian. All participants were given a \$20 supermarket voucher for their time and participation.

A 27-item questionnaire was adapted from a culturally relevant, standardised tool that has been used in recent population surveys.^{12,21} It included a 13-item food frequency questionnaire to gain information on consumption of core food items and 'extra' energy-dense, nutrient-poor food items and sugar-sweetened soft drinks, and food behaviours. An additional nine questions were from the *Child Food Security Survey Module*²³ adapted to measure food insecurity for the young person over the previous 30 days, including situations of worry or anxiety about acquiring food, a lack of money to buy food and persistent hunger. This survey tool has been shown to be a reliable and valid measure of individual-level food security in high-school students in the US.²³

A single item measure of individual and household level food insecurity over the past 12 months was included, as this question has been consistently used in national and state population health surveys.²⁴ Questions used to measure food insecurity are provided in Table 1.

The questionnaire was developed with the project advisory committee and was designed to be short to maximise participation and minimise respondent burden. Survey tools were pilot tested on four young people at one specialist homelessness service prior to the commencement of the study. The structure of the questionnaire and wording of some items were modified following this process. Four members of the research team verbally administered all

questionnaires. All were trained and used instruction sheets to ensure consistent administration across all sites. A pictorial food guide was also developed to aid quantification of food and drinks consumed.

Nutrition data were derived from the food frequency component of the questionnaire. Responses to core food items were dichotomised into meeting (high consumption) or not meeting (low consumption) the lower limit of thresholds specified in the *Australian Guide to Healthy Eating*.²⁵ All core food items were included in the analysis except for 'meats and alternatives', as the items included in this category were wider in scope and therefore did not correspond with the *Australian Guide to Healthy Eating*. As this guide was also not appropriate for 'extra' energy-dense, nutrient-poor foods, sugar-sweetened soft drinks and food behaviours, thresholds were based on previous research as reported by Innes-Hughes and colleagues.²⁴ Data were categorised according to age and gender groups, as the *Australian Guide to Healthy Eating* differs for adolescents (12–18 years) and adult (19 years and older) males and females.

The food security status of participants was measured in three main ways. Food insecurity over the past 30 days was determined by two or more affirmative responses ('sometimes' or 'a lot') to the nine-item questionnaire. Respondents with low (between two and five affirmative responses) and very low (six or more affirmative responses) food security were classified as food insecure. Respondents with high (zero affirmative responses) and marginal (one affirmative response) food security were classified as food secure.²³ Food insecurity over the past 12 months was categorised by an affirmative response ('sometimes' or 'a lot') to the question "In

Table 1: Items used to measure food security in 50 young people experiencing homelessness.

Reference Period	Question*
Last month (30 days)	Over the last month, did you WORRY that food would run out before you got money to buy more? Did the food that you bought RUN OUT and you didn't have money to get more? Did your meals only include a few kinds of CHEAP FOODS because you were running out of money to buy food? How often were you not able to eat a BALANCED MEAL (i.e. containing meat, bread/cereals, vegetables, fruit and/or dairy) because you didn't have enough money? Have you had to EAT LESS / EAT SMALLER MEALS because you didn't have enough money for food? Did you have to MISS A MEAL because you didn't have enough money for food? Were you HUNGRY but didn't eat because you didn't have enough food? How often would you go a WHOLE DAY without eating because you didn't have enough money for food? How often did you have to FIND FOOD to eat from OTHER PLACES (e.g. friends, soup kitchens)?
Last 12 months	In the last 12 months, were there any times that you ran out of food and couldn't afford to buy more?

* Response set for all items: A lot, sometimes, never

the last 12 months, were there any times that you ran out of food and couldn't afford to buy more?".

Data were analysed using IBM SPSS Statistics Version 19.0 (IBM Corporation, New York) and checked by an independent researcher. Food insecurity status over the past 30 days was used for analysis, as this comprehensive set of indicators has been shown to provide more accurate responses than the single item measure of food insecurity over the past 12 months.^{4,23}

Results

Fifty young people were approached and all agreed to participate in the study. Sociodemographic characteristics of the sample population are listed in Table 2. More than half (58%) the participants were female and had an average age of 20 years, living in medium-term supported accommodation, with an average length of stay of 16 weeks. Participants identified with a diverse range of cultural backgrounds including Australian (34%), Aboriginal and/or Torres Strait Islander (12%), African (24%) and European (3%).

Seventy per cent of participants reported food insecurity over the past 30 days, of whom 40% were very food insecure (Figure 1). Additionally, 58% of respondents reported being food insecure on the single item measure of food insecurity over the past 12 months.

More than half (66%) the participants living in supported accommodation services reported food insecurity over the past month, with an even higher rate of 85% reported in the group of young people living in community housing, private rentals or staying with friends and family.

Most young people in this study did not consume minimum amounts of core food

groups recommended by the *Australian Guide to Healthy Eating* for meeting essential dietary requirements (Table 3). Overall, 90% of participants did not meet the minimum recommended servings of vegetables per day, 30% of whom reported that they ate less than one serve of vegetables each day. Consumption of fruit was higher; however, 30% of participants failed to have the required servings, despite fruit juice being included. Consumption of breads and cereals was also consistently poor as 82% did not meet recommended daily servings. Additionally, 42% of participants did not consume adequate milk and dairy products each day. Patterns of consumption for these core food items were similar for adolescents (14–18 years) and adult males and females (19–26 years).

More than 30% of young people in this study reported increased intake of 'extra' energy-dense, nutrient-poor food items. Consumption of sugar-sweetened soft drinks was high; more than half (68%) of participants reported that they had more than two 250 mL cups of soft drink per week. One-third of these participants reported having more than two cups of soft drink per day. Additionally, 30% of participants reported that they had more than two serves of crisps and salty snacks per week.

Meal skipping was also prevalent among this sample of young people; 64% of participants reported missing a meal more than four times per week. Skipping breakfast was more common than other meals; 54% of young people reported skipping breakfast, compared to 30% who missed lunch and 6% who missed dinner.

Discussion

A high level of food insecurity was observed in this sample of young people accessing

support from specialist homelessness services, as 70% of participants reported being food insecure over the past 30 days. This portrayal of food insecurity did not appear to be transitory, as 58% of participants also reported food insecurity over the previous 12-month period. This is more than 10 times higher than the Australian rate of 5.2% across all socioeconomic groups²⁶ and higher than the prevalence of food scarcity in disadvantaged and Aboriginal and Torres Strait Islander populations.^{4,27} A continuum of food insecurity by level of support was also evident, as 85% of participants living independently reported being food insecure compared to 66% of young people living in supported accommodation.

In NSW, specialist homelessness services are encouraged to consider food and nutrition in their service provision;¹³ however, there has been no quality framework, monitoring or training to assist services to do so. While contact with these services provided some temporary protection for young people in care, this support does not appear to be consistent or transferred to those living independently. These results show the poverty and hunger that underpins food

Table 2: Key sociodemographic characteristics of 50 young people experiencing homelessness.	
Demographic variable	n (%)
Age (years)	
Mean	20
Range	14 - 26
14-18	16 (32%)
19-26	34 (68%)
Gender	
Male	21 (42%)
Female	29 (58%)
Accommodation	
Youth accommodation service	35 (73%)
Community housing	8 (17%)
Private rental / family / friends	5 (10%)
Length of residence	
Median (weeks)	16
0-3 months	23 (46%)
4-6 months	8 (16%)
7-9 months	4 (8%)
10-12 months	2 (4%)
> 12 months	13 (26%)
Unknown	2 (4%)
Ethnicity	
Australian	17 (34%)
Aboriginal and/or Torres Strait Islander	6 (12%)
New Zealand	3 (6%)
African	12 (24%)
European	2 (4%)
Other	10 (20%)

insecurity persists, despite the provision of shelter and support from specialist homelessness services.

The measurement of food insecurity in this study was strengthened by the use of two tools: a nine-item measure of food insecurity over a 30-day reference period;²³ and a single indicator of food insecurity²⁴ that allowed comparison with national population data. The result of a lower prevalence of food insecurity over a 12-month reference period is consistent with previous Australian research,⁴ as this measure is likely to underestimate the true prevalence of food insecurity. The set of nine indicators used to measure food insecurity over the past 30-days includes additional information on the experience of food insecurity and has been shown to provide more reliable responses than a single-item measure.²³ Although validated for high school students in the US, the nine-item measure of food security was adapted for this study as it enabled exploration of issues associated with food security in a transitory group of young people from 14–26 years of age, while minimising the potential for respondent burden that may have been associated with longer adult tools such as the 18-item United States Department of Agriculture Food Security Survey Module (USDA-FSSM).²⁸ Additionally, all questions were designed in collaboration with the

project advisers, including young people and youth workers, and were pilot tested before the study began.

A study limitation was the small sample of 50 participants. The sample size reflects the limited bed availability in selected specialist homelessness services. Attempts were made to recruit all young people present at the service on the day the questionnaires were administered. The participation rate was 100%.

Several studies have identified nutritional vulnerability in young people experiencing homelessness, often linked to a reliance on emergency food relief,^{7,17,18} or others for food and living independently at a young age without adequate knowledge and skills.^{19,20} However, our study raises questions about the eating patterns of young people accessing support from specialist homelessness services, a group that should have regular opportunities and assistance to access appropriate foods.¹³ Youth accommodation services in NSW differ in terms of meal provision; however, most cater at least one meal per day. Temporary or crisis accommodation services generally provide all meals, while semi-independent accommodation services organise regular meals supported by meal preparation assistance, supermarket vouchers and weekly access to food rescue programs.²⁹ It is concerning that most young people in this study did not consume adequate quantities of all core foods recommended for meeting daily dietary requirements.

It is well known that a reduced intake of fruit and vegetables is common in adolescence and early adulthood, however consumption of these essential food items was well below the pattern observed in a survey of secondary school students in NSW.¹² In contrast, consumption of pre-packaged convenience foods and sugar-sweetened soft drinks was much higher than was seen in the same state survey. This difference was particularly evident for soft drinks, as one-third of participants reported having two or more cups per day, compared with only 5% of high school students.¹² The high rate of food insecurity reported by participants may have contributed to this result, as research has shown that people experiencing relative disadvantage and food insecurity may be less likely to purchase healthy, fresh foods and instead rely on energy-dense foods and soft drinks as an inexpensive source of energy.³⁰ Finally, skipping meals was frequently reported by participants –

particularly breakfast. This finding is higher than that reported in the NSW survey of high school students, where 14% of boys and 26% of girls in year 10 reported that they ate breakfast fewer than twice a week. However, in keeping with our findings, this study also found that students of low socioeconomic background were less likely to report having breakfast than students of middle and high socioeconomic backgrounds.¹² Regularly skipping breakfast or other meals may indicate that the young people in this study do not have adequate nutritional intake to meet their daily physiological requirements for growth, development and wellbeing.²⁵

Limited consumption of core foods and increased intake of energy-dense, nutrient-poor foods and soft drinks in this group of young people may reflect the abundance, affordability and convenience of these options. Market basket surveys across Australia have provided evidence of a cost disparity in food prices, as fresh and healthy foods are consistently more costly than processed convenience items.^{31,32} Financial constraints and the high cost of fresh foods have been shown to be a primary barrier to food security and a healthy diet, particularly for socioeconomically disadvantaged groups. Research has also shown reduced availability and quality of healthy foods and increased availability of unhealthy and fast food options in low socioeconomic and disadvantaged localities.^{33–35} This unhealthy food environment may have contributed to the high rates of food insecurity and nutritional vulnerability evident in this group of young people experiencing homelessness.³⁵

The predominance of food insecurity suggests that the current social safety net in Australia is inadequate to meet the needs of this group of young people. Currently, a young single person on a Newstart allowance may receive a maximum of \$255 a week in payments, while young single people receiving the Youth Allowance may receive a maximum of \$207 a week.³⁶ After paying for accommodation, a person living on either Newstart or Youth Allowance payments may have only a small sum of money left for utilities, bills and groceries, thereby leading to a period of food insecurity.³⁷ The onus often falls on welfare agencies and specialist homelessness services, many of whom are under-resourced, to provide young people with the required level of support, education and life-skills training.¹³ Additionally, there are growing concerns about proposed changes to social welfare in Australia, with

Table 3: Unfavourable dietary habits of 50 young people experiencing homelessness.

Thresholds of dietary intake	n (%)
Vegetables	45 (90%)
< 4 serves / day for adolescents	
< 5 serves / day for adults	
Fruit	15 (30%)
< 3 serves / day for adolescents	
< 2 adults / day for adults	
Breads and cereals	41 (82%)
< 5 serves / day for adolescents and adult females	
< 6 serves / day for adult males	
Dairy	21 (42%)
< 3 serves / day for adolescents	
< 5 serves / day for adults	
Hot chips	15 (30%)
> 2 serves / week for all groups	
Crisps and salty snacks	15 (30%)
> 2 serves / week for all groups	
Takeaway	17 (34%)
> 2 serves / week for all groups	
Soft drinks	34 (68%)
> 2 cups / week for all groups	
Skipping meals	32 (64%)
> 4 times / week for all groups	
Skipping breakfast	27 (54%)
> 4 times / week for all groups	

unemployed young people having to wait six months to access either Newstart or Youth Allowance payments. These measures would place considerable financial pressure on young people, potentially increasing poverty, hardship and homelessness and contributing to chronic food insecurity.³⁶

Further investment is required to build the capacity of specialist homelessness services as a setting to implement health promotion programs and provide young people with essential life skills in their transition to independence. Youth participation should be integral to this process, in order to develop sustainable and socially inclusive programs that support and empower young people to access healthy foods. Additionally, collaboration between local government, health, welfare and the youth sector is required to investigate food provision and trial interventions that focus on improving food access for disadvantaged young people. A greater focus on advocacy and policy action is also required to increase the social safety net and highlight food security as a target area to improve the health and welfare of disadvantaged young people.

Conclusions and implications

This study demonstrated high levels of food insecurity in a sample of young people accessing support from specialist homelessness services. The majority of young people in this study did not meet minimum recommended guidelines for core foods, such as vegetables and breads and cereals, but had high consumption of sugar-sweetened soft drinks. This high level of nutritional vulnerability is concerning, as sufficient nutrition is required for growth and development. Further research and investment is required to investigate food provision and build the capacity of specialist homelessness services to improve food access for young people.

Food insecurity is a complex problem and a multi-strategic, interdisciplinary approach with youth participation is required to advocate for increased social supports and improved food access and diet quality for young people experiencing homelessness.

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