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**Why do women of low socioeconomic status have poorer dietary behaviours than women
of higher socioeconomic status?
A qualitative exploration**

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Abstract

In developed countries, persons of low socioeconomic status (SES) are generally less likely to consume diets consistent with dietary guidelines. Little is known about the mechanisms that underlie SES differences in eating behaviours. Since women are often responsible for dietary choices within households, this qualitative study investigated factors that may contribute to socioeconomic inequalities in dietary behaviour among women. Semi-structured interviews were conducted with 19 high-, 19 mid- and 18 low- SES women, recruited from Melbourne, Australia, using an area-level indicator of SES. An ecological framework, in which individual, social and environmental level influences on diet were considered, was used to guide the development of interview questions and interpretation of the data. Thematic analysis was undertaken to identify the main themes emerging from the data. Several key influences varied by SES. These included food-related values such as health consciousness, and a lack of time due to family commitments (more salient among higher SES women), as well as perceived high cost of healthy eating and lack of time due to work commitments (more important for low SES women). Reported availability of and access to good quality healthy foods did not differ strikingly across SES groups. Public health strategies aimed at reducing SES inequalities in diet might focus on promoting healthy diets that are low cost, as well as promoting time-efficient food preparation strategies for all women.

Key Words: socio-economic status, women, dietary behaviours, mechanisms, cost

Introduction

Compared with those of low socioeconomic status (SES), individuals of high SES tend to follow a diet that is more in line with dietary guidelines for health. For example, lower SES individuals are more likely to consume diets high in fat, low in micronutrient density, and to have lower intakes of fruit and vegetables (Davey Smith & Brunner, 1997; Giskes, Turrell, Patterson, & Newman, 2002a; Mishra, Ball, Arbuckle, & Crawford, 2002; Smith & Baghurst, 1993). As a result, studies repeatedly find that people of low SES groups possess nutrient intakes and dietary patterns that increase the risk of diet-related disease and overall health inequalities (Kaplan & Keil, 1993; Turrell & Mathers, 2000).

A focus on SES and women's diets is important for a number of reasons. Firstly, the diets of women are qualitatively and quantitatively different from those of men. For example, women's diets are usually more consistent with dietary guidelines, with women more likely to report that they purchase, prepare, cook and consume food that is considered healthier (Steele, Dobson, Alexander, & Russell, 1991; Turrell, 1997; Worsley, 2002). In addition, despite increased participation in the labour market in recent years, women are still largely responsible for the provision of food in households (Lester, 1994). A 'carer role' played by women may see them adopt the role of food gatekeeper, a responsibility that is especially evident in families with children (Coveney, 2002). Hence many women are likely to be responsible not only for their own diets, but also for those of their families.

Even though SES differences in diet are relatively well documented, little is known about the mechanisms underlying the SES-diet differentials amongst women. Studies on the correlates on dietary behaviour have collectively identified a range of individual, social and environmental influences on eating. However, the extent to which each of these influences

varies by SES, and whether SES differentials in some or all of these influences explain SES variations in women's dietary behaviours, remains relatively unexplored. Evidence on the key influences on eating behaviours and diet is summarised briefly below.

Individual influences on diet include taste, knowledge, beliefs and values, and self-efficacy. Information is limited in relation as to whether taste preferences vary by SES. One Australian study by Giskes et al. (Giskes, Turrell, Patterson, & Newman, 2002b) found that taste preference as a perceived barrier for fruit and vegetable intake did not vary by household income. A number of studies have found evidence that nutrition knowledge differs significantly between socio-demographic groups, with poorer knowledge among those of lower SES (Buttriss, 1997; Crawford & Baghurst, 1990; Hansbro, Bridgwood, Morgan, & Hickman, 1997; Parmenter, Waller, & Wardle, 2000). The beliefs and values applied when making food choices have also been shown to differ by SES, with middle class mothers more likely than mothers of lower SES to limit foods considered unhealthy, both in their own and their children's diets (Hupkens, Knibbe, & Drop, 2000).

It is increasingly recognised that choices in relation to food and eating behaviours are not solely individual matters, unconstrained by social and environmental influences. The general social circumstances of peoples' lives are likely to influence their eating behaviours (Dowler, 2001). Past research indicates that when people eat alone, levels of food consumption tend to be lower than when people eat with others or in a group setting (Nestle et al., 1998). Family and friends may also be a source of role-modeling and peer pressure for consuming higher-fat foods or for trying new foods (Nestle et al., 1998). Within families, women's own food intakes may be negatively influenced as they often sacrifice their own food preferences for those of other family members, particularly their children (Charles & Kerr, 1988; Lupton,

2000; Santich, 1995). In addition, meals have become less traditional as social trends develop by which women are increasingly participants in the workplace (Lester, 1994).

As well as social environmental influences, diet is likely to be influenced by factors in the physical environment. Evidence suggests that the cost and accessibility of food in the local neighbourhood, and the physical environment where households are located influence people's eating behaviours (Dowler, 2001), although little research has investigated these issues (Diez Roux, 2000, 2003; Morland, Wing, & Diez Roux, 2002; Sooman, Macintyre, & Anderson, 1993). Emerging evidence suggests that access to quality fruit, vegetables and other fresh foods in the local environment is poorer in areas of lower SES, and that people of low SES are more reliant on smaller shops where food prices are often higher than those in large supermarkets (Sooman, MacIntyre, & Anderson, 1993). However, a recent Australian study examining food purchasing behaviour found that areas of varying SES did not appear to differ on the basis of food availability, accessibility, or affordability (Turrell, Blakely, Patterson, & Oldenburg, 2004). Cost is a strong influence on food purchases (Cox, Anderson, Lean, & Mela, 1998; Drewnowski, 2003; Quan, Salomon, Nitzke, & Reicks, 2000; Sooman, MacIntyre et al., 1993) and given that persons of low SES often have more limited budgets, healthier foods such as fruit and vegetables may be overlooked in favour of less healthy, more energy-dense options (Drewnowski & Specter, 2004; Giskes et al., 2002a).

In summary, individual, social and environmental factors influence women's eating behaviours and diet. There is evidence that some of these influences are socio-economically patterned. However, whether socioeconomic variations in these factors, explain SES differences in women's diets is presently not known. The aim of this study was to investigate why women from low SES groups have poorer dietary behaviours (for example, more

frequently consume foods high in fat, such as takeaway foods, and less frequently consume fruits and vegetables), than women from higher SES groups. The study used an ecological perspective (Stokols, 1992), taking into account the social and environmental supports and constraints on individual choices and behaviour.

Methods

Study design:

Face-to-face interviews were used to obtain an understanding of the women's personal knowledge, beliefs, eating attitudes and behaviours, and their perceptions of the social and environmental influences on these. Since this is a relatively unexplored area, a qualitative approach was considered most appropriate (Hudelson, 1996). A semi-structured interview format was used to capitalize on the richness of the women's responses while allowing the researcher to gain as complete and detailed an understanding as possible of the topic at hand. The Deakin University Human Research Ethics Committee approved the study.

Selection of participants:

For logistical reasons, the study was restricted to a geographical area within 25km of the Melbourne central business district. Based on 1996 Census data, the Australian Bureau of Statistics has assigned a SEIFA (Socioeconomic Index for Areas) score, a measure of the area's relative disadvantage based on area measures of income, education, unemployment and occupation, to all suburbs with a postcode (Australian Bureau Statistics, 1998). Suburbs comprise geographic areas gazetted by the Geographic Place Name authority of each Australian state/ territory (Australian Bureau Statistics, 1998). All suburbs within the study area were ranked according to SEIFA score, and then categorised into tertiles corresponding

to low, mid and high SES. One suburb was randomly selected from each of the three tertiles to provide the sampling frame.

Fifty-six women were recruited into the study (19 women from the high SES area; 19 women from the mid SES area; 18 women from the low SES area). The socio-demographic characteristics of the sample are presented in Table 1. Women were recruited using methods such as letterbox drops, community advertising, 'snowball' techniques, and the electoral roll (to supplement initially low numbers of women from the low SES area), and invited to take part in an interview. The sample was restricted to age 18-65 years, since women outside this age range would have markedly different life influences on their eating behaviours (e.g. school, retirement).

Insert Table 1 here

Research Instrument:

A semi-structured interview schedule was developed based on a review of the literature (see Table 2 for sample questions). This included a written list of open-ended questions to be covered during the interview. The issues of major research interest and importance in the interviews were what each of the women perceived to be the most influential factors that affected their dietary behaviours. Broad questions on the women's general health and lifestyle were asked initially to build rapport with the women and start them thinking about their lifestyle and diet.

Further questions were then asked about the women's eating patterns, including types of main meals and snacks consumed; typical fruit and vegetable consumption per day (as an indicator

of a healthy diet); consumption of ‘takeaway’/ fast foods and other meals consumed away from home; attitudes towards eating, including the desire to change any aspects of eating patterns and barriers to doing so. Additionally, the key considerations underlying food purchasing decisions were discussed such as the importance of their health, the preferences of other family members, and cost.

Insert Table 2 here

Procedure:

One of four trained female researchers individually interviewed the women at a time and place that was most convenient to the participants. The interview schedule was pilot-tested on a convenience sample of four women before it was audited to the participants. All interviewers were trained together to ensure consistency in interviewing style and use of probes. Interviews were audiotaped with participants’ permission and lasted approximately 45-60 minutes. All interviews were transcribed verbatim. The women who participated were presented with a \$20 dollar gift voucher for their time.

Data Analysis:

Data coding was undertaken by the first author and three research assistants, and subsequent data analysis was undertaken by the first author. Thematic analysis was used to identify a series of coding categories and sub-categories that emerged from the interviews (Minichiello, Sullivan, Greenwood, & Axford, 2003). A hierarchical numerical coding scheme was developed to assist the researchers in the identification and analysis of the themes. The codes were applied to all transcripts. A random sample of four transcripts were cross-coded to check for inter-coder agreement. Data was entered into NUD*IST (QSR International, 2002) to

facilitate analysis of themes and extraction of quotes. Quotes were selected to reflect the different influences of women's dietary behaviours. The specific quotes were selected on the basis that they illustrated a variety of response types, including responses which were typical or common; unusual responses; responses which represented a concise summary of a discussion topic; or responses showing a range of viewpoints on a topic.

An area-based index of SES was used to recruit women of different SES into this study, and the initial data analysis therefore compared the differences and similarities between the three groups of women on the basis of this SES measure. An analysis of data by individual level SES, such as women's education level, was also considered. However, as Table 1 demonstrates, the socio-economic characteristics of the women in the sample showed substantial overlap with the area-based indicator. Therefore this area indicator was retained for analysis.

Results

Eight broad themes relating to dietary behaviours were identified using thematic analysis. These were: eating behaviours; taste vs. health considerations; traditional vs. novel eating practices; family influences; peer influences; time constraints; the local food environmental; and cost considerations.

Dietary behaviours

Fruit and vegetable consumption

Responses to questions about typical fruit and vegetable consumption suggested that vegetables were most commonly served in the evening meal whereas fruit generally did not form part of the main course and was only consumed as a dessert or a snack. A number of

aspects of fruit and vegetable consumption seemed to vary across the SES groups. For example, women of low SES were more likely than those from other SES groups to mention that fruit was sometimes overlooked for a less healthy treat:

“Every night we have something to snack on...occasionally we have fruit at night, but usually we have a bad snack and fruit!” (20 years old, low SES)

In regards to vegetables there were some SES differences in the reported types typically chosen. Women of low SES more commonly reported eating more traditional vegetables such as potatoes, peas and pumpkins, whereas women of mid and high SES referred to more novel types (e.g. eggplant, zucchini, and capsicum), as well as a greater variety of vegetables. The quotes below were provided in response to a question on the number of different types of vegetables consumed in a typical day.

“I'd say about 6 or 7, I suppose. When I do a salad at tea, I try and chuck in everything. We do tend to eat a wide variety.” (32 years old, high SES)

“Apart from the potatoes and pumpkin, I don't (eat the) green ones.” (20 years old, low SES)

Takeaway consumption

Low SES women talked more about eating takeaway foods such as McDonalds, Red Rooster and KFC. Meanwhile, mid and high SES women's responses suggested that takeaway food was limited or consumed relatively infrequently, and the types of takeaway consumed were typically pizza or Asian takeaway (e.g. Thai or Chinese).

“The main takeaways, like McDonalds, KFC, Red Rooster, I try to limit to once a week, mostly from the cost point of view.” (37 years old, low SES)

“We don't eat much takeaway. Pizza would be the thing because the boys like pizza and I can have pasta. My husband and I like Thai - takeaway probably once every three weeks.” (46 years old, high SES)

Women discussed a number of individual factors that influenced food choice. These factors included taste and health considerations, as well as traditional and novel eating practices.

Taste vs. health considerations

There appeared no difference between the SES groups in relation to the influence of taste on food choice. The following responses were given to the question on the main considerations underlying food purchasing choices.

“Something that we can all eat. So I don't have to prepare different meals, just something that will appeal to all the tastes, that's probably the main thing I think about.” (38 years old, low SES)

“If I'm cooking it would be definitely taste or health.” (19 years old, high SES)

Although taste was often mentioned as a purchasing consideration, it was rarely described as the predominant reason for purchasing particular food items. Health, cost and ease of

preparation were mentioned as more important purchasing considerations in preference to taste.

“I would take into consideration how healthy the food is....and I guess price a little bit.” (27 years old, mid SES)

“Something quick, and fairly healthy, fairly low fat, usually I try and cook one meal satisfying family and me...” (38 years old, high SES)

Traditional vs. novel eating practices

Compared with women of mid and high SES, the reports of eating behaviours provided by women of low SES demonstrated stronger “traditional” beliefs about food-related practices. For example, some women still endorsed the beliefs and values that they were brought up on as children:

“I like any food; I was brought up to eat everything on the plate so now as an adult there's nothing that I really don't like. I'll eat anything.” (32 year old, low SES)

“I don't usually eat because I'm hungry; I eat because it's time to eat, something that I guess I was brought up with.” (22 years old, low SES)

In contrast, high SES women appeared more willing to experiment with dietary change and new recipes than were low SES women. High SES women also seemed to rate weight considerations as more important influences on their eating than women of low SES.

“Sometimes I feel like I wish I wasn't so strict on myself. I've always watched what I eat and you look at your friend and she's hoeing into something like chips and skinny as anything.” (23 years student, high SES)

As opposed to:

“If I've got a full plate I won't leave until I've eaten it.” (22 years old, low SES)

Social factors such as interactions with family and friends and time constraints were important on influences on food choice, as the following section illustrates.

Family influences

Women were largely responsible for domestic duties, and were likely to be the buyers and preparers of food for the household. Those young women who still lived at home generally commented that they or their mother did the majority of the cooking. Women of mid and high SES more frequently discussed the need to prepare and cook what other family members, especially their children, preferred to eat.

“I find that if my kids pick the stuff, then they're happier to have it in their meals.” (46 years old, high SES)

“I do sometimes think that my food comes after everyone else's. I tend to think of what to give them first, and then I'll tend to think about myself afterwards.” (46 years old, high SES)

When the cooking was shared amongst the family, a partner's choice of what to cook was often seen as a barrier to healthy eating among women of low and mid SES. For example, the following two women described how their partners did not always consider health factors when deciding what to eat or cook.

“My partner refuses to compromise on taste, like I'm trying to make something low-fat, it's just like 'it's not as good as the real stuff, it's garbage' and just refuses to eat it.”
(33 years old, mid SES)

“If I'm at my house I'll have a good meal, I'll have a healthy meal, but if I'm at my boyfriend's house I'll have a junk meal.” (20 years old, low SES)

Peer influences

It was common for the mid and high SES women to report eating a meal at a friend's house once or twice a week. For some women this was seen as a barrier to healthy eating, as the types of food and the quantity were unlike those consumed at home.

“I don't tend to eat too much in any particular meal, unless I go over to someone's place for dinner, and it's a special occasion, say a birthday or something.” (19 years old, high SES)

While mid and high SES women regarded 'eating out' as being at either a friend's house or at a restaurant, several low SES women commented that they had a 'takeaway night' of the week.

“Saturday nights we usually have McDonalds. So that's about once a week as a treat.”

(18 years old, low SES)

“Friday nights is our takeaway night.” (46 years old, low SES)

Time constraints

Lack of time due to a hectic lifestyle was seen as a significant barrier to healthy eating for many of the women interviewed. Not having enough time to prepare meals was a common reason for eating takeaway or fast food, as described by one mid SES woman.

“Just being busy with the kids and the lifestyle, I just don't have time to prepare meals as I would if I wasn't so busy. It's often - when you're running around it's easier just to buy takeaway or come home and just make something up quickly instead of taking the time to prepare.” (38 years old, low SES)

It was common for low and mid SES women to express a lack of time due to work commitments, rather than family commitments, as a barrier to buying and preparing healthy foods.

“The days that I work, they're the days that I'll cook something that you can just whip up in twenty minutes or so as opposed to when I'm home, I'll actually cook something a bit more decent.” (38 years old, low SES)

Perhaps due to the fact that many of the high SES women were engaged full-time in home duties and not paid work, work commitments were not seen as an important barrier for high

SES women. Instead, high SES women often commented on the time spent looking after the children as a barrier to preparing healthy foods.

“Generally I cook things that are really quick, so I don't have to spend too much time in the kitchen. I spend a lot of time running kids around in the afternoon, especially on my days off.” (45 years old, high SES)

Selected environmental factors related to the women's local neighbourhood environments seemed to influence their food choice, as described below. In particular, cost was reported to strongly influence food choice in low SES women.

The local food environment

In response to the question “how easy or difficult is it to buy healthy food in your neighbourhood?” most of the women commented that it was generally easy.

“Oh yes, we've got markets, you know there's a market which has fresh food, and there's heaps of supermarkets to buy all that stuff, so there's heaps, there's a lot here.”
(37 years old, low SES)

Very few of the women made any comments in relation to difficulties accessing healthy food or a need for better food facilities in their local environment. However, one mid SES woman commented that transport to the supermarket was a problem whilst another woman of low SES mentioned the high number of fast food outlets in their neighbourhood.

“It’s not very easy to get to the supermarket and market. They are not around here - not too far but I have to use the car to get there, I can’t walk there.” (65 years old, mid SES)

“I’d say it’s probably a bit hard to buy healthy food here.... All the takeaways, just the local ones, we’ve got all of them.” (20 years old, low SES)

Cost considerations

The cost of healthy food was the most frequently reported purchasing consideration for women of low SES. Low SES women more often reported considering the cost of food than mid or high SES women. Some mid SES women did mention cost as a food purchasing consideration but it was not seen as the most important factor.

“Yes I’m afraid I do consider the cost of things; although sometimes I will just buy quality meat, fruit and vegetables and leave the no brand names for say breakfast cereals.” (39 years old, low SES)

Some of the women of low SES believed that healthy foods, especially fruits and vegetables, were more expensive.

“It’s also - like with fruit and stuff, what’s in season, what’s too dear at the moment to have; you know sometimes vegetables can be really expensive...” (31 years old, low SES)

“I usually like chips - whatever's cheap. It's always so expensive; it's ridiculous...I take, like \$5 or \$6 a day, and there's this place where I can get a bottle of water for \$1 and I try and last that for 2 or 3 hours. And I'll buy chips, which is like \$2 or \$3. And sometimes if I've got extra money I'll buy myself something decent like pasta...Yeah, mostly greasy food. It's more cheap and easy. Chips, sometimes pizza slices. It's usually sort of the same things.” (18 years old, low SES)

None of the women from the high SES group noted cost as the major food purchasing consideration. In fact, the following two women actually emphasised the fact that they did not consider cost when purchasing food items.

“Cost is not a huge issue as a lot of it I would make at home. So I guess I am driven by something everyone will eat so I'm not having to do more than one type of meal.” (46 years old, high SES)

“If I'm cooking I would consider health and definitely not cost.” (19 years old, high SES)

However, high SES women did report that the high expense of the food was a disadvantage in their neighbourhood.

“It's expensive because of the socioeconomic group, it's pretty high around here. Highly accessible and there is certain parts of it that is pricey.” (46 years old, high SES)

Discussion

In this study, a qualitative methodology was used to investigate the mechanisms underlying established SES gradients in dietary behaviours. Results from this study confirmed that women of low SES tended to report certain eating patterns that were generally less healthy than those of high SES women. The findings also provide key insights into possible reasons for SES variations in dietary behaviours, and suggest that a combination of individual level (e.g., values), social (e.g., time, family and partner support) and environmental factors (e.g. cost) may be important.

In terms of individual-level variables, there appeared several SES differences in terms of the values and practices applied to eating. For instance, women of low SES valued traditions and familiar dietary practices on which they had been brought up as children. This is consistent with past research that low SES groups possess stronger traditional beliefs and expectations about practices relating to food (Pill & Parry, 1989). Women of high SES more often referred to concerns for their health and their body weight when making food choices. This may be a reflection of the more successful uptake of health promotion related to diet among these women. In contrast, lower SES groups are often more accepting and even desiring of overweight women (Sobal, 1991). The present findings suggested, however, that there were few or no differences between the SES groups in relation to other individual factors, such as taste preferences. For example, women reported that taste was one influence on their food purchasing decisions, regardless of their SES.

Reported social barriers to healthy eating were also qualitatively different among the SES groups in this study. Women of low and mid SES identified time constraints due to work commitments as a barrier to buying and preparing healthy meals. Both low and mid SES

women reported that they often depended on convenience foods, whether it was takeaway or pre-packaged foods, when they did not have time to prepare a meal. Other studies have similarly shown that people of low and mid SES spend the least amount of time preparing and cooking meals, and are more likely to rely on ready-prepared meals (Caraher, Dixon, Lang, & Carr-Hill, 1999; Caraher & Lang, 1999; Greder & Brotherson, 2002). While many of the high SES women in the present study reported lack of time as a barrier to healthy eating, this was attributed to family, rather than work commitments. However, it should be noted that seven of the 19 high SES women in this study had no paid work, but rather were engaged in full-time home duties and child-care.

Consistent with previous research (Charles & Kerr, 1988; Lupton, 2000; Santich, 1995), the results of the present study suggested that for many women, their food choices came second to those of their partner or children. Women of low and mid SES more often described feeling that their desire to eat well was not supported by their partner, as even when the cooking was shared amongst the family, their partner's choice of what to cook was not often meeting women's own preferences for healthy foods. A lack of support was not explicitly mentioned as often among women of high SES, on the other hand, but these women also reported frequently putting their children's food preferences before their own. Clearly family support for healthy eating is an important influence on women's dietary choices across all SES groups.

The present study only partly corroborates the findings of other studies reporting on associations between environmental factors and food choice (Diez Roux, 2000; Macintyre, Ellaway, Der, Ford, & Hunt, 1998; Reicks et al., 1994; Treiman et al., 1996). Women from all three SES areas appeared generally satisfied with their local neighbourhood and the

availability and quality of healthy foods. This is in contrast to previous evidence that has shown that people from more socially advantaged neighbourhoods have more positive perceptions about their local food environment compared to those from less advantaged areas (Sooman & MacIntyre, 1995). There was also limited evidence to suggest that access to fresh food outlets locally was seen as a barrier to healthy eating among women from any SES group. Problems when food shopping and other environmental factors such as storage space and media advertising were also not reported as major influences on the eating behaviours among the women.

Current Australian research has found no convincing association between area level SES and food purchasing behaviour, suggesting that in Australia, living in a socioeconomically disadvantaged area within a major metropolitan city may not act as a hindrance to the procurement and consumption of healthy food (Turrell et al., 2004). Another study that represented urban and rural areas across Australia (Giskes et al., 2002b) reported that perceived availability and quality of fruit and vegetable did not differ by household income, a finding which also lends support to the present results. While this study, and similarly a study undertaken in Brisbane (Turrell et al., 2004) showed that urban areas in Australia are socially and economically segregated, the extent of this separation appears less extreme from that observed in the US and UK. Some low SES women also expressed concern about the number of fast food outlets available in their local neighbourhood and found this a deterrent to eating healthily. A previous study, also set in Melbourne, has shown that there is a greater density of fast food outlets in low SES areas, which could in turn influence people of low SES to eat fast foods more frequently (Reidpath, Burns, Garrard, Mahoney, & Townsend, 2002).

The perceived high cost of healthy food was reported as a predominant barrier to healthy eating among low SES women. Past research on the financial costs of healthy eating suggests that healthy diets are more expensive than less healthy diets, and that it is difficult, if not impossible, to achieve a healthy diet on a limited budget (Darmon, Ferguson, & Briend, 2002; McAllister, Baghurst, & Record, 1994). However, this may not be the case in all countries, since Australian research has shown that a healthful diet need not be expensive; that it is possible to eat well on a limited budget; and that a diet consistent with dietary guidelines is affordable and accessible even to those of low SES (Foley, Pollard, & McGuiness, 1997; Lawson & Black, 1993; Turrell, 1996). This previous Australian research seems at odds with the present findings. It may be that people of low SES hold misconceptions about the costs of healthy foods. There is some evidence that individuals' perceptions of food costs do not always match objective costs (Cade, Upmeier, Calvert, & Greenwood, 1999). Further investigation of such discrepancies, including objective audits of costs of foods across neighbourhoods of varying levels of disadvantage, is required.

Several methodological issues need to be considered when interpreting the findings presented here. This study sample comprised women who responded to advertisements and volunteered to participate, and these women may have been more likely than others to have an interest in nutrition. The data were based on self-reports, and women may have misreported their eating behaviours to be more socially desirable than they actually were. It also should be noted that the results of this study, particularly those related to food access, are necessarily of a local nature and findings may differ from those of other regions or countries. There may be additional influences that contribute to SES variations in diets that were not specifically investigated here. There were, however, a number of strengths to the present study. The socioeconomic differences identified were based on responses from 56 women, which is

relatively large for a qualitative study. There was a diverse range of women in the sample, not only from differing SES groups, but also of different ages, education, occupation, living arrangements and marital status. Many previous studies have simply focused on the individual, social or environmental influences, whereas this study was unique in that it investigated all three domains of influence. As has been previously argued, it is important to examine the interactions between the individual, and the social and physical environments (Stokols 1992), in order to understand influences on healthy behaviours, and to develop effective intervention strategies.

Findings of the present study have important implications for nutrition promotion among women, particularly those from disadvantaged groups. Strategies to decrease socioeconomic differences could involve providing education about less traditional or familiar types of fruits and vegetables. It may also be useful to promote inexpensive ways to increase healthy foods such as fruit and vegetable consumption, and to ensure that people of low SES are aware that many healthy foods are available at relatively low cost. Specific strategies should also focus on examining potential non-financial costs incurred by a healthful diet, such as the extra time to shop and prepare for healthy foods as well as the effort involved in convincing other family members to consume a healthy diet.

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Table 1: Socio-demographic characteristics of interview participants

	Low SES (n = 18)	Mid SES (n = 19)	High SES (n = 19)
<u>Age</u>			
18-30 years	7	4	7
31-40 years	8	5	3
41-50 years	3	3	8
51-60 years	0	4	1
61+ years	0	3	0
<u>Education</u>			
Some school/ completed school	14	3	4
Tertiary (TAFE, university, post-graduate)	4	16	15
<u>Occupation</u>			
Manager or professional	3	9	3
Associate professional	2	0	0
Clerical, sales or service worker	7	4	4
No paid work	3	3	7
Student	3	3	5
<u>Marital status</u>			
Single	9	9	7
De facto/ living together	1	2	1
Married	8	4	11
Separated/ widowed/divorced	0	4	0
<u>Live with</u>			
Alone	2	9	0
Parents/ family	3	0	5
Flatmates/friends	0	3	2
Partner and/or children	10	6	12
Share house/ with children & other adults	2	1	0
Non-dependent minor	1	0	0
<u>Home</u>			
Rent	5	8	5
Own	10	11	9
Buying/ purchasing	1	0	1
Family home	1	0	3
Housing provided (lead tenant role)	1	0	1

Table 2: Qualitative Study Interview Structure: Sample of main questions

 Interview Questions

How many pieces of fruit do you usually eat each day? How many vegetables?

How often do you eat takeaway food? What sorts of takeaway do you eat?

How often do you usually eat meals (breakfast, lunch, dinner) at home? Which meals?

How often do you eat snacks at home? What snacks do you have (examples)?

How often do you eat meals/snacks away from home? Can you tell us about those?

Who prepares the food at home?

For your main meal of the day, what sorts of things do they/you cook – can you give a couple of examples? For whom?

What are the main things you think about when you're choosing what to buy and/or cook for meals at home? How important are... (series of influences used as probes – e.g., health; cost; preferences of family/others; convenience)

How easy or difficult is it to buy healthy food in your neighbourhood? Why?

Would you like to change any aspects of your eating?

What are the most important things that stop you making these changes to your eating?
