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Research report

Understanding the older food consumer. Present day behaviours and future expectations

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ABSTRACT

The main aim of this study was to determine whether Baby boomers know how they would manage to maintain a healthy diet on lower incomes in retirement. A cross-sectional survey was conducted at two shopping centres in Melbourne, Australia with 352 respondents. Contingency table analyses (using chi-square tests) were used to examine differences in present and future cooking habits between gender, age and socio-economic groups as well as anticipated changes to food shopping if they had less money in the future. The findings suggest that the most common food preparation behaviours were making meals from scratch ingredients (~80% of participants) or using a combination of fresh and convenience foods (~55% of participants), with socio-economic and demographic factors significantly influencing specific behaviours. Nearly 50% responded that if they had reduced income they would make a change to their food shopping habits. The most common changes were to the types of food purchased and seeking out special offers or cheaper brands. The results suggest that when faced with a lower standard of living, people will make changes to their food consumption habits. The challenge facing health promotion practitioners, is to ensure that these changes are well informed, leading to healthy options.

Introduction

Baby boomers have been defined as those born between 1946 and 1965 (Australian Bureau of Statistics, 2004) and account for over 20% of the population in Organisations for Economic Co-operation and Development (OECD) countries such as Australia (Australian Institute of Health and Welfare, 2007).

In the 1980s it was reported that this generation only had a moderate interest in living a healthy lifestyle and it was thought that this was not due solely to lack of knowledge on health issues but that there was a greater emphasis placed on enjoying the taste of food rather than whether it was healthy or not (Belasco, 1989). At the same time developments in medical diagnosis and treatments has enabled people with multiple health problems caused by unhealthy lifestyles to live longer. So it is not surprising that many of the health issues that currently affect Baby boomers and older adults are diet and lifestyle-related diseases such as cardiovascular health, type 2 diabetes, obesity, osteoporosis, malnutrition, cancer, mental health, arthritis and musculoskeletal conditions and the incidence of these diseases increases with age, nor that there is concern that population ageing is a major priority for the community at large because of its associated adverse health care costs (Slack-Smith & Laverty, 2005) and increased burden on the healthcare system (NATSEM, 2004).

It has been suggested that existing models of formal and informal care provision will not be sustainable if current trends are maintained (Slack-Smith & Laverty, 2005). This is somewhat controversial as around 9% of the population maintain their employment beyond traditional retirement ages and the trend appears to be increasing (Australian Institute of Health and Welfare, 2007), therefore reliance on support services is likely to decrease.

What is less controversial, however, is that the economic costs of ageing depend upon whether the Baby boomers are high income or low income. Low income boomers will have little or no wealth to support their retirement (Hamilton & Hamilton, 2006a). Whilst it has been argued by some that very few of them will be entirely reliant on government funding as most will have at least some private superannuation (Slack-Smith & Laverty, 2005), in 2007 around 67% of all persons who were retired relied solely on government pensions or allowance for financial support (Australian Bureau of Statistics, 2007b). Although in 2007 there were changes introduced that affected the eligibility of receiving an age pension from the Australian Government (Centrelink, 2008), there

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is no evidence that there are plans to completely remove this form of financial support for eligible permanent residents in Australia in the near future.

Yet Hamilton and Hamilton (2006) found that regardless of income level, Baby boomers believe that the age pension is insufficient for a secure future. Furthermore, whilst Baby boomers are the first generation who have benefited from a compulsory contribution to superannuation in Australia, these schemes were only widely introduced in the early 1990s. As superannuation schemes depend on the length of time the person has contributed, the amount they have contributed and the type of scheme, it is expected that this will result in a shortfall in private retirement income for many Baby boomers, for example new migrants or women who left the workforce to raise children, resulting in a reliance on the age pension (Hamilton & Hamilton, 2006b; Quine & Carter, 2006).

Consistent with this view, an American study conducted in 2005 found a substantial increase (from 11% to 26%), in the number of Baby boomers who are concerned or worried about retirement due to a perceived decrease in their quality of life and standard of living (MetLife Mature Market and Institute, 2005). In particular, the socio-economic position of individuals and the financial planning they have undertaken in readiness for retirement will influence the types of foods they can purchase, the frequency with which they eat out and their overall nutrition status (Adrian & Daniel, 1976; Inglis, Ball, & Crawford, 2008; Worsley, Blasche, Ball, & Crawford, 2003).

Recent increases in the costs of living in western countries are likely to have exacerbated this concern, for example in Australia between the March 2007 quarter and March 2008 quarter, there was a 5.7% rise in the consumer price index for food, with the main contributors being take-away and fast foods which increased by 5.6%, vegetables (9.7%), milk (11.6%) and bread (9%) (Australian Bureau of Statistics, 2008).

It is clear then that there is an urgent need to encourage healthy food choices and good nutrition to facilitate healthy ageing and nutritional needs change with ageing (Horwath, Kouris-Blazos, Savige, & Wahlqvist, 1999). Furthermore, poor health status and functional abilities have been associated with a reduction in the ability to procure and prepare food in later life, particularly among socially and geographically isolated people (Payette & Shatenstein, 2005). Lifecourse transitions, for example from being a couple to widowhood, have also been identified as barriers to healthy eating as people age (McKie, 1999).

Whilst there has been considerable market research conducted on the shopping habits of Baby boomers for various products, little peer-reviewed literature is available on factors that influence their food choices. However there is a perception that mature-aged customers have more disposable income to spend on food and groceries (Ahmad, 2002), although this is only likely to apply to high income boomers (Moschis, Curasi, & Bellenger, 2004). Furthermore, they are also more likely to be traditional consumers, store and brand loyal (Ahmad, 2002).

If many Baby boomers are likely to experience reduced incomes in retirement, it is of the utmost importance to understand how they might respond to the increasing cost of living and the likely health outcomes arising from their responses. Therefore the main aim of this study was to determine whether Baby boomers know how they would manage to maintain a healthy diet on lower incomes in retirement. The research questions addressed in this study were to determine the present food shopping and preparation habits and preferences of Baby boomers and what changes they expect to make to their shopping and cooking habits if they encounter reduced incomes in retirement.

It was hypothesised that (a) Baby boomers and older adults would have different food shopping and preparation habits to younger adults and (b) Baby boomers and older adults would anticipate making substantial changes to their food shopping and preparation in the future, whilst younger adults would expect to maintain current practices.

Methods

Procedure

Whilst the study was focussed on those aged 40 years and over, those less than 40 years of age were included to allow for comparisons across different age groups.

For the purpose of this study, participants under 40 years of age were referred to as younger adults, those aged 40–60 as Baby boomers and those over 60 years as older adults.

Shoppers were from the Eastern suburbs of Melbourne aged 18 years and over, were recruited through an intercept survey conducted at shopping malls in August 2007.

Two researchers were stationed outside two key food retailers in outer Melbourne, one in the City of Maroondah and the other in the City of Boroondara over a period of 3 days from 9 a.m. through to 5.30 p.m. with posters and information leaflets displaying details of the project. As adult shoppers passed they were approached and asked if they were interested in participating in the project. Interested persons were handed a questionnaire and pen and informed they could either complete the questionnaire on the spot or take it home and return it in a reply paid envelope provided. They were advised that completion and return of the questionnaire would assume consent but they could complete the survey anonymously. If they wished, they could provide contact details to enter a draw for 1 of 5 × $50 gift vouchers. Approximately 40% provided contact details so they could take part in the draw.

Seven hundred and forty questionnaires were distributed over 4 days and 352 were returned (48% response rate). One hundred and sixty people were approached but gave a direct and immediate refusal to participate (18% of total sample), thus the overall response rate was 39%. Reasons given for refusal included being too busy/in a hurry, not interested or that they did not believe they would have anything to contribute.

Ethics permission was obtained from the Deakin University Ethics Committee (DUHREC-HMNBS 15/07). In order to maintain privacy and anonymity of the respondents, the Ethics Committee did not allow the collection of personal details during the intercept and therefore follow up reminders could not be sent to non-responders.

Questionnaire

This paper reports on results from two of the 11 questions about shopping that asked participants to consider their food habits and behaviours now and in the future as follows.

Question 1

What kind of meals are you most likely to prepare both now and in the future. Items included (a) food made only from scratch ingredients; (b) food made from frozen or convenience products; (c) take-away foods; (d) foods made from a combination of fresh and convenience products; (e) meals make in bulk on a budget (these are meals that have been made in the home in larger portion sizes than is needed for one meal sitting with the intention of storing the rest in a freezer or refrigerator. Bulk meals might be made from fresh ingredients, convenience ingredients

or a combination of fresh and convenience ingredients). Meals made from 'scratch' was defined as using raw or fresh ingredients that had no or minimal processing (i.e. vegetables such as potatoes may have been cleaned), whilst convenience products was classified a wide range of products including ready-made pasta, i.e. ravioli, ready-made sauces, cooked chickens and canned soups.

Question 2

In response to an open question, participants were asked to write down the changes they would make to their food shopping if they had less money to spend when they retired.

These questions were developed by the authors from some of the issues raised in focus groups that were conducted in the early stages of the project, these issues included access to food, food shopping, food preparation (likes and dislikes), skills, cost of food, eating out, socialising and future options (Hunter, Wang, & Worsley, 2007).

Data analysis

Frequency analyses were conducted on the demographic variables to determine the distribution of the data. Contingency table analyses (using chi-square tests) were used to examine differences in present and future cooking habits between gender, age (19–39, 40–59, 60–80 years) and socio-economic groups. The Descriptives program of SPSS Version 14.01 was used (Crosstabs procedure with chi-square statistics) and a significance level of $p \leq 0.01$ was used. Categorical variables for marital status and education were collapsed into two categories due to low numbers.

Thematic qualitative content analysis was conducted on the responses to the open-ended question 2. This involved coding participants' answers and grouping the codes into categories. A definition or explanation of each code was developed. To ensure reliability of coding two members of the research team independently coded the answers and then compared results. Where coding was consistent it was accepted, where differences occurred discussion took place until agreement was reached (Mayring, 2000). The themes and examples are shown in Table 4.

Results

Three hundred and fifty-two people returned the questionnaires, however questionnaires from three respondents were not included because of inadequate data. Of the remaining 349 participants, 84% were women and 72% were either married or living with a partner.

Over half of the sample was tertiary educated (58%). As data for the education levels of people aged over 40 years who live within the two local government areas are not available, direct comparisons of education levels are difficult to make, however in the City of Maroondah, 54% of people aged over 15 have a tertiary or post-secondary technical qualification (Maroondah City Council, 2008) and in the City of Boroondara 72% are similarly qualified (City of Boroondara, 2008).

Only 47% of the respondents were in either full or part time employment. Of those not working, 30% were retired and approximately one in four were living on a household income of less than $40,000 per annum (Table 1). This is comparable with the general population in the district of Boroondara, where 22% have an annual household income of less than $40,000 per annum (City of Boroondara, 2008). Those who were single or widowed were significantly more likely to have lower household income than those who were married (55%:18%, $p = 0.000$).

Table 1
Social characteristics of sample

	n	%
Gender		
Male	56	16
Female	293	84
Age		
19–39	52	17
40–59 years	136	43
60–80 years	126	40
Marital status		
Single or widowed	97	28
Married or defacto	251	72
Education		
Less than 12 years or trade	117	34
12 years or more	228	66
Employment		
Full time	57	17
Part time	104	30
Not employed	183	53
Family income per annum		
<$40K	90	28
$40–90K	116	36
>$90K	113	35

Three hundred and forty people answered the questions on current food preparation practices. Preparation of meals from fresh ingredients ranked first with 81% of participants, followed by 56% who made meals from fresh and frozen ingredients (Tables 2 and 3).

There were no statistically significant gender differences on any of the items. However, young adults (19–39 years) were significantly more likely to use convenience/frozen foods and were nearly six times more likely to consume take-away foods compared to those in the oldest age group (Table 2). Those working full time were twice as likely to eat take-away food. However there were no significant associations with any of the demographics for the use of fresh and convenience foods combined. Younger people, those who were single/widowed or those who had a low income were more inclined to have prepared meals in bulk (Table 2).

There were significant associations between high education level and marital status, and, participants' belief that they would cook more meals from scratch in the future (Table 3). More single or widowed participants anticipated using convenience and frozen foods in the future compared to those who were married ($p < 0.01$). Younger adults and those who were working full time were significantly more likely to anticipate preparing food in bulk in retirement. There were no differences in the percentages of participants who anticipated they would use a combination of fresh and frozen products in the future across any of the demographic variables.

The respondents' present and future patterns of behaviour were quite similar (Fig. 1), although there was a 33% decrease in the number of participants who anticipated using both fresh and convenience or frozen foods and a 22% decrease in the number of participants who anticipated eating take-away food in the future. There was a small increase in the percentage of participants who anticipated preparing meals in bulk (8%), but this was the only behaviour where an increase was observed.

Responses to the open-ended question on the changes participants would make to their food shopping if they had less money in retirement were assigned into six categories (Table 4). Most respondents believed that they would have to make some changes and the two most commonly proposed changes were to alter the types of foods they purchased (24%). The respondents

Table 2
Socio-economic and demographic differences in present day food preparation ($n = 340$)

	From scratch		Convenience/frozen food		Take-away foods		Fresh and convenience foods		Make meals in bulk	
	%	*p*-Value	%	*p*-Value	%	*p*-Value	%	*p*-Value	%	*p*-Value
Gender										
Male	82	0.847	24	0.257	27	0.988	55	0.865	16	0.117
Female	81		17		27		56		26	
Age group										
19–39	76		37		63		69		39	
40–59	79	0.393	16	0.001*	32	0.000*	53	0.103	22	0.021
60+	84		13		11		52		19	
Education										
12 years or less	78	0.259	22	0.146	22	0.145	57	0.680	30	0.068
More than 12 years	83		16		30		55		21	
Marital status										
Single/widowed	75	0.084	31	0.000*	33	0.167	55	0.908	36	0.002*
Married/defacto	83		14		25		56		20	
Work arrangements										
Full time	88		18		45		54		30	
Part time	74	0.093	21	0.605	28	0.003*	62	0.295	25	0.472
Not in paid work	82		16		21		53		22	
Household income p/a										
<$40,000	79		27		27		58		33	
$40–90,000	82	0.587	16	0.017	26	0.796	56	0.961	26	0.025
>$90,000	85		12		30		56		16	

* Denotes significant associations.

anticipated buying fewer luxuries, speciality foods or treats; buying more fresh produce and less processed or convenience foods, making more foods from raw ingredients or growing their own fruits and vegetables. One in five stated that they would buy cheaper brands or buy food when it was on special offer and for some this also meant purchasing food that they perceived as lower quality (e.g. 'home' brands) or buying from discount supermarkets. Some respondents suggested they would reduce the amount of food they purchased or the frequency with which they ate out.

Those who reported no change to their food shopping were not prepared to compromise the quality and variety of food they currently purchase and preferred to reduce household expenditure elsewhere.

Table 3
Socio-economic and demographic differences in expected future food preparation ($n = 316$)

	From scratch		Convenience/frozen products		Take-away foods		Fresh and convenience products		Make meals in bulk	
	%	*p*-Value	%	*p*-Value	%	*p*-Value	%	*p*-Value	%	*p*-Value
Gender										
Male	86	0.386	16	0.925	18	0.409	52	0.685	22	0.227
Female	81		17		23		49		31	
Age group										
19–39	87		27		46		63		48	
40–59	84	0.458	16	0.091	23	0.000*	47	0.184	30	0.002*
60+	79		13		8		49		20	
Education										
12 years or less	72	0.001*	22	0.080	23	0.916	47	0.579	28	0.920
Tertiary/postgraduate	87		14		22		51		29	
Marital status										
Single/widowed	72	0.006*	26	0.006*	29	0.073	47	0.619	28	0.364
Married/defacto	85		13		20		50		33	
Work arrangements										
Full time	89		17		36		51		36	
Part time	81	0.313	18	0.803	22	0.022	50	0.948	39	0.002*
Not in paid work	79		15		18		48		20	
Household income p/a										
<$40,000	71		24		19		53		32	
$40–90,000	84	0.031	16	0.058	19	0.104	51	0.920	31	0.622
>$90,000	85		11		30		50		26	

* Denotes significant associations.

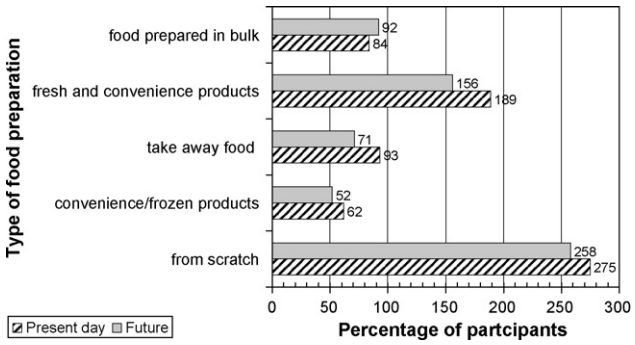

Fig. 1. Comparison of present day and future food preparation behaviours (percentage of participants).

There were several statistically significant differences between demographic groups in the changes they anticipated they would make to the types of food purchased (Table 5). Respondents who were in the younger age groups (19–39 years and 40–59 years of age), tertiary educated or those who worked, particularly part time, anticipated changing the types of foods they would purchase in the future if they had less money. Some of the changes they would make included changing to 'home brands', buying cheaper cuts of meat and buying fewer 'treats' such as confectionery, snacks and luxury foods.

Respondents in the middle age group (40–59 years) were more likely to propose changes to the quantity of food they would purchase in the future (Table 5). These participants either anticipated purchasing less food, consuming smaller portions or alternatively purchasing food in bulk when it was on special offer, particularly meat.

There were no significant associations between the demographic variables and prudence/planning, shopping frequency/location, or looking for cheaper prices.

Only 40 participants said they would make no changes and these tended to be older participants (Table 5). Some said that food was important for their health and therefore they would prefer to reduce expenditure on other things, whilst others did not expect their income to decrease so much that they would have to make any changes or they were already living on a decreased income and had learned to budget accordingly.

Table 4
Definitions for categories derived from responses to question "when you retire, if you had less money to spend, what changes would you make to your food shopping?"

Category	Example
Type of food	Changing to a cheaper brand or type of food product (for example buying mince instead of steak) and not buying luxury food items
Quantity of food	Changing the amount or quantity of food purchased and eaten. A few respondents suggested they will buy in larger quantities, however most said they would cut back on the amount they purchased
Prudence/planning	Participants discussed planning shopping more carefully, using shopping lists and only buying what would be needed
Shopping frequency and location	Included food shopping more or less often than current practice. Also includes changes to the frequency of shopping at specific locations
Cheaper prices	Looking out for special offers and bulk buy, choosing cheaper alternatives
No change	Included people who said they were not sure how living on a reduced income in retirement would affect their food purchasing and those who said they would not change their food purchasing but would make changes to other purchases and expenditure

Table 5
Participants' anticipated changes to food shopping if they had less money (percentages have been rounded)

	Type of food (n = 162)		Quantity (n = 47)		Prudence/ planning (n = 44)		Shopping frequency and location (n = 36)		Cheaper prices (n = 74)		No change/don't know (n = 40)	
	%	p-Value	%	p-Value	%	p-Value	%	p-Value	%	p-Value	%	p-Value
Gender												
Women (n = 293)	49	0.019	14	0.510	12	0.196	12	0.022	21	0.964	12	0.848
Men (n = 56)	32		11		18		1.8		21		11	
Age												
19–39 (n = 52)	56		10		15		10		25		4	
40–59 (n = 136)	57	0.000*	19	0.051	14	0.314	11	0.406	24	0.380	6	0.000*
60+ (n = 126)	31		10		9		6		18		21	
Education												
12 year or trade (n = 144)	36	0.004*	15	0.640	13	0.979	7	0.117	21	0.761	14	0.319
≥12 years (n = 201)	52		13		13		12		22		10	
Marital status												
Single/widowed (n = 97)	33	0.002*	11	0.462	13	0.791	8	0.424	21	0.855	14	0.285
Married/defacto (n = 251)	52		14		12		11		53		10	
Employment												
Full time (n = 57)	49		14		14		14		21		11	
Part time (n = 104)	61	0.002*	19	0.079	14	0.543	16	0.008*	25	0.570	5	0.019
Not working (n = 163)	39		10		10		6		20		16	
Family income p/a												
<$40K ($n$ = 90)	37		11		11		8		17		12	
$40–$90K (n = 116)	54	0.034	17	0.265	9.5	0.414	11	0.361	26	0.214	14	0.358
>$90K ($n$ = 113)	51		11		15		14		19		8	

* Denotes significant associations.

Discussion

In order to try to understand the older food consumer and how they differ from younger generations, in this study participants were asked to predict their future food shopping and preparation behaviours and well as reporting on current practices. Of course, predicted food behaviours do not always result in actual behaviours but they do give an indication of how much foresight people have about their future needs.

The results did not support the second hypothesis, that Baby boomers and older adults would make changes in the future, whilst younger adults would continue with current food behaviours. Generally all participants, regardless of age reported currently preparing meals from fresh ingredients or a combination of fresh and frozen foods and they expected to maintain their most of current practices into the future. It should be noted that these results do not necessarily reflect their dietary intakes as these were not measured in this study and other research has shown that Baby boomers and older adults have low intakes of breads and cereal based products, vegetable and fruit compared to dietary recommendations (Ball, Mishra, Thane, & Hodge, 2004; Riediger & Moghadasian, 2008).

For present day food preparation age, marital status and work arrangements were significantly associated with the use of convenience/frozen foods and take-away foods. Age was significantly associated with anticipated use of take-away food in the future, as was making meals in bulk, whereas marital status was associated with the use of convenience/frozen foods.

Relationship between age and food preparation

As hypothesised, there were differences in food shopping and preparation behaviours between the age groups. Younger adults in this study were three times more likely to currently prepare convenience/frozen foods and over five times more likely to use take-away foods than those aged 60 years and over. This is consistent with other studies which have shown that people under 40 years of age are more likely to consume these types of foods (Mohr, Wilson, Dunn, Brindal, & Wittert, 2007; Simmons et al., 2005). They also expected to use take-away foods in the future compared to the older age groups, although there was no significant difference in the future use of convenience/frozen foods amongst the age groups. At the same time, it was younger adults who expected to be making meals in bulk in the future.

Wu (2007) suggests that younger people might define convenience differently to older generations. He argues that for younger people convenience is more aligned with easy access to foods, recipes and cooking tips from the internet, whereas for older generations it is purchasing ready-made products that need minimal preparation. Furthermore those born between 1978–2007 (Millennials) and Generation X (born between 1965–1977) have many other demands on their time and therefore tend to used convenience foods and ready-made meals during the week and use the weekends for experimenting with new recipes and fresh ingredients. In contrast Baby boomers and older adults may have more time for food preparation and be more inclined to put a meal on the table with minimal use of convenience foods (Wu, 2007).

In addition, older adults appear to perceive convenience foods negatively. A recent study of older people's intentions to eat convenience foods across eight European countries found that intentions to eat convenience foods were very low, which may have been due to low perceived need and low perceived social pressure to eat these foods (Saba et al., 2008).

Marital status and food preparation

Those who were single or widowed were twice as likely to currently use convenience/frozen foods compared to those who were married and more than one and a half times likely to make meals in bulk use of convenience/frozen foods in the future. Participants who were single or widowed were more inclined to currently use convenience and or frozen food and take-away foods. As marital status was also significantly associated with household income, it is possible that those who were single or widowed may be attempting to minimise food costs by buying and preparing meals in bulk.

Further exploration of the influence of others on meal preparation is warranted to understand this relationship better. Some studies have found that women in their role of 'gatekeepers' of family food provision are influenced by the desire to cater to the family's food preferences and minimise conflict at mealtimes (Hursti & Sjoden, 1997; Wansink, 2006), therefore it is possible that those who live with others may be less inclined to prepare food in bulk and serve 'leftovers' if these are not well received by the other family members. As portion sizes from supermarkets are often larger than can be consumed by one person, people living alone may need to prepare meals in bulk for use at a later date in order not to waste food. Alternatively for those who have experienced a transition to living alone after years of living with others, preparing food in bulk may be simply a habit that they have not discarded.

Work arrangements and food preparation

Participants who were currently working full time were twice as likely to consume take-away foods as those who were working part time or not in paid work. Time pressure is often cited by young and middle-aged people, particularly those with working commitments and who have children living at home (Aylott & Mitchell, 1999; Chetthamrongchai & Davis, 2000) and therefore this may influence their decisions to use take-away foods.

Another factor associated with consuming take-away food was full time employment. Candel (2001) studied consumers' orientation towards meal preparation and convenience foods and found that convenience orientation was positively related to role overload and that take-away meals or meals eaten out of the home were considered to be desirable forms of convenience foods.

Future shopping and preparation

The perception that changes to food shopping would be needed in the future seemed quite entrenched amongst the sample, even though many of the participants were of an age where superannuation would have been part of their salary package (Candel, 2001). However, for individuals working part time or with a low income this would not provide a substantial retirement income (Patrickson & Ranzijn, 2004). The perceived need to change future shopping habits is possibly a reflection of the sample. More than a quarter of the respondents were living on a low household income and over half were not employed (of whom nearly one third were retired).

Whilst some participants proposed making purchasing changes, (for example, changing the type of food purchased to include fewer luxury items, eating takeaway food or buying less confectionery) which may have positive effects on the future health of participants, a number also said they would buy cheaper cuts of meat and brands of food. The literature suggests that when consumers change to cheaper cuts of meat or cheaper brands of food they may not be aware of the quality of the new foods, which

could have a higher fat, sugar or salt content (Harrison et al., 2007; Webb & Leeder, 2007). Furthermore, excluding certain foods may result in poor nutritional outcomes. In the US divorced and widowed women are at greater risk of consuming fewer vegetables than those who are married (Lee et al., 2005). Shahar, Schultz, Shahar, and Wing (2001) found that married women were likely to have higher levels of vitamins A and E than those who were widowed (Shahar et al., 2001).

The results of this study did not indicate that older adults and those who are single or widowed expect to have their food behaviours affected by changes in retirement income. Indeed it was younger adults and Baby boomers who expected changes in their future finances to have an effect on their food purchasing behaviours. This finding is opposite to other research that has suggested single and widowed older adults, particularly women are less likely to be able to buy sufficient food to have a nutritious diet (Green, Williams, Johnson, & Blum, 2008). Possibly this may be due to younger and middle aged adults being more sensitive to financial concerns with recent increases in the cost of living and the time pressures they experience.

The findings of the study need to be treated with caution as its cross-sectional design and convenience sample do not allow the drawing of causal inferences. Similarly the future scenario questions used in this study are not necessarily predictive of future actions as other unforeseen events may influence the respondents' behaviours, although they may provide us with a guide to how people are responding to current cost of living increases. Finally, reflecting the suburbs from which they were selected the sample contained more tertiary educated respondents (66%) than found in the general population (approximately 48%; Australian Bureau of Statistics, 2007a).

Conclusions

This research is important is it one of the few studies in Australia that explores anticipated food shopping behaviours of the Baby boomer generation. The results suggest that there is a need for encouraging Baby boomers to plan for their future, for food providers to develop healthy options at affordable prices, and, for policy makers to ensure that future policy and program developments recognise the future needs and expectations of an ageing population.

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