# Demographic and psychographic associations of consumer intentions to purchase healthier food products

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## ARTICLE INFO

## ABSTRACT

*Objective.* This study investigated the associations of nutrition concerns, demographics, universalism (community oriented) values, perceived control over personal health and food buying, and perceived influence over the food system with intentions to purchase low fat, sugar and salt (LFSS) food products.

*Methods.* A national online survey of 2204 Australian consumers administered in November 2011. Structural equation modeling was used to examine associations of LFSS purchasing intentions with demographic, values, perceived control, and influence factors.

*Results.* Nutrition concern, perceived influence over the food system, and universalism values were key predictors of LFSS purchasing intentions. Almost two thirds (64.6%) of the variance associated with LFSS purchasing was explained by the structural equation model.

*Conclusion.* Communication programs which focus on universalism values, nutrition concern and perceived influence over the food system are likely to increase LFSS purchasing and perhaps reduce the demand for energy dense, nutrient poor foods.

## Introduction

The current obesity and chronic disease epidemics in many countries (World Health Organisation, 2011) appear to be due to a combination of factors including the aging of the population and a variety of lifestyle changes such as reduced physical activity and overconsumption of energy and energy dense foods (CDC, 2012; NHMRC, 2013; Peeters, 2007). These foods are characterized as being high in fat, sugar, salt and energy but lacking in essential nutrients, often referred to as energy dense, nutrient poor (EDNP) products (Kant, 2000). They include fast foods and snack products such as biscuits, confectionary and sugar-sweetened beverages (Rangan et al., 2011). In the United States, these products increasingly dominate the national diet (Guenther et al., 2006; Krebs-Smith et al., 2010). Similarly, in Australia in 2013, 41% of energy in the national diet was derived from EDNP foods (NHMRC, 2013).

Over the past two decades the roles of EDNP products, especially sugar-sweetened beverages, high fat fast foods and highly refined carbohydrate products (e.g. cakes, cookies) in the etiology of obesity have come under closer scrutiny (Brownell and Wadden, 1992; Fung et al., 2005; Kant, 2004; Lopez-Garcia et al., 2004; McNaughton et al., 2011; Nettleton et al., 2006; Schulze et al., 2005). While a general consensus is yet to emerge, it is becoming apparent that these products

may contribute to the epidemic of overweight and obesity (Johnson et al., 2008) because of their low cost (Drewnowski and Specter, 2004), high energy content (Kant, 2000), poor satiety (Rolls, 2000), endocrine disruption properties (Prentice and Jebb, 2003) and hyperpromotion (Wilson et al., 2006).

Consumers appear to be aware of some of these issues, reduced fat products in particular being in high demand (e.g. Sandrou and Arvanitoyannis, 2000). However, there is little evidence about their awareness of the fat, sugar, salt and energy in heavily marketed EDNP products. For example, Brewer and Prestat (2002) found that consumers were little or only moderately concerned about the fat, cholesterol, energy and sugar content of food. Similarly, Moon (1998) showed that fewer than half of consumers were concerned about fat and sugar. It is likely that the levels of concern that consumers hold about fat, sugar, salt and energy may be an important motivating factor which may mediate their consumption of EDNP (Weston, 2013) and alternative, modified products which contain lower amounts of these constituents. However, the little work that has been done in this area has been about EDNP products. There has been almost no work on preferences for products which are low in fat, sugar, salt (hereafter referred to as LFSS products) or the factors which may drive their purchasing intentions (Solheim and Lawless, 1996).

In this paper, we propose a conceptual model (Fig. 1) broadly based on the Food Related Lifestyle Model (FRLM) (Brunso and Grunert, 1995), the Theory of Planned Behavior (TPB) (Ajzen, 1991) and previous research

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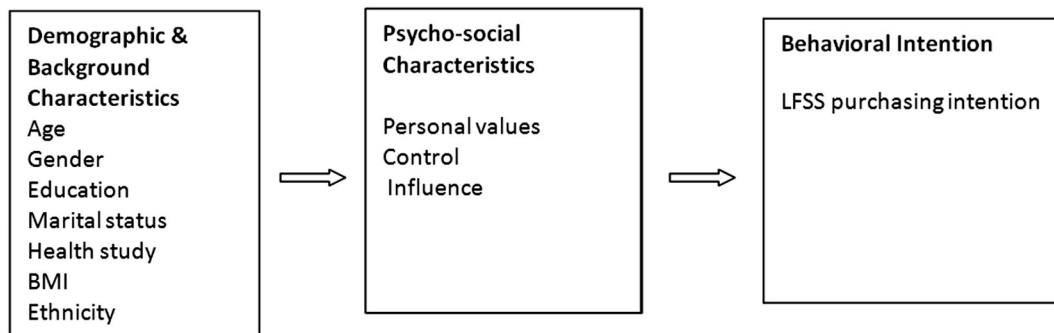  E-mail address: tonyw@deakin.edu.au (A. Worsley).

Fig. 1. Conceptual model of the variables included in this study.

into food risk perceptions (Hohl and Gaskell, 2008; Herrmann et al., 2000; Worsley and Scott, 2000). Our main outcome variable is intention to purchase low fat, sugar and salt (LFSS) food products. Potentially, this variable may be influenced by different types of food concerns, especially concerns about food and nutrition (similar to, but more comprehensive than attitude indices in the TPB), and by perceived control over personal health and food buying (similar to self-efficacy in the TPB) and also perceived influence over external food issues (such as animal welfare). In turn, these likely depend on psycho-social characteristics such as personal values (as proposed in the FRLM) and on social demographic factors.

We proposed four broad hypotheses, as follows. First, we expected that consumers who had higher concern about the nutrition and health aspects of food would be more likely to intend to purchase LFSS food products than those with lower nutrition concern. Our reasoning followed the TPB model, that positive attitudes towards an intended behavior should be positively linked to that intention.

Second, again following the TPB model, we expected that consumers who had greater self-efficacy over their health and food purchasing ('control') would be more likely to intend to purchase LFSS products, and to an extent, we expected that those who felt they had some influence over the food system in general ('influence') might also show more intention to purchase LFSS products. The existence of 'concerned consumers' who have wide interests in the food system has been recognized for some time (Weatherell et al., 2003).

Third, we hypothesized that universalism values are likely to be positively associated with nutrition and health concern and with the intention to purchase LFSS products. Both the Food Related Lifestyle Model (Brunso and Grunert, 1995) and previous psychological research suggest that personal values drive behaviors (Schwartz, 1994) and are the foundation of attitudes (Feather, 1982). In particular, universalism values, defined as the understanding, appreciation, tolerance, and protection for the welfare of all people and for nature (Schwartz, 1992), have been linked to preferences for healthier, sustainable foods (Pohjanheimo et al., 2010; Worsley, 2006, 2007; Worsley and Skrzypiec, 1998) and food policies (Worsley et al., 2011).

Fourth, based on our previous research into food and health concerns (Worsley and Scott, 2000) we expected that women, older people and those in lower socio economic positions (SEPs) would be more concerned about nutrition and health and therefore, would be more likely to intend to purchase LFSS products. We also expected that those who had undergone health education at school would be more likely to be concerned about nutrition and health, since they would have been exposed to education about the nature of EDNP hazards and food skills to minimize those hazards. Finally, we expected that: respondents with higher body mass indices (BMIs) would have greater concerns about nutrition and health since obesity has been linked with greater reliance on EDNP foods (Goldfield et al., 2011).

We tested these hypotheses via structural equation modeling (SEM) which allows for the simultaneous examination of relationships between variables.

## Methods

### Study design, sample and procedure

A total of 2204 Australian adult food consumers over 18 years of age participated in an online survey, conducted during November 2011. Participants were selected from the Global Market Insite (GMI) research database and invited to participate via email. This database includes individuals who have voluntarily enrolled themselves to take part in surveys in return for reward points. Participants who agreed to be involved in the research were emailed a link to the online *Food and Health Concerns Survey*. The study used a cross-sectional design and was part of a larger project examining Australian consumers' food and health concerns. As is common in online surveys (Hooley et al., 2012; Marcel et al., 2011), a form of quota sampling (Battaglia, 2008; Rivers, 2007) was used to derive a convenience sample which was broadly similar to the general Australian population in terms of age, gender and educational background (Australian Bureau of Statistics, 2012).

Ethics permission was granted by the Deakin University Faculty of Health Human Ethics Committee (HEAG-H 126: 2011).

### The questionnaire

Several demographic characteristics of the respondents were assessed including age, gender and educational status (Table 1). Respondents were also asked whether they had studied health or home economics at school, ("health study"). Self-reported weight and height were also elicited; these were converted to body mass indices (BMIs; Table 1). BMIs based on self-reports have been shown to yield highly valid estimates of BMI (Venn et al., 2007). In addition six items were administered to assess the respondents' universalism values (Schwartz, 1994) these were summed to develop a universalism score (Cronbach's alpha = 0.85). The items were: Equality (i.e. equal opportunity for all); a world at peace (i.e. free of war and conflict); a world of beauty (i.e. beauty of nature and the arts); social justice (i.e. correcting injustice, care for the weak); unity with nature (i.e. fitting into nature); broad-minded (i.e. tolerant of different ideas and beliefs); protecting the environment (i.e. preserving nature). Respondents were asked to rate the importance of each of the items to them on 5-point Likert scales (1 = Not at all important, 5 = Extremely important).

For each of seven sets of food concern items (named below), respondents were asked: *How concerned are you about the following issues?* Five-point Likert response scales were employed (ranging from (1) 'not concerned' to (5) 'very concerned'). Many of the items were derived from previous studies (Hohl and Gaskell, 2008; Worsley and Scott, 2000; Worsley and Skrzypiec, 1998). Seven sets of concerns were confirmed via confirmatory factor analysis, however, structural equation modeling (below) showed that only the nutrition concern factor was related to LFSS purchasing intention (Table 2), therefore the other concern factors are reported elsewhere (Worsley et al., submitted for publication).

**Table 1**
Summary of the demographic and body weight characteristics of the respondents (n = 2204).

| | | The sample (n = 2204) |
|---|---|---|
| Gender % (n) | Male | 44.9 (990) |
| | Female | 55.1 (1214) |
| Age % (n) | 18–24 yrs | 15.1 (332) |
| | 25–34 yrs | 20.1 (443) |
| | 35–44 yrs | 19.8 (436) |
| | 45–54 yrs | 15.7 (346) |
| | 55–64 yrs | 21.6 (476) |
| | 65+ yrs | 7.8 (171) |
| Education % (n) | University | 31.9 (703) |
| | TAFE[1]/trade | 32.7 (721) |
| | Completed year 12 | 16.8 (370) |
| | Year 11 or less | 18.6 (410) |
| Marital status % (n) | Single | 36.9 (813) |
| | Married | 46.7 (1029) |
| | Cohabiting | 13.3 (293) |
| | Widowed | 3.1 (68) |
| Ethnicity % (n) | Australian | 84.4 (1860) |
| | Aboriginal/Torres Strait Islander | 1.7 (38) |
| | Other | 13.9 (306) |
| BMI[2] mean (std. dev.) | | 27.16 (6.86) |
| | Healthy BMI[3] | 37.4 (825) |
| | Overweight | 29.8 (657) |
| | Obese | 27.3 (602) |

Notes: [1]TAFE = Technical and further education.
[2]BMI = body mass index.
[3]Healthy BMI = <25 kg/m², overweight BMI = 25–29 kg/m², obese BMI = ≥30 kg/m².

Consistent with the CFA ratings of the eight nutrition concern items were summed to derive a Nutrition Concerns score (Table 2).

In addition, eight items were presented which related to the respondents' perceived control or influence over the above areas (Table 3). Respondents were asked: *In general, how much influence (or control) do you have over …?* (the issues). Five point response scales ranging from 'none' (1) to 'very much' (5) were employed.

Confirmatory factor analyses of the food concern and control-influence items were conducted to identify and test the construct validity of the factors which represented the main themes of concern and control-influence (Tables 2 and 3). The internal reliabilities of all the scales used in the SEM were high (Tables 2, 3 and 4).

The main LFSS purchasing intention outcome variable (similar to those used in other studies, e.g. Vermeir and Verbeke, 2006) was derived from three items (identified via confirmatory factor analysis of a broader set of purchase intention items): *Examine product labels for the amount of fat, sugar and salt; buy foods low in salt, buy foods low in fat*. Respondents were asked: *How likely are you to do the following actions in the next 3 months?* A five point response scale was used ranging from 'not at all likely' (1) to 'extremely likely' (5), and the item ratings were summed to yield the LFSS purchase intention score.

**Table 2**
The nutrition concerns items and factor identified by confirmatory factor analysis.

| Nutrition concern | Mean | Std. dev. | Standardized factor loadings |
|---|---|---|---|
| 1. Foods high in fat | 3.89 | 1.062 | 0.86 |
| 2. Foods high in sugar | 3.85 | 1.080 | 0.84 |
| 3. The type of fats in the food you eat | 3.77 | 1.092 | 0.84 |
| 4. Foods high in calories | 3.68 | 1.115 | 0.81 |
| 5. Foods high in salt | 3.7 | 1.122 | 0.80 |
| 6. Your health when choosing foods | 3.87 | 1.008 | 0.77 |
| 7. Eating too many processed foods | 3.78 | 1.111 | 0.70 |
| 8. Consuming too little protein | 3.28 | 1.156 | 0.58 |
| Nutrition Concern score (Cronbach's α = 0.92) | 3.74 | 0.87 | |

Note: Mean concern scores were measured on a scale from 1 to 5, where 1 = not concerned and 5 = very concerned. Items 1, 2, 3 formed a shorter subscale (mean = 3.74, std. dev. = 0.87, Cronbach's alpha = 0.88).

*Data analysis*

Descriptive analyses were conducted (via SPSS, 2011) to describe the characteristics of the sample (Table 1), including gender, age, education, ethnicity, marital status, and body mass index (BMI; Table 1).

Structural equation modeling was performed via Mplus 7 (Muthén and Muthén, 1998–2012). The aim of this modeling was to examine the likely direct and indirect pathways from socio-demographic and values variables through perceived concerns to the intention to purchase food products low in fat, sugar or salt (LFSS) and control/influence scales. The robust maximum likelihood (MLR) estimation method was used to account for non-normally distributed data. Model evaluations were examined by chi-square statistics and accompanying significance tests. Goodness-of-fit indices reported are the standardized root mean square residual (SRMR), root mean square error of approximation (RMSEA), Tucker–Lewis index (TLI), and comparative fit index (CFI) (Jackson et al., 2009). When the models were considered to fit the data well, the following criteria were met: chi-square probability $p > .05$, $SRMR < .05$, $RMESA < .05$, $TLI > .95$, and $CFI > .95$.

## Results

*Characteristics of the sample*

As expected the sample broadly represented the general Australian population in terms of gender, age group and educational background (Table 1).

*Results of the confirmatory factor analysis of the consumers' food concerns*

With regard to the nutrition issues, the highest rated concerns were: your health when choosing foods, foods high in fat, sugar, types of fat and processed foods, and least, with consuming too little protein (Table 2).

*The respondents' perceived control or influence over food issues*

Confirmatory factor analysis confirmed our expectation that these items formed two groups: those to do with control over personal health and food buying habits ('control') and those to do with influence over external aspects of the food system ('influence') (Table 3). Generally respondents perceived they had more control over personal factors than over external factors (Table 3).

*Results of the confirmatory factor analysis of the consumers' intentions to purchase low fat, sugar and salt products in next 3 months*

Frequency and descriptive analyses revealed that the majority of respondents intended to buy foods low in sugar, salt and fat (Table 4). Confirmatory factor analysis suggested that three items, intentions to purchase foods low in fat, salt or sugar in the next 3 months yielded a highly reliable scale (Table 4).

*Results of the structural equation modeling*

The fit statistics suggested that the proposed models fitted the data well as indicated by non-significant chi-square statistics, $\chi^2$ (225) = 559.25, p < .01 with a scaling correction for MLR $p = 1.16$. The other fit indices were all in the desired range: CFI = 0.96, TLI = 0.95, RMSEA = 0.04 (90% CI: 0.03, 0.04), and SRMR = 0.03.

Intention to purchase LFSS food products was positively related to influence (*std. Beta* = 0.09, $p < 0.01$), universalism (*std. Beta* = 0.16, $p < 0.01$) and nutrition concern (*std. Beta* = 0.71, $p < 0.01$) and directly related to age (*std. Beta* = 0.06, $p < 0.05$) and education (*std. Beta* = 0.05, $p < 0.05$). Nutrition concerns were positively related to influence (*std. Beta* = 0.16, $p < 0.01$), universalism (*std. Beta* = 0.36, $p < 0.01$),

**Table 3**
Reported perceptions of control or influence over food issues.

| | Mean | Std. dev. | Standardized factor loadings |
|---|---|---|---|
| *Personal control factor (Cronbach's α : 0.63)* | | | |
| 1. In general, how much control do you have over your health status? | 3.90 | 0.951 | 0.83 |
| 2. In general, how much control are you able to exert over the types of food you buy? | 3.91 | 1.053 | 0.56 |
| *Influence on external issues factor (Cronbach's α : 0.84)* | | | |
| 3. In general, how much influence do you feel you have over these environmental issues? | 1.63 | 0.751 | 0.77 |
| 4. In general, how much influence do you feel you have over the treatment of animals in food production? | 1.60 | 0.763 | 0.82 |
| 5. Do you think you can have an influence on the effects of the food system on people? | 1.62 | 0.750 | 0.82 |

age (*std. Beta* = 0.17, *p* < 0.01), and female gender (*std. Beta* = 0.07, *p* < 0.01) but negatively associated with other ethnicity background (*std. Beta* = −0.05, *p* < 0.05). Moreover, universalism was positively linked to health study in school years 11 and 12 (*std. Beta* = 0.08, *p* < 0.05), age (*std. Beta* = 0.24, *p* < 0.01), and female gender (*std. Beta* = 0.28, *p* < 0.01) while influence was positively related to health study in years 11 and 12 (*std. Beta* = 0.12, *p* < 0.01) and education (*std. Beta* = 0.14, *p* < 0.01) but negatively associated with other ethnicity backgrounds (*std. Beta* = −0.09, *p* < 0.05). Furthermore, control was positively associated with influence (*std. Beta* = 0.23, *p* < 0.01) and universalism (*std. Beta* = 0.31, *p* < 0.01). However, 'control' was not associated with LFSS purchasing intention. Marital status and BMI were not significantly related to any mediating or outcome variables and so were not showed in the final model. Almost two thirds (66.8%) of the variance of LFSS purchasing intention was explained by the model as was 16.5% of the control variance.

Table 5 shows the total indirect effects, direct effects, and total effects between demographics, psycho-social characteristics, and LFSS purchasing intention. It can be seen that the direct effects from gender, health study, and ethnicity to LFSS purchasing intention were non-significant. Moreover, the total effect of ethnicity on LFSS purchasing intention was non-significant as the total indirect effect of ethnicity on LFSS purchasing intention was significant on borderline (*p* = 0.05).

**Discussion**

Generally, as hypothesized, these findings are in accordance with the FRLM which proposes that values have distal influence on intentions and behaviors through perceived consequences (which are similar to concerns) as well as the TPB which proposes that beliefs and attitudes (conceptually related to concerns) and self-efficacy predict intentions and thence behavior. In addition, the demographic associations with LFSS purchasing intentions are supported by earlier findings that gender and age played direct roles in predicting nutrition concern; women and older people are more concerned than men and younger people (Herrmann et al., 2000; Miles et al., 2004; Worsley and Scott, 2000); and older people appear to be more concerned about food issues (Hursti et al., 2002; Miles et al., 2004; Verbeke and Viaene, 2000; Worsley and Scott, 2000).

The lack of association of 'control' over personal health and food buying habits was not expected. Perceived control over personal behaviors ('self-efficacy') is a key component of the TPB model (Ajzen, 1991). It may be that in the SEM the purchasing intentions, 'influence' and

nutrition concern variables were assessed at a more general level unlike the more personally specific items used in the assessment of 'control'. Such a mismatch in measurement specificity is likely to weaken associations between the components of attitude–behavior models (Fishbein and Ajzen, 1975) and underestimate the role of the 'control' variable.

Our findings should encourage health promoters and educators. Over half of the respondents intended to purchase LFSS products. Given their interests in the food system and nutritional issues, these may be the same segment of 'concerned consumers' identified in the UK by Weatherell et al. (2003). Of course their purchasing intentions may not result in actual consumption of these products. As noted above, EDNP foods represent a substantial proportion of the national diet (Rangan et al., 2011) and they are likely to be less expensive than LFSS products (Drewnowski, 2010).

The identification of the mediators is useful. While educational background was not associated with LFSS purchasing intentions, age and gender operated through the mediators of influence, nutrition concern and universalism. Unlike stable demographic characteristics, these variables are more malleable and may be influenced through a variety of means such as communication campaigns. Although universalism, is a more stable personal characteristic, it may also be susceptible to change, as suggested many years ago by Rokeach's value change experiments (Rokeach and Cochkane, 1972).

The antecedent position of health study over universalism in the SEM (Fig. 2) suggests that school education may affect the general population. Given the world and community-centered content of Australian home economics and health curricula (VCAA, 2012) the possible influence of such education on these values is unsurprising. Future studies should examine whether the influence of nutrition concerns and universalism values on LFSS purchasing intentions extends to reductions in EDNP purchasing intentions (and behaviors).

The task for health promotion is to help these interested food consumers to convert their intentions into healthier purchasing and consumption habits. This might be done through communications and purchasing policies and environments which foster the translation of intentions into practice (Strategy Unit, 2008). The alteration of attitudinal

**Table 4**
Summary of results of confirmatory factor analysis of LFSS product purchasing intentions.

| Intention to purchase low energy products<br>Cronbach's α = 0.87 | Mean score | Std. dev. | Factor loadings | Percentage of respondents selecting 4 or 5 on the item scales |
|---|---|---|---|---|
| Try to buy food low in sugar | 3.76 | 1.07 | 0.76 | 60.8% |
| Try to buy foods low in salt | 3.66 | 1.11 | 0.73 | 56.7% |
| Try to buy foods low in fat | 3.84 | 1.07 | 0.72 | 64.2% |

Note: Mean intention scores were measured on a scale from 1 to 5, where 1 = not at all likely and 5 = extremely likely.

**Table 5**
Total indirect effect, direct effect, and total effect between demographics, psycho-social characteristics, and LFSS purchasing intention.

| Demographics | Effects | Std beta | Std error | *p* value |
|---|---|---|---|---|
| Age | Total indirect effect | 0.22 | 0.03 | 0.00 |
| | Direct effect | 0.06 | 0.03 | 0.01 |
| | Total effect | 0.28 | 0.03 | 0.00 |
| Gender | Total indirect effect | 0.16 | 0.02 | 0.00 |
| | Direct effect | 0.01 | 0.02 | 0.75 |
| | Total effect | 0.17 | 0.03 | 0.00 |
| Education | Total indirect effect | 0.04 | 0.03 | 0.14 |
| | Direct effect | 0.05 | 0.02 | 0.03 |
| | Total effect | 0.09 | 0.03 | 0.01 |
| Health study | Total indirect effect | 0.06 | 0.02 | 0.00 |
| | Direct effect | 0.02 | 0.02 | 0.31 |
| | Total effect | 0.08 | 0.03 | 0.00 |
| Ethnicity | Total indirect effect | −0.05 | 0.03 | 0.05 |
| | Direct effect | 0.02 | 0.03 | 0.55 |
| | Total effect | −0.03 | 0.04 | 0.41 |

*Note*: *p<0.05; **p<0.01; ns=non-significant

**Fig. 2.** Summary of the structural relationships between the variables derived from structural equation modeling. The standardized coefficients are shown. *Note*: *p < 0.05; **p < 0.01; ns = non-significant.

and values factors through school education, communication programs and micro-environmental change (e.g. Geier et al., 2012; Wansink, 2004; Wansink and Huckabee, 2005) may raise levels of concern and thus healthier intentions and purchasing, especially among those who are currently unconcerned (Hawkins et al., 2008).

However, although consumers are willing to consume healthy foods the shopping environment often does not support them to do so (Cameron et al., 2013; Thornton et al., 2012, 2013). Therefore, regulatory policies which discourage the sale of EDNP products are also required (Nederkoorn et al., 2011; Moodie et al., 2013; Pomeranz and Brownell, 2011). Moreover, the success of regulatory policies is likely to be facilitated by the development of civic community support brought about by such grassroots communication programs (Laverack, 2010; Lobstein et al., 2013).

*Limitations and future research*

Several limitations underlie this research. They provide opportunities for further research. First, this was a cross-sectional survey so no direct causal attributions can be drawn from the findings themselves. The structural equation model in Fig. 2 remains a hypothetical model which the data suggest. Further longitudinal or experimental studies are required to test the causal influence of the predictor variables, especially the mediating variables. Second, this was an on-line survey; random probability sampling was not used, mainly because of cost and resource limitations but also because such samples rarely provide representative population samples in today's society. It should be noted that the representativeness of the sample is of secondary importance because of the hypothesis-driven nature of this study which provided sufficient heterogeneity to test the hypotheses. However, further replication of the findings would be useful. A final limitation relates to the nature of the variables which were measured. No behavioral measures of purchasing were included (purchasing intention may not translate into actual purchasing) and the breadth of the influence, control and intention variables might be extended. Similarly, other values in addition to universalism may influence purchasing intentions and behaviors and could be

included in future studies. Furthermore, the possible effects of other demographic variables, especially household income, need to be considered in future modeling.

**Conclusions**

Nutrition concerns, perceived influence over food issues, and universalism values significantly predicted consumers' intentions to purchase low fat, sugar and salt (LFSS) food products as well as perceived control over personal health and food buying. These three variables were important intermediary variables in the pathway between the demographic characteristics of consumers and their LFSS purchasing intentions. These results suggest that nutrition concerns may be a useful focus of communication programs aimed at increasing the consumption of foods and beverages low in fat, sugar and salt.

**Conflict of interest statement**

The authors declare that there are no conflicts of interest.

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