



Country context, personal values and nutrition trust: Associations with perceptions of beverage healthiness in five countries in the Asia Pacific region



Naomi Thomson^{a,*}, Anthony Worsley^a, Wei Wang^b, Rani Sarmugam^{a,c}, Quynh Pham^a, Judhiastuty Februhartanty^d

^a School of Exercise and Nutrition Sciences, Deakin University, 221 Burwood Highway, Burwood, VIC 3125, Australia

^b School of Nursing and Midwifery, Deakin University, 221 Burwood Highway, Burwood, VIC 3125, Australia

^c Health Promotion Board, 3 Second Hospital Avenue, Singapore 168937, Singapore

^d SEAMEO Regional Centre for Food and Nutrition, PO Box 3852, Jakarta 10038, Indonesia

ARTICLE INFO

Keywords:

Consumer perceptions
Beverage healthiness
Personal values
Survey
Asia Pacific
Nutrition trust

ABSTRACT

The increasing consumption of sugar-sweetened beverages in middle-income countries is having significant detrimental health effects. Beverage choices are influenced by consumers' perceptions of products. Understanding the factors influencing perceptions is essential to reducing consumption of unhealthy beverages. To date little research has been conducted in this area, particularly outside of Western contexts.

This study aimed to examine the health-related perceptions of non-alcoholic beverages and associated factors in five countries in the Asia Pacific region.

A cross-sectional online survey was administered to middle-class household food providers in Melbourne, Shanghai, Vietnam, Indonesia and Singapore ($n = 3951$, 57% female). Participants rated the healthiness of common beverages and information on demographics, trust in sources of nutrition information and personal values was obtained. Data was analysed via principal components analysis and multiple linear regressions.

Results demonstrated that both demographic and psychographic factors were associated with the perceived healthiness of beverages. Respondents perceived beverage healthiness in four types: sweetened, heavily marketed beverages, milk-based and children's products, unsweetened, minimally processed beverages and waters. The perceived healthiness of sweetened, heavily marketed beverages and milk-based and children's products was higher in Vietnam, Shanghai and Indonesia than in Singapore and Melbourne and positively associated with trust in industry sources of nutrition information and hedonist values. Perceiving unsweetened, minimally processed beverages as healthy was associated with trust in health authorities and equality-nature values.

Reducing the perceived healthiness and consumption of unhealthy drinks requires nutrition education that responds to economic and cultural contexts and frames messages to appeal to prevailing personal values.

1. Introduction

The rapid urbanisation and development of middle income countries (MICs) is resulting in a 'nutrition transition', characterised by increased consumption of meat, dairy and energy-dense and nutrient poor (EDNP) products, including sugar-sweetened beverages (SSBs) (Dans, Ng, Varghese, & Tai, 2011; Moodie et al., 2013; Pingali, 2007; Popkin, Adair, & Ng, 2012). This dietary shift has significant negative public health implications and is directly linked to an increased risk of obesity and non-communicable diseases (NCDs), two leading causes of death globally (Baker & Friel, 2014; Pingali, 2007; Popkin & Hawkes,

2015; Popkin et al., 2012; World Health Organisation, 2014).

The definition of SSBs varies, however this term generally refers to drinks with extrinsically added sugars, including (but not limited to) sugar-sweetened carbonated or 'soft' drinks, non-100% fruit juices and drinks, ready-to-drink (RTD) teas and coffees, energy and sports drinks and flavoured milks. Excessive intake of SSBs is associated with weight gain and obesity (de Ruyter, Olthof, Seidell, & Katan, 2012; Ebbeling et al., 2012; Malik, Pan, Willett, & Hu, 2013; Vartanian, Schwartz, & Brownell, 2007), as well as increased risk of developing type 2 diabetes, metabolic syndrome, high blood pressure and cardiovascular disease (Hu & Malik, 2010; InterAct Consortium et al., 2013;

* Corresponding author.

E-mail address: naomithom@gmail.com (N. Thomson).

Janssens et al., 1999; Malik et al., 2010; Singh et al., 2015; Stanhope et al., 2009). Furthermore, due to their high-energy content and lack of associated nutrient density, high intake of SSBs is associated with decreased nutrient density of the overall diet (Vartanian et al., 2007).

Over half of the world's population lives in Asia (United Nations Department of Economic and Social Affairs, 2015). This region is developing rapidly and has the fastest growing middle-class worldwide, a population group that is projected to be a significant future driver of the global economy and the spread of consumerism (Asian Development Bank, 2010; Kharas, 2010). While the consumption of SSBs appears to be plateauing, or even declining, in high-income countries (HICs) such as Singapore and Australia, their popularity in Asian MICs, particularly China and Vietnam, is growing (Baker & Friel, 2014). The potential negative health impact of this trend is amplified by the fact that Asian populations are understood to be more susceptible to diet-related NCDs (Ramachandran, Ma, & Snehalatha, 2010; Wang & Zhai, 2013).

1.1. Perceptions of beverage healthiness

Limiting intake of SSBs and promoting healthy diets is critical to reducing the impact of NCDs and obesity in Asia (Beaglehole et al., 2011; Di Cesare et al., 2013). Achieving this requires insight into the factors that motivate beverage choices, particularly amongst household food providers. These gatekeepers have major influence on household dietary habits as they decide on the types of food and beverages that are purchased and consumed (Birch & Davison, 2001; Reid, Worsley, & Mavondo, 2015).

Beverage choices are heavily influenced by consumers' perceptions of a product (Furst, Connors, Bisogni, Sobal, & Falk, 1996; Grunert, 2002; Sun, 2008). The perception of 'healthiness' appears to be an increasingly important motivating factor in food and beverage selection and has been linked to increased consumption (Kim & House, 2014; Munsell, Harris, Sarda, & Schwartz, 2016). This is a complex quality construct, which may be influenced by multiple demographic and psychological or 'psychographic' factors, including personal values (Feather, 1995; Grunert, Brunso, & Bisp, 1993; Prescott, Young, O'Neill, Yau, & Stevens, 2002; Russell, Worsley, & Liem, 2015). Consequently, health perceptions may not always be nutritionally accurate. There are widespread misperceptions and false beliefs amongst food providers regarding the nutritional value of many beverages, particularly with regards to sugar content (Bucher & Siegrist, 2015; Munsell et al., 2016; Rampersaud, Kim, Gao, & House, 2014; Sutterlin & Siegrist, 2015). Current evidence is primarily focused on Western populations; little research has been conducted in Asia or in MICs. Furthermore, there is limited understanding of the psychographic variables associated with beverage perceptions. This study was designed to fill this gap in the literature.

1.2. Study aim

The aim of this study was to examine household food providers' perceptions of the healthiness of non-alcoholic beverages in five urban locations in the Asia Pacific region that embodied different stages of the nutrition transition: HICs Australia (Melbourne) and Singapore, upper MIC China (Shanghai) and lower MICs Vietnam and Indonesia (The World Bank, 2016). We hypothesised that age, gender, household composition, country of residence, trust in sources of nutrition information, and personal values would each be associated with perceptions of healthiness, as follows:

1.2.1. Demographic factors

Age and gender may be significant factors in SSB consumption, with younger age groups and men more likely to consume SSBs and be less aware of their negative health impacts (Gravel et al., 2012; Kim & House, 2014; Park, Onufrak, Sherry, & Blanck, 2014; Pollard

et al., 2016; Rampersaud et al., 2014; Reicks et al., 2012). Co-habitation and presence of children in the household has also been associated with diet healthiness and consumption of EDNP products (Elstgeest, Mishra, & Dobson, 2012; Farragher, Wang, & Worsley, 2016). Our first hypothesis (H1) was that women, older persons, married people and those living with children would perceive SSBs as less healthy than men, younger respondents and those living alone.

1.2.2. Country and level of economic development

There are general trends in beverage consumption evident across the Asia Pacific, however there are also significant country-level differences, reflecting the influence of culture and context (Baker & Friel, 2014; Prescott, Young, O'Neill, Yau, & Stevens, 2002). In MICs, reduced transport and communication costs coupled with trade liberalisation have fostered the infiltration of foreign investment and large western companies, resulting in increased marketing of EDNP products, often with a lack of associated regulation (Dans et al., 2011; Hawkes, 2002; Pingali, 2007; Schram et al., 2015). In contrast, HICs have been exposed to product marketing for longer than MICs, and thus their residents may be more critical of these messages (Hawkes, 2002; Pingali, 2007). Our second hypothesis (H2) was that consumers' country of residence would be significantly associated with their perceptions of beverage healthiness, with those in HICs (Australia and Singapore) less likely to rate SSBs as healthy compared to consumers in MICs (China, Indonesia, Vietnam).

1.2.3. Trust in sources of nutrition information

Healthiness is a 'credence' characteristic in that consumers must rely on the information given by others to ascertain its presence (Grunert, 2002). Sources of nutrition information fall into three main categories: industry sources (e.g. soft drink manufacturers), health authorities (e.g. doctors and dietitians) and social sources (e.g. peers) (Worsley & Lea, 2003). Information provided by industry via marketing, branding and explicit health claims exerts significant power over the ways beverages are perceived (Grunert, Bech-Larsen, & Bredahl, 2000; Skaczkowski, Durkin, Kashima, & Wakefield, 2016). Much of this information aims to appeal to consumer's psychogenic needs, such as pleasure, excitement and the need for social acceptance, which is likely to be in direct contrast with the nutrition-focused guidance provided by health authorities (De Jong et al., 2017; Hawkes, 2002). There has been an increase in the marketing and advertising of EDNP products in the Asia Pacific, with SSBs now the most commonly advertised EDNP item in the region (Kelly et al., 2016). Our third hypothesis (H3) was that those consumers placing greater trust in information from industry sources would be more likely to perceive SSBs as healthy than other people; while those who trusted health authority sources of nutrition information would be less likely to perceive SSBs as healthy compared to other people.

1.2.4. Personal values

Personal values are guiding principles that incorporate a person's beliefs about what constitutes a desirable outcome and so may influence the perception of a beverage as 'healthy' or 'unhealthy' (Feather, 1995). Schwartz (1992) identified a set of personal values that are shared across cultures. These include self-transcendence (incorporating universalism, equality, benevolence and a focus on caring for others and the environment); tradition-security-conformity (focused on valuing tradition, custom and various types of security); and hedonism (focused on achieving excitement and pleasure) (Schwartz, 1992). Australian research has demonstrated an association between universalism and consumption of healthier foods (Farragher et al., 2016) and a study in China revealed a positive association between tradition, security and benevolence and healthier beverage choices (Lee, Lusk, Miroso, & Oey, 2014). In contrast, hedonism is negatively associated with self-transcendent values (Schwartz, 1992) and consumers ascribing to this value set are more likely to respond positively to exciting imagery and a focus on



در اجرای درخواست شما مشکلی رخ داده است

با سلام ☐ متأسفانه
مشکلی در فرایند
اجرای درخواست شما
رخ داده است ☐

همکاران ما در حال تلاش برای رفع این

مشکل هستند ☐

لطفاً درخواست خود را در ساعات دیگری

مجدداً تکرار فرمایید و اگر باز هم با این

مشکل رو به رو شدید، از طریق فرم تماس

با ما به واحد پشتیبانی اطلاع دهید ☐

برای یافتن مطلب مورد نظر خود می

توانید از روش های جستجوی زیر استفاده

فرمایید :

جستجو در میان موضوعات

برای جستجو در میان موضوعات، به محض این که عبارت خود را در فیلد زیر بنویسید، موضوع های مرتبط در درخت سمت چپ با رنگ متمایزی مشخص می شوند.

جستجو ...

جستجو در میان مقالات

اگر موضوع مورد نظر شما در لیست موضوعات اصلی وجود نداشته، با استفاده از فیلد زیر می توانید آن را در بین کل مقاله های سایت جستجو فرمایید.

جستجو ...

جستجو

لیست
درختی
موضوعات

- الگوریتم های هیوریستیک + <
- بازاریابی و مدیریت بازار + <
- حسابداری و حسابرسی + <
- روش های آماری + <
- سازمان و مدیریت + <
- سیستم های اطلاعاتی + <
- علوم اقتصادی + <
- مدیریت استراتژیک + <
- مدیریت امور فرهنگی + <
- مدیریت تولید + <
- مدیریت دولتی + <
- مدیریت رفتار سازمانی + <
- مدیریت مالی + <
- مدیریت منابع انسانی + <
- مطالعات اسلامی + <
- کارآفرینی و مدیریت کسب و کار + <

تماس با واحد پشتیبانی

همکاران ما در واحد پشتیبانی آمادگی دارند تمامی درخواست های شما عزیزان را بررسی نموده و در اسرع وقت رسیدگی نمایند.

پیگیری خرید مقاله

پس از خرید هر مقاله، یک کد رهگیری منحصر به فرد به شما تقدیم خواهد شد که با استفاده از آن می توانید وضعیت خرید خود را پیگیری فرمایید.

کد رهگیری

ارسال

پیگیری سفارش ترجمه

با ثبت کد رهگیری پرداخت، می توانید سفارش خود را پیگیری نموده و به محض اتمام ترجمه، فایل ترجمه مقاله خود را دانلود نمایید □

کد رهگیری

ارسال

کلیه حقوق برای «مرجع مقالات ISI» در ایران محفوظ است □

g+