# YOUNG ADOLESCENTS' EXPERIENCES AND VIEWS ON EATING AND FOOD


## ABSTRACT

**Purpose** – Poor eating habits established during adolescence are likely to lead to negative long-term health consequences. The childhood obesity epidemic is a growing public health concern, largely attributed to obesogenic environments. This study explores the multiple factors contributing positively or negatively to young consumers' attitudes towards their food consumption.

**Methodology** – Forty-two 11- to 13-year-olds (24 males and 18 females) from three secondary schools in Wales participated in five focus group discussions. The process of thematic analysis resulted in several identified themes that influenced the young consumers' eating habits.

**Findings** – Extrapersonal factors compromised: education, peer pressure, parenting, availability and social media; and, intrapersonal factors included: health consciousness, taste preferences, convenience and price consciousness. Contrary to previous research, the adolescent participants perceived their parents as more influential than their peer group, even during decision-making in the school canteen.

**Originality** – A novel connection between peer pressure and convenience was discovered. Multiple factors contribute to young consumers' attitudes towards food and their dietary habits.

**Practical Implications** – These research findings are beneficial for policy-makers working to develop an age-appropriate multi-factorial approach to promote healthful dietary practices amongst young consumers. For instance, increasing easily accessible food-to-go choices that are not only convenient to purchase and consume, yet healthful could improve dietary intake.



**Key words:** adolescents, food choice, school, peer pressure, healthful eating, convenience, taste preferences, education

Article classification: Research Paper

## INTRODUCTION

The World Health Organisation states that overweight and obesity have now reached 'epidemic' proportions (World Health Organisation, 2018). Physically, individuals who are overweight or obese are at a greater risk for several non-communicable diseases (NCDs), elevated cholesterol, hypertension and cardiovascular diseases (CVDs) (World Health Organisation, 2015; Global Burden of Disesase Mortality and Causes of Death Collaborators, 2016). Short-term consequences of poor diet are linked to lowered cognitive capabilities, reduced academic achievement and a weakened immunity (Benton, 2012; Myles, 2014; Burrows *et al*., 2017). Psychological problems may result because adolescents with a higher Body Mass Index (BMI) are more likely to be bullied (Puhl *et al*., 2017).

Adolescents develop physically and psychologically as they mature from childhood into adulthood (Viner *et al*., 2015). Meeting the nutritional requirements for the adolescents' growth spurt is important. But excessive consumption of energy-dense foods can contribute to the onset of overweight and obesity (Das *et al.*, 2017). Although it is important to eat healthfully during the period of adolescence for optimal growth and development, research continues to show poor eating habits and inadequate fruit and vegetable consumption that fails to meet governmental recommendations (National Health Service, 2017).

Eating tends to be an inherently social activity and social norms are 'implicit codes of conduct that provide a guide to appropriate action.' These may be directly influential (through cultural rules) or indirectly influential (through situational cues such as portion sizes) (Higgs, 2015: p. 38). Social Cognitive Theory (SCT) is a triadic, reciprocal

behavioural model positing that learning occurs through continuing socialisation and 'interaction between personal, behavioural, and environmental determinants' (Bandura, 1977: p. 194). Conforming to peer pressure and social norms is typically characteristic of adolescence. Thus, SCT is applicable to studying young consumers' behaviour because this age group is particularly vulnerable to societal and peer pressure. The relationship between peer relationships amongst youth influencing problematic behaviour growth is well established (Gifford-Smith *et al*., 2005). Large scale research demonstrates that adolescent friendship groups display similar eating patterns (Bruening *et al*., 2012). Potentially this is because young consumers want to conform to social norms by emulating their peer group's eating behaviours. Research has found that between the ages of 10 and 14, adolescents' resistance to peer pressure is particularly low (Steinberg and Monahan, 2007). Social norms theory is a particular issue with regard to food consumption as it infers adolescents hold a misrepresentation of their peers' dietary intake. False normative beliefs, which are inconsistent with true behaviours, can result in thoughts of unhealthful dietary social comparison and subsequently lead to engaging in unhealthful dietary practice (Higgs and Thomas, 2016). A study involving older adolescents found that individuals commonly hold misperceptions about their peers' dietary behaviour; such as, consuming more unhealthful snacks and fewer fruits and vegetables (Lally, Bartle and Wardle, 2011).

The Ecological Systems Theory (EST) provides a comprehensive overview of how individuals' behaviour is influenced by multiple levels. These four levels are: (i) microsystem (immediate family and the home environment); (ii) mesosystem (local neighbourhood and school); (iii) exosystem (community and mass media); and, (iv) macrosystem (cultural beliefs and values) (Bronfenbrenner, 1994). Davison and Birch

applied the EST to demonstrate how the aetiology of children's overweight status may result from a variety of factors across different levels. They highlight the importance of studying weight status from a broad context of angles (Davison and Birch, 2001).

Both SCT and EST are appropriate frameworks for investigating young consumers' dietary attitudes and behaviour because they emphasise the influence of various socio environmental (extrapersonal) and individual (intrapersonal) factors that influence young consumers' food consumption. Therefore, as Beales and Kulick (2013) state, attributing the increase in overweight and obesity over the last few decades to only one factor would be overly simplistic. Rather, a multi-factorial view must be taken. Another considerable factor is obesogenic environments encouraging energy-dense foods and sedentary lifestyles becoming normative (Lake and Townshend, 2006). During the period of adolescence this becomes an issue because reduced parental and intra-familial factors, increased nutritional autonomy, vulnerability to peer pressure and a large choice of foods in secondary school canteens all contribute to changing eating habits amongst adolescents (Brannen and Storey, 1998; Bassett, Chapman and Beagan, 2008; Fitzgerald *et al*., 2010). It is important to study the school canteen because the eating environment is significant to adolescents' peer group interactions and the foods that they are exposed to (Dimbleby and Vincent, 2013).

Notably, the majority of overweight or obese children will continue this trajectory into adulthood (Ward *et al*., 2017). This suggests the importance of research into the multitude of influential factors during adolescence when independence and autonomy are developed. Obtaining an understanding of these will assist in the development of marketing and policy making to stimulate behavioural change promoting healthful decision-making around food for this age group. Although previous research has

investigated factors influencing adolescents' attitudes and consumption of foods, the research landscape is ever changing and remains highly topical because technology develops, governments introduce new regulations and the curriculum changes. Whilst qualitative studies exploring this subject area have been carried out in parts of the UK, no similar study with young consumers has been conducted in Wales (McKinley, Lowis, Robson, Wallace, Morrissey, Moran, *et al*., 2005; Warren *et al*., 2008; Fitzgerald *et al*., 2010). The current study contributes to existing literature by exploring young adolescents' (aged 11- to 13-years-old) own perspectives of the extrapersonal and intrapersonal factors determining their food choice and attitudes towards foods.

## METHODS

### *Procedure*

A qualitative approach was taken to facilitate the exploration of adolescents' attitudes, behaviours, routines, food consumption and the factors that influence these (Denscombe, 2017). Focus groups were chosen because they are a well-established technique for researching eating habits (Jenkins and Harrison, 1990). Discussions allow for in-depth data collection from a multiplicity of views whilst negating the exclusion of participants with poor literacy skills (Silverman, 2010; Krueger and Casey, 2014). The main disadvantage of qualitative research is subjective interpretations. To counteract this, reflexivity and an inner awareness of reactions helped bring to light subjective feelings and thoughts, making the qualitative research more rigorous (Finlay and Gough, 2003).

A semi-structured questioning schedule was developed following a review of the literature to stimulate discussion and ensure comparability between the transcripts whilst

enabling the researcher to engage with any unanticipated topics (Patton, 2015) (see Appendix A). A nonthreatening ‘warm up’ activity asking participants to take turns naming their favourite vegetable encouraged all the participants to participate. This helped to build rapport with the focus group participants (Christensen, 2004).

Access to adolescent participants was obtained from three head teachers at secondary schools in South Wales, who acted as gatekeepers. All of the schools operated a ‘closed-gate policy,’ banning adolescents from leaving the school site to purchase food from external vendors. Participating schools had Free School Meal (FSM) rates below the most recent 17.4% national average in Wales (The Children's Society, 2018). FSM eligibility is commonly used to indicate socio-economic disadvantage. With FSM eligibility of 3.5%, 11.6% and 5.6%, the three schools in this study have student populations which are classified as middle-class (Gorard, 2012; Ilie, Sutherland and Vignoles, 2017). The identified schools were generalisable to the wider sample of middle-class adolescents. Students aged 11- to 13-years-old were sampled. The funding body requested a middle-class sample as this is their current target market demographic.

Ethics approval was granted via the school-level ethics committee. Staff recruited seven to twelve adolescents to take part in each of the five mixed gender and mixed year group discussions. Selection of students with an inherent interest in the topic was discouraged as this would be a biased sample. Two information sheets were developed detailing the focus group study and ethical protocol. One information sheet was developed for parents/caregivers and another sheet using age-appropriate language and terminology for the adolescent participants detailing the focus group study and ethical protocol. The adolescents were under the age of legal consent, so they provided assent alongside their

parent/caregivers informed consent (Phelan and Kinsella, 2013). School-headed information packs and compulsory forms were sent home with students.

Focus groups were convened on the school premises and students were permitted to miss their lessons to attend. A member of school staff was present for legal reasons. Prior to beginning the discussions, participants were reminded that their participation was voluntary and they could opt out at any time without consequence. The confidentiality of audio recordings was outlined and adolescents were reassured that their answers would not be disclosed to teachers or parents. To minimise lesson disruption and maintain adolescents' enthusiastic engagement, each focus group discussion lasted from 25 to 35 minutes. The discussions ended once all questions were addressed and participants had nothing further to say. Five focus groups composed of young consumers aged 11- to 13-years old. 24 males and 18 females partook in the study.

***Data Analysis***

Focus group sessions were facilitated, audio recorded and transcribed verbatim electronically by the lead author within 24 hours of data collection. All resultant transcripts were printed and reread several times for familiarisation. This initiated the analysis process and a coding framework. An open coding, abductive approach was applied to the thematic analysis because there were preconceived ideas based upon existing theoretical knowledge rather than categorising wholly based on subjective inferences (Braun and Clarke, 2013; Miles, Huberman and Saldana, 2020). Ensuing themes were discussed amongst the study researchers to reach consensus and to ensure all pertinent data was included (Maxwell, 2013). Codes were thematically organised into categories relating to EST levels. Hand written commentary was completed prior to

further coding and categorisation using the QSR NVivo10 (Copyright® QSR International Pty Ltd) data management software. The software aided retrieval of coded chunks of transcripts and data extracts were thematically analysed to elucidate the key themes (Bazeley and Jackson, 2013).

## RESULTS

Thematic analysis revealed nine themes influencing young adolescents' decision-making in relation to food. These can be segregated into two categories. First, extrapersonal factors: education, peer pressure, parenting, availability and social media. Secondly, intrapersonal factors: health consciousness, taste preferences, convenience and price consciousness.

### *Extrapersonal Factors That Drive Food Choice*

#### *Education*

Participants exhibited a good level of nutritional understanding stemming from their Food Technology lessons at school and were occasionally able to practice cookery skills. Most were keen to have more lessons: "I reckon we should have more of them though, because not everybody knows about all the different food types." Contrariwise, others objected: "I think that at our age we know what is healthy. But it is our choice whether we listen to it. And we don't really need to listen to it…" There was a clear dichotomisation of foods into either 'good' or 'bad' categories. Young consumers associated 'healthy' with consumption of 'good' foods such fruit and vegetables. Vice versa, 'bad' food and drink consumption such as sweetened beverages were recognised as unhealthful dietary components. Splitting foods in this polarised way could prove a barrier to healthful eating

because adolescents associated certain foods with being 'healthy' rather than the entirety of dietary and lifestyle behaviours. Some 'healthy' lifestyle factors were mentioned: "balance," "wellbeing," "doing physical activity" and "energy." A couple of participants emphasised the need to be healthy to avoid becoming "fat" and long-term health conditions such as Type II Diabetes.

*Peer Pressure*

Colloquial language was used by the researcher when discussing with participants to help them feel more at ease (Kim, 2012). Nonetheless, participants were unwilling to reveal that their peers influenced them and that SCT contributed to their decision-making around food. Individuality was evident amongst participants, who claimed to not copy one another "because it is your own decision, you can make your decision to choose what you eat, [it's] not everyone else's [decision]." In addition to independent decision-making, there was the opinion that peers did not care, let alone comment and this elicited endorsement from the rest of the participants. Further questioning possibly indicated peer pressure and feelings of embarrassment to eating healthfully, but participants only provided indirect responses: "if you can't beat them, join them." Conforming to peer group norms was frowned upon, particularly amongst male participants, as one stated: "I don't think anybody really cares about what others are eating." Nevertheless, the absence of peer commentary could become problematic if peers felt unable to "point it out" or "say anything" that their friends' continued to eat unhealthfully.

A novel finding was the relationship between peer pressure and convenience. Participants explained how they would opt for the same or similar options to their peers so they could queue up together, and more importantly, if peers finished eating first then "they can just

leave." Peers eating "fast foods" "will be out before you because they can just quickly eat it and go." Fear of being left eating alone, but not wanting to "waste" their food, meant adolescents would eat similarly to their friends. For example, "if you have got a big meal that is healthy and they have got a small meal that isn't very healthy, they will probably get out first." One explained the dilemma, "it is not the fact that you don't want to fit in, it is more that you want to go out with them and not be left in the canteen."

*Parenting*

Parenting sits within the microsystem level of the EST and was deemed vitally important. Congruence across all focus group discussions revealed that parenting significantly influenced adolescents' decision-making around food. Foods consumed in their parents' presence were healthful and parents encouraged healthful dietary practices in their absence. Packed lunches enabled parents to control what exactly adolescents ate. Regular family mealtimes were usually inclusive of vegetables but most adolescents were able to negotiate which vegetables they ate rather than the parents enforcing consumption of disliked vegetables. Some parents used an after dinner dessert as a reward for eating vegetables. Parents overtly controlled food availability in some adolescents' homes, as described by one female adolescent: "We don't have anything unhealthy in the cupboards."

Moreover, covert snacking control was evident: "I have to ask before taking anything." Participants positively perceived parental modelling; mentioning that observing their parents eating healthful foods, such as vegetables, increased the likelihood of themselves consuming them. Early introduction and familiarisation with a wide variety of foods was cited as important: "so that you can learn to like them more." Yet, coercion and "forcing"

vegetable consumption may “backfire,” making individuals dislike those foods in their later life. Although diminishing parental control was widely reported as adolescents become more autonomous, many focus group participants felt obligated to eat healthfully in the school canteen because they did not want to make their parents “worried” or “ruin” the healthful eating habits established at home. Autonomously eating healthfully indicated that a lack of parental presence was not a substantial barrier to eating healthfully.

*Availability*

The availability of healthful foods was not perceived as a barrier at school, because: “there is always a healthy option, it is never impossible.” Despite these healthful options, participants described the vegetables as “nasty” and explained that fruit bowls lacked presence. School canteen fruit lacked aesthetic appeal and were described as “old and mouldy” as well as “about to go off.” In comparison, fruit bowls at home, inspired unprompted fruit consumption. Participants advocated for healthful foods to look more aesthetically appealing to encourage selection and subsequent consumption. Although healthful foods were readily available at school, the high availability of chocolate brownies, cookies and baked sweet foods adversely affected decision-making. A couple of participants suggested that the school should stop offering these tempting foods, declaring that they would eat better if the only option was healthful foods: “that looks nice, let me have that instead of what I was going to have which was healthy.” Lunchtime food availability was an issue because long queues and limited food meant students occasionally missed their desired options.

*Social Media*

The majority of participants supposed that the exosystem level of social media did not influence their attitudes or food consumption as much as older adults believe. Scrolling through social media apps such as Instagram had the potential to influence food cravings in either an unhealthful way or healthful way dependent on whom individuals followed. The positive influence of social media was mentioned, particularly with the rise of healthful eating and other trends such as plant-based diets. Young consumers rarely saw healthful foods advertised and found McDonald's and confectionery goods advertising persuasive for instilling desire. Body image concerns were evident, as participants believed that they needed to prepare their bodies for the summer when they would wear clothing that was more revealing. However, discernment and being "careful" were deemed important regarding social media usage because the portrayal of unattainable "perfect bodies" could lead individuals to restrict their food intake to control their weight. Consensually, participants believed more advertising encouraging healthful eating would be positive.

### ***Intrapersonal Factors That Drive Food Choice***

#### *Health Consciousness*

An unanticipated degree of health consciousness revealed that many were taking pre-emptive actions to ensure they remained healthy, with one stating, "You should like eat the perfect amounts of everything because too much of one thing is always bad." Participants understood that regular meals were conducive to good health and those who skipped breakfast were quick to admit that doing so was not healthful. Participants strongly opposed takeaways and fast foods, and were critical of individuals whom

regularly consumed “junk” foods. Scepticism of healthful foods marketing health claims was evident. For instance, smoothies contained “loads of sugars” and fruit juices were considered full of “bad sugars.” Both male and female participants ascribed their health consciousness to wanting to keep fit, lose weight and avoiding feelings of guilt if they succumbed to food cravings. Self-control was cited, with several balancing unhealthful foods and healthful foods, limiting sugar intake, and only drinking water and milk. A few described how they did not crave certain foods in the canteen such as the puddings, paninis or the pizza because they had never allowed themselves to eat them. Thus, having nutritional autonomy at school did not result in unhealthful decision-making concerning foods. Interestingly, despite the majority claiming they failed to consume the governmental recommendation of five portions of fruit and vegetables daily, only a few recognised room for improvement. This pertained to a gap between nutritional knowledge and their behaviour.

*Taste Preferences*

Notably, taste preferences were one of the most significant intrapersonal factors influencing food consumption. Favoured vegetables were carrots, cucumber and broccoli because they had an acceptable “flavour,” “sweetness,” were “juicy” and versatile: “You can eat carrots raw or cooked. They can pretty much go with any meal.” Frequently mentioned disliked vegetables were peas, sprouts and cauliflower, which were negatively attributed as “slimy,” tasting “bitter” or lacking any taste at all. The taste of vegetables impeded consumption, with the majority preferring fruit and rarely consuming vegetables in a snacking context out of “choice.” One declared they would only resort to eating vegetables if “stranded on a desert island.” Adolescents confessed preferring the taste of unhealthful foods and would opt for these rather than healthful choices. For example, “If

I had to pick between like a chocolate or something like a vegetable then I would pick chocolate." The majority of participants craved unhealthful foods, perceiving them to taste better than healthful foods despite being "bad" for you. Adolescents identified bringing a packed lunch into school as a way to ensure that they could eat exactly what they wanted to, with a few alternating between packed lunches and school lunches depending on the school canteen menu. Although there was a vast choice in the school canteen menu, the majority opted for the same familiar options almost on a daily basis.

*Convenience*

Time constraints were identified as a barrier at the mesosystem level of the EST to eating healthfully throughout adolescents' daily routines. Breakfast was skipped by individuals not feeling hungry upon waking and by others wanting to sleep for longer. Participants reported that long queues dissuaded them from purchasing food in the school canteen: "If I fancy something to eat, and the queue is really long then I won't go," because queuing all lunchtime was "pointless" in case "by the time you get there, the food will all be gone." Some avoided queueing by going to the school library or spending time outside before their lunch, but this meant that the more attractive options had run out and individuals risked missing "the stuff you want" and there being "nothing" appealing left. Others favoured packed lunches from a convenience point of view. Most shunned a hot main meal at lunchtime, but whether this was due convenience or taste preferences was unclear: "because it is quick" or, "it is both." 25-minute lunchtimes at one school meant slower students lacked sufficient time to eat, and even had to throw away their food when the afternoon lessons bell rung. Aside from this, extracurricular activities and good weather resulted in students selecting convenient options when it was "unthinkable to eat hot food" and they wanted to minimise the time "wasted" eating indoors. Many adolescents

considered the convenient options available in the school canteen as predominantly unhealthful. Although fruit was considered convenient, one male participant stated they did not "have the time" to eat apples.

*Price Consciousness*

Several mentioned that the cost of healthful foods was prohibitively expensive, possibly resulting from socialisation and SCT. As lunchtime menu items were pricier, it emerged that some purchased food at break time instead. Students could purchase "slices and slices" of toast priced at £0.16 which was filling and low risk. Choosing an unfamiliar healthful dish at lunchtime would be much more costly and there was a degree of uncertainty regarding the taste or fillingness. Several participants disclosed they wanted to avoid spending too much money on the "expensive" food available in the school canteen because their parents would be disappointed and "get mad at you if you spend too much money." Budgeting skills were required as many possessed limited allowances, and would prepare a packed lunch if they lacked sufficient funds to purchase food at school. The researcher asked, 'What do you think would make it easier for young people to eat more vegetables and healthy foods?' Adolescents suggested increasing the price of unhealthful foods would discourage price conscious students from eating unhealthily. Additionally, reducing the price of healthful foods to ensure it is not "really expensive because nobody would buy a piece of fruit if it is [priced the same] as a brownie."

## DISCUSSION

This study sought to explore the factors influencing 11- to 13-year-old Welsh adolescents' attitudes, routines and behaviours related to food consumption. Consistent with previous

studies, numerous extrapersonal and intrapersonal factors were intermingled to influence adolescents' decision-making around food (Neumark-Sztainer *et al*., 1999; Stevenson *et al*., 2007; McHugh *et al*., 2019). The findings support theories of socialisation, social norms, SCT and EST; showing that factors can have an indirect or direct influence on adolescents' food consumption.Participants exhibited a good level of nutritional literacy, understanding and awareness that healthful eating would lead to short-term and long-term health improvements. This supports previous results showing that knowledge alone is insufficient in prompting healthful eating (Stok *et al*., 2012; Vaitkeviciute, Ball and Harris, 2015).

As expected, the majority of participants failed to consume the recommended quantity of fruit and vegetables on a daily basis (Welsh Government, 2016; National Health Service, 2017). The participants gave both positive and negative examples of social media,however Smit *et al*.'s (2020) longitudinal study found that watching YouTube vloggers consuming unhealthful foods and drinks was linked to an increased consumption of these foods amongst young consumers. Conversely, use of Instagram has been correlated with increased orthorexic symptoms (Turner and Lefevre, 2017). Male and female participants in the current study ubiquitously categorised foods as either 'good' or 'bad' and exhibited restrictive regulatory tendencies. There is concern that the innocent desire to eat healthfully could potentially lead to a disordered relationship with food and orthorexia nervosa (Bratman, 2017). Overall, the ambivalence towards eating healthfully could be approached by policy-makers seeking to develop educational programmes, with the aim of engaging adolescents in the importance of healthful dietary practices.

The current study highlighted the importance of the school food environment at the mesosystem level of EST. Relatively simple changes could be made to favour healthful

dietary behaviours. Firstly, participants complained that fruit bowls in the canteen lacked visibility and were aesthetically unattractive. Providing fruit close to the checkouts has proved effective at increasing purchase and consumption of fruit during an intervention study in a secondary school canteen (Ensaff *et al*., 2015). Secondly, many adolescents avoided hot main meals inclusive of vegetables and chose food-to-go. Perhaps creating convenient composite dishes containing vegetables rather than serving vegetables separately would assist in increasing vegetable consumption (Stevens *et al*., 2013). Thirdly, although shortening school lunchtimes effectively reduces bad behaviour, it can lead students to feeling rushed and can be detrimental to healthful eating if students repeatedly purchase the same familiar options (Sharma *et al*., 2017; Baines and Blatchford, 2019).

Contrary to previous studies, asserting the importance of socialisation with peers and SCT from peer-to-peer interactions, parenting was considered a more significant influencing factor than peer pressure. Specifically, early childhood was reputed as a crucial socialisation period for exposure to healthful foods, and is widely considered a robust way to establish healthful taste preferences (Anzman, Rollins and Birch, 2010; Scaglion*i et al*., 2018). Aside from the SCT concepts of taste exposure and parental modelling, several participants in the current study claimed to eat what their parents would approve of, even in their parents' absence. This concurred with the theory of socialisation and prior research has established that having at least one health-orientated food rule at home resulted in adolescents opting for healthier snacks when autonomously deciding what to eat (Wang and Fielding-Singh, 2018). In contrast, other research has found that individuals are more likely to opt for unhealthful foods in their parents' absence (Eck *et al*., 2019). Encouraging parents to offer their adolescents' guidance about what to

purchase at school could prove effective from a SCT perspective, as participants in this age group remained heavily influenced by their parents.

On the other hand, participants were adamant that their peers did not pressurise them to purchase and consume certain products. Individuals were keen to state they independently chose what to eat and their peers held no judgement. However, these findings are inconsistent with the extensive literature stipulating peer pressure substantially influences adolescents' decision-making around food (Bech-Larsen, Jensen and Pedersen, 2010; Pedersen, Grønhøj and Thøgersen, 2015). For example, a recent study found that only 4% of the adolescent participants would purchase a healthful meals in the presence of their peers (McKeown and Nelson, 2018). Thus, the finding that individuality is of greater significance than the effects of peer-to-peer socialisation amongst the sampled adolescents is novel. Thus, policy-makers may choose to focus more so on individualism rather the concept of adolescents all seeking to fit in with perceived social norms.

However, adolescents may use commercially branded food products to conform with others and promote a desirable self-image (Stead *et al*., 2011). Conversely, research has found that taste preferences influence snack selection more than branding (Hemar-Nicolas *et al.*, 2015). This literature implies that food products are used to create self-image, but the branding is not wholly used to in a conforming sense whereby adolescents' will select certain brands regardless of taste preferences. As a consequence, the branding of healthful products and promotions should not be the core focus for policy-makers and marketers. Besides this, the current study identified a newfound relationship between peer pressures influencing individuals' selection of convenient options. Whilst peer pressure is at the mesosystem level and convenience is at the microsystem level in terms of the EST, this highlights the importance of taking a multi-factorial approach as factors at

different levels can interrelate. Choosing the same foods as their peer group allowed adolescents to finish eating at the same time and avoided them being left alone to complete their meal. Previous interview research with school-aged children revealed that swapping packed lunches for school dinners and vice visa was common as it enabled students to sit amongst peer groups in schools segregating those eating different meals (Ludvigsen and Scott, 2009). Notably, choosing the same or similar foods based on convenience related to peer pressure rather than feeling obliged to try to fit in with their peer group was a novel finding. However, social norms theory is evident in the fact that there is a norm of eating lunch quickly, meaning that adolescents' are influenced by their peers despite their reluctance to admit so.

Aside from the novel connection between peers and convenience, convenience constituted a significant intrapersonal factor driving adolescents' decision-making. In particular, long queues deterred individuals because short lunchtime constraints resulted in adolescents' being keen to purchase and consume their break time snack or lunch as quickly as possible to allow for more socialising time. These insights are consistent with previous research involving adolescents of a similar age (McKinley *et al*., 2005).

To counteract the inconvenience of queueing, several mentioned that they brought a packed lunch into the canteen ( Fossgard *et al*., 2019). Although some believed packed lunches could be more healthful as they benefited from parental control, a study in Wales found that parents and carers appeared to implement minimal restraint over packed lunch content (Warren *et al*., 2008). In addition, research shows that packed lunches are significantly less likely to contain fruit and vegetables than school lunches (Taylor *et al*., 2019). Therefore, school policy ought to be positioned towards encouraging school meal take-up rather than packed lunch consumption. Of note, the preference for packed lunches

and convenient food-to-go canteen options is impossible to attribute entirely to convenience because taste preferences play a role. Therefore, it is difficult to clarify or attribute one factor because both taste preferences and socialisation amongst peers are intrinsically rewarding. This highlights the complexity of decision-making around food being influenced by a multitude of factors.

As aforementioned, the level of health consciousness and the perceived lack of peer pressure were unanticipated (Bassett, Chapman and Beagan, 2008). A further novel finding was the unmistakeable price consciousness at a personal level, possibly derived from socialisation with individuals who were conscious of their spending. Adolescents were risk averse and reluctant to spend money on food that was not filling and did not taste preferable. Previous research indicates that adolescents consider healthful foods less filling (McKinley *et al*., 2005; Contento *et al*., 2006). Feeling of guilt for spending their parents' money was prevalent, yet intriguingly the literature largely appears to exclude price consciousness in this research area. One relevant study concerning adolescents' (aged 14- to 17-years-old) food choice found that price and convenience were strongly associated with subsequent motivation for certain food choices (Share and Stewart-Knox, 2012). A study involving students in school canteens found that lowering the price of fruits, vegetables and healthful foods increases sales and subsequent consumption (French *et al.*, 1997). However, increasing the price of unhealthful options such as cookies and brownies alongside decreasing the prices of fresh fruit is not recommended as it is expected that adolescents will simply start to bring in their own packed lunches and snacks. Research with school canteen catering staff has found that the product offering must be attractive for pupils as otherwise the canteen is not financially viable (Moore *et al.*, 2010).

In summary, individuals in this age group are relishing their newfound autonomy and striving to individuate themselves from others. Increasing the availability of foods that are easily accessible, yet conveniently positioned in a food-to-go format whilst meeting adolescents' taste preferences and are cost effectively priced, could help to improve adolescents' dietary choices. The novel finding that peers minimally influenced eating habits may be due to either a lack of awareness or an inherent reluctance to express that they felt peer pressure in a focus group dynamic (Bech-Larsen and Kazbare, 2014). Another limitation is the cross-sectional data collection, which means that causality cannot be inferred from the results. Moreover, findings from predominantly middle-class participants cannot be extrapolated to the wider population of all young adolescents of varying socioeconomic backgrounds. Yet, it is realistic to suggest the findings are representative of other similar individuals because the focus group method provided saturation of results supporting previous research.

A key strength of the current study was the insight gained from adolescents themselves and their understanding of the factors they perceived to influence their dietary habits. A longitudinal study demonstrated that the foods regularly eaten during adolescence were predictive of food intake during young adulthood. This shows the importance of nurturing healthful dietary habits during adolescence (Larson *et al*., 2012). Multifaceted governmental national and local policies and interventions can substantially aid in improving dietary habits. In order to develop interventions appropriate to this age group, further quantitative and qualitative research would be desirable. In particular, making healthful eating normative in the school food environment would have a substantial impact on decision-making concerning food, because adolescents consume a considerable proportion of their daily energy intake whilst at school.

To conclude, it is recommended that a multi-factorial approach is taken to equip young adolescents to make healthier dietary choices. This paper has discussed the implications of the results and provided ideas as to how policy-makers could implement age-appropriate interventions. These interventions should aim to develop and establish healthful habits to aid in the reduction of obesity and subsequent long-term health implications. The broad range of influencing factors mean that it is impossible to ascribe one factor as more influential above all others. Further research studying both extrapersonal and intrapersonal factors driving food choice should include adolescents' insight to explore further the complexity of relationships between factors influencing adolescents' attitudes and consumption of foods.

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