4.16-BG38-5940

AN EXAMINATION OF THE RELATIONSHIP BETWEEN PERCEIVED BODY IMAGE AND PURCHASE BEHAVIOUR OF DIETRY SUPPLEMENTS AMONG ADOLESCENT SAUDI GIRLS

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ABSTRACT

The main objective of this study is to investigate the relationship between perceived body image and purchase behaviour related to dietary supplements among adolescent Saudi girls. Drawing on the theory of planned behaviour (TPB) and Silhouette's nine figure scale, this study seeks to further contribute to our understanding of how perceived body image affects customers' behaviour toward dietary supplements consumption. Cluster analysis is employed to classify the consumers into two groups according to their body image perception. The first cluster is determined as negative body-image and the second cluster is called positive body-image. Independent samples t-test showed that there is a significant difference between the two clusters in terms of their actual purchase behaviour and behaviour intention towards dietary supplements. The findings reveal that negative body-image is significantly associated with both behaviour intention and actual purchase behaviour towards dietary supplements. Unlike the negative body-image group, the findings show that there is a weak relationship between the positive body-image group and behaviour intentions/actual purchase behaviour towards dietary supplements. The study offers theoretical and managerial implications and suggests further consideration to be given to the link between body-image and purchase behaviour and behavioural intention.

Keywords: Perceived body image, Purchase behaviour, Dietary supplements, Adolescent.

INTRODUCTION

Adolescence represents a period of rapid physiological development and psychosocial maturation associated with changes in body perception (Ramberan, Austin and Nichols, 2006). It is considered as a crucial stage of life that brings many biological, neurcognitive, social and behavioural changes (Gottlieb et al., 1998). Adolescence describes the transitional stage from childhood to adulthood. It was defined by the Committee on the Rights of the Child (CRC) as "a life stage characterised by growing opportunities, capacities, aspirations, energy and creativity, but also significant vulnerability" (UN Committee on the Rights of the Child, 2016). More precisely, the World Health Organization (WHO) defines adolescents as those people between 10 and 19 years of age. Adolescence-related issues have become of great interest for many researchers over the past view years, with more focus on issues related to obesity and dietary supplements usage (e.g. Alfawaz et al., 2017; Ebbeling et al., 2017; Karayiannis et al., 2018; Musaiger, 2004; Torbahn et al., 2017). This rapidly-growing field of research gains its importance from the unique nature of such a critical period of formative growth and development that profoundly affects health and well-being across the life course.

Saudi Arabia, like any other developing country, went through many rapid socio-economic changes during past decades. Such changes have greatly affected the lifestyle of the entire population. For instance, the traditional Saudi diet was replaced by the energy-dense Western diet that cause an increased prevalence of some diseases such as obesity, type 2

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diabetes and hypertension (Al-Hazzaa, 2002; Musaiger, 2002). Moreover, fast food consumption and increased caloric intake, in combination with a sedentary lifestyle, is associated with rising rates of obesity in Saudi society (Musaiger, 2004). According to the annual statistics for food consumed in the Gulf Cooperation Council (GCC) in 2014, Saudi Arabia was first in terms of the amount of annually consumed food (Statistica, 2014). In 2012, the amount of consumed food in the country totaled some 25.8 million metric tons, compared to 29.6 million metric tons in 2014 (961.6 kilograms per capita). This is of heightened relevance to the current study as adolescents have become especially vulnerable to intense marketing efforts by manufacturing companies to promote unhealthy snacks, since they represent future adult consumers (Story and French, 2004).

The latest annual report of the Saudi General Authority for Statistics shows that 68% of the total population are below the age of 35, of which 27% are adolescence (SGAS, 2018). Therefore, Saudi adolescents girls is the main group exposed to and affected by high fast food consumption behaviours in the region (Al-Faris et al., 2015). According to Ng et al. (2011), 71% of Saudi females are either overweight or obese. This, of course, explains the high prevalence of dietary supplement use among females in Saudi Arabia. Alfawaz et al. (2017) found that the prevalence of dietary supplement use was high among Saudi female adolescence and it was significantly associated with socio-demographic and lifestyle factors. This prevalence of dietary supplement was supported by a tremendous expansion of the pharmaceutical market in Saudi Arabia. According to the Saudi Pharmaceutical Sales Forecast for the current year (2018), industry products are expected to surpass $7 billion by 2018 as compared to $4 billion in 2012; the supplement market accounts for 4% of total pharmaceutical market sales.

From a social-psychological perspective, the theory of reasoned action (TRA) (Fishbein and Ajzen, 1980) provides a useful conceptual framework for predicting and exploring a wide variety of different dietary behaviours (e.g. Backman et al., 2002; Blanchard et al., 2009; Pawlak and Malinauskas, 2008). This research will, however, adapt the theory of planned behavior (TPB) in order to enhance our understanding of the relationship between perceived body image and purchase behaviour for dietary supplements among adolescent Saudi girls. Although the pharmaceutical industry in Saudi Arabia is expected to surpass $7 billion by 2018, it still lacks in-depth market research, especially for dietary supplement consumption. Previous researchers have not adequately addressed the issue of Saudi adolescents' consumption of dietary supplements from the marketing perspective. Therefore, this study utilises TPB to fill this gap and to (1) predict adolescents' consumption behaviour, and (2) segment adolescent consumers based on their consumption behaviour towards dietary supplements. Furthermore, the study provides a contribution for both marketing knowledge and practice for dietary supplement marketing.

LITERATURE REVIEW

Body image

Body image is a subjective multidimensional and dynamic construct that includes cognitive, behavioural and emotional components (Thompson, 2004). It reflects individuals' perceptions, thoughts and feelings about their body including body size estimation, evaluation of body attractiveness, and emotions associated with body shape and size (Grogan, 2008). From a social-psychological perspective, body image is defined as "the mental picture one has of his or her body at any given moment in time" (Kaiser, 1997, p. 98). Previous research shows that body image incorporates two main aspects: body perception (an individual's assessment of the physical aspects of their body) and body satisfaction (the extent to which an individual is (dis)satisfied with their body size and shape). Individuals' perception of the physical aspects of their body will result in either body image satisfaction or

dissatisfaction. Therefore, body image dissatisfaction is defined as the negative perceptions and feelings an individual has about their body (Peat et al, 2008; Slevec and Tiggemann, 2001).

Body image is not fixed or static, but rather a dynamic aspect of one's self that changes over time and is developed in social comparison (Andrew, Tiggemann and Clark, 2016; Zach et al., 2013). Burns (1979) argues that body image is a significant component of self-concept which influenced by self-esteem and self-evaluation. Positive body image occurs when an individual has positive thoughts and feelings about him/herself, while negative body image is associated with negative thoughts and feelings. Most of body image research focuses on a discrepancy between how one sees one's self (actual/own) and how one would ideally like to be (ideal/own), while acknowledging that such discrepancies are related to body dissatisfaction along with other negative psychological outcomes (Thompson and Gray, 1995). Therefore, self-discrepancies play an important role in the context of body image and appearance-related behaviours (Szymanski and Cash, 1995; Vartanian, 2012). One's positive feelings about appearance are dependent on how close the actual physical self is to the ideal one (Burns, 1979; Solomon, 2017). Thus, the greater the discrepancy between actual and ideal body image, the greater will be the negative feelings about one's physical appearance while, on the other hand, the smaller the discrepancy between the ideal and the actual body image, the more positive one will feel about one's own appearance (Solomon, 2017). Henderson-King, Henderson-King and Hoffman (2001) reported that women who viewed ideal images of models expressed negative feelings about their own bodies and rated their own body image lower than women who viewed neutral images.

Most of the research on body image dissatisfaction has focused on adolescence girls as they represent a pivotal stage in the development of positive or negative body image (Ata et al, 2007; Dohnt and Tiggemann, 2006; Ferraro et al., 2008). For example, Pesa et al (2000) studied the psychosocial differences associated with body weight among female adolescents. The purpose of their research was to determine whether overweight female adolescents differ from normal and underweight female adolescents with respect to a set of psychosocial factors, while controlling for body image. The findings revealed significant differences between groups on the combined set of psychosocial factors. Self-esteem defined the difference in a positive direction while grades defined the difference inversely. However, when controlling for body image, multidimensional group differences were still evident, while self-esteem was no longer a significant contributing variable. In their pilot study, Jansen et al. (2008) tested if body exposure and describing one's body in a neutral way is an effective approach for increasing body satisfaction in obese adolescents. The results of their study indicate that adding body exposure and neutral description of one's body to a weight reduction programme might be an effective way to increase body satisfaction in obese adolescents. Moreover, the exposure was shown to be a powerful strategy to decrease anxiety and to increase body satisfaction. Also, body weight at post-treatment was a significant predictor of positive feelings.

Douthitt (1994) investigated the psychological determinants of adolescent exercise adherence. The findings of Douthitt's research indicated that 'perceived romantic appeal' was predictive of male exercise adherence while 'perceived athletic competency', 'perceived global self-worth', and 'perceived physical appearance' were predictive of female exercise adherence, while 'perceived romantic appeal' and 'personality/sport congruence' were predictive of non-competitive subjects' exercise adherence. Most recently, Musaiger, Bin Zaal and D'Souza (2012), examined body weight perception among adolescents in Dubai. The results show that overweight and obese adolescents were more likely to face pressure from their parents and be teased by friends than non-overweight/-obese adolescents.

Compared to their current body image, overweight and obese adolescents chose a significantly lighter figure as their ideal compared to their actual body image.

The relationship between body image and adolescents' consumption behaviour is well established in existing literature. For example, Yoo and Yurchisin (2017) conducted a research to examine the associations among sociocultural attitude towards appearance, gender, body mass index, and adolescents' appearance-related behaviours and appearance-enhancing product use. The results revealed that sociocultural attitude towards appearance, gender, and body mass index positively influenced adolescents' appearance-related behaviours and product use. Adolescents who highly valued sociocultural attitude towards appearance were likely to engage in behaviours and use products that were designed to increase their attractiveness. In line with Yoo and Yurchisin's research, Dickman (2010) examined the relationship between body image and cosmetics consumption among female adolescents. The findings show that cosmetics consumption behaviours like compensation and concealing were used when subjects felt dissatisfied with their body. It was also found that the time they used for fixing their appearance had a positive relationship with their body image dissatisfaction.

Purchase behaviour

Consumers' purchase behaviour has long been of interest to researchers. It has been much discussed at a conceptual level, starting with the seminal work of Howard and Sheth (1969). Consumer behaviour has been defined as "the behaviour that consumers display in searching for, purchasing, using, evaluating, and disposing of products and services that they expect will satisfy their needs" (Schiffman and Kanuk, 2007, p. 3). According to Batra and Kazmi, (2004), consumer behaviour refers to "the mental and emotional processes and the observable behaviour of consumers during searching for, purchasing and post consumption of a product or service". These definitions imply that consumer behaviour is not merely an economic theory, but rather it is an interdisciplinary science that involves theories from all social and psychological sciences concerned with human behaviour, such as psychology, sociology, ethnography, marketing and economics theories (Levy, 1983). Therefore, behavioural scientists employed several socio-psychosocial theories in order to understand and explain adolescents' consumption behaviour.

The theory of buyer behaviour (TBB) (Howard and Sheth, 1969) provides an integrated model that explains consumer behaviour through various social, psychological and marketing influences on consumer choice into a coherent sequence. The model delineates four main components of information flow: 1) inputs; 2) perceptual constructs; 3) learning constructs, and; 4) outputs. These four components cover all buying behaviour elements including marketing, social stimuli, attention, information search, motives, choice criteria, brand comprehension, leading to an attitude, confidence, intention, satisfaction, purchase, intention, attitude, brand comprehension and attention (Howard and Sheth, 1969).

One of the most widely applied theories in studying adolescents' consumption behaviour is the theory of planned behaviour (TPB) (Ajzen, 1988; 1991). The TPB is the extended version of the theory of reasoned action (TRA) (Fishbein and Ajzen, 1980) which provides a useful conceptual framework for predicting and exploring a wide variety of different dietary behaviours (Backman, 2002; Blanchard et al., 2009; Pawlak and Malinauskas, 2008). The rationale behind the TPB is that one's behaviour is governed by one's intentions to commit a specific act at a specific time and place. In other words, individuals' behavioural intentions are subject to three antecedents: (1) their attitude toward the behaviour; (2) subjective norms, and; (3) perceived behavioural control (Ajzen, 1991; Fishbein and Ajzen, 1980). The first antecedent of behavioural intention (attitude) is determined by the individual's beliefs about the consequences of performing the behaviour

(behavioural beliefs). Thus, an individual's intention to perform a certain behaviour will depend on their positive/negative evaluation of that behaviour. The TPB suggests that attitudes have a direct impact on behavioural intention and are linked with subjective norms and perceived behavioral control. Subjective norms, on the other hand, are the second antecedent of behavioural intention and are a function of beliefs as well. It is argued that an individual will intend to perform a certain behaviour when (s)he perceives that significant others think (s)he should (Fishbein and Ajzen, 1980). Finally, perceived behavioural control (the third antecedent) refers to an individual's perception of the ease or difficulty of performing the particular behaviour (Ajzen, 1987).

The findings from previous studies provided strong support for the use of the TPB in adolescents' consumption behaviour context. For instant, Marcoux and Shope (1997) applied the TPB to predict and explain alcohol use and misuse among young adolescents. The findings suggest that the theory is useful in predicting and explaining alcohol use, frequency of use and misuse among adolescents. The relationship between intention and behaviour explained 26% of the variance in alcohol use, 37% of the variance in frequency of alcohol use and approximately 30% of the variance in alcohol misuse. Blanchard et al. (2009) found that behavioural intentions were a significant predictor of students' consumption of fruit and vegetables. Similarly, Pawlak and Malinauskas (2008) employed the TPB model to examine adolescents' prevalent beliefs regarding eating fruits. Their findings revealed that subjective norms had positively significant impacts on the intention to eat fruit. The TPB has been utilised in various study contexts including online purchases (Hansen , Jensen and Solgaard, 2004); smoking behaviour (Guo et al., 2007); appearance-related behaviour (Yoo and Yurchisin, 2017); and dietary behaviour (Backman, 2002; Blanchard et al., 2009; Pawlak and Malinauskas, 2008). All these studies provided strong support for the use of the TPB in various behavioural contexts.

From a marketing perspective, marketing researchers have become more interested in market segmentation and identifying potential markets to small homogenous groups or segments, especially with the prevalence of dietary supplement use among adolescents (Alfawaz et al., 2017; Alves and Lima, 2009). Adolescents' market segmentation research show that that adolescents have different decision-making styles from adult consumers (Singh and Singh, 2017). Therefore, this study will apply TPB to a segment of adolescent consumers based on their consumption behaviour towards dietary supplements**.**

METHODOLOGY

The study aims to investigate the relationship between perceived body image and purchase behaviour towards dietary supplements among adolescent Saudi girls. The study questionnaire was generated based on the intensive literature review. It has three parts. Part one measures consumer perception of body image (actual *vs* ideal), part two deals with consumption behaviour, and part three measures consumers' intention to buy dietary supplements. For part one, respondents were presented with nine figures of different body images, thinner to fatter (Stunkard, Sorensen and Schulsinger, 1983). Then, they were asked to select the figure that most closely matched their current body-image, as well as the figure that most represented what they would ideally look like, in addition to rating their (dis)satisfaction with their actual body image. Part two consisted of three items that measured respondents' consumption behaviour, while the last part included four items to measure consumers' intentions to buy dietary supplements. For both scales (purchase behaviour scale and behavioural intention scale) a five-point Likert-type scale was used, where 1= strongly disagree and 5=strongly agree.

The target population for the study were Saudi female adolescents aged between 11 to 19 years old. For survey validation, a pilot study was conducted and errors were amended

based on comments and feedback received from participants. The final questionnaire was distributed in five major cities in Saudi Arabia (representing the main five regions) over three months (between May and July 2017). These cities were Riyadh (the capital city), Jeddah, Makkah, Medina, and Hofuf. A cross-sectional survey was conducted amongst 735 adolescent Saudi girls selected from government schools using the stratified random sampling technique. After accounting for non-response and incompleteness, 550 was retained for further analysis.

DATA ANALYSIS AND FINDINGS

The findings show that most of the respondents aged between 14 and 17 years old. 65% of them are not satisfied with their current looks, while 83% chose an ideal/attractive body shape different from their own actual/ current body. Reliability analysis was run to assess the scales' internal consistency, followed by cluster segments validity and independent samples t-test.

Reliability

Reliability analyses were carried out on the purchase behaviour and behavioural intention scales. The results of these analysis indicated that the scales were internally consistent with substantial alpha coefficients. Then a k-mean cluster analysis was employed to segment the customers into two groups according to their perceived body image. Finally, independent samples t-tests were used to examine the impact of body image on customers' purchase behaviour.

Reliability of the purchase behaviour scale

The internal consistency of the purchase behaviour scale was estimated using Cronbach's Alpha statistics. Table 1 shows the reliability of the scale as well as the mean and standard deviation of each item:

Table 1. Reliability, mean, and SD of purchase behaviour scale (N=550)

The Scale	Mean	SD	Cronbach Alpha	Item-to-total Correlation
Purchase Behaviour	3.20	1.30	0.84	
I buy dietary supplements regularly.				0.85
Buying dietary supplements is important to me.				0.79
I will be using dietary supplements in future too.				0.83

From table 1, all three sub-scales exceeded the minimum recommended internal consistency threshold of 0.70 and were therefore deemed reliable (Churchill, 1979). The overall Cronbach's Alpha coefficient is 0.84. Item-to-total correlation coefficients were high for the three sub-scales and ranged from 0.79 to 0.85. Therefore, the scales showed good internal consistency.

Reliability of the behaviour intention scale

The internal consistency of the behavioural intention scale was estimated using Cronbach's alpha statistics. Table 2 shows the reliability of the scale as well as the mean and standard deviation of each item.

Table 2. Reliability, mean, and SD of behavioural intention scale (N=550)

The Scale	Mean	SD	Cronbach Alpha	Item-to-total Correlation
Behavioural Intention	3.65	1.20	0.94	
I definitely do intend to take dietary supplements.				0.90
I definitely do plan to take dietary supplements				0.88
I definitely do want to take dietary supplements.				0.76
I would like to take dietary supplements				0.85

From table 2, the Cronbach's Alpha coefficient for the behavioural intention scale is 0.94, exceeding the minimum recommended internal consistency threshold of 0.70 and is therefore deemed reliable (Churchill, 1979). Item-to-total correlation coefficients ranged from 0.76 to 0.90 and therefore the scale items displayed good internal consistency.

Segmenting respondents according to perceived body image: k-mean cluster analysis

The objective of cluster analysis is to cluster or group observations into subsets based on the similarity of responses (Arabie and Hubert, 1994). According to Sarstedt and Mooi (2014), a k-mean cluster analysis is preferred if (1) there are many observations (> 500) in the dataset and (2) the researcher has a priori knowledge regarding the number of clusters. The current study has observations > 500 and two clusters are expected to come up based on respondents' perception of their body image (satisfaction versus dissatisfaction). Therefore, a k-means clustering procedure was utilised on the perceived body image items to identify the number of consumer segments (Hair et al, 1998). The results show two clusters of respondents. The first cluster was called 'negative body image' and the second cluster was called 'positive body image'. The 'negative body image' cluster constituted 54% of the total segments whereas the 'positive body image' cluster constituted 46%. Table 3 summarizes validation of the cluster groups.

Table 3. Validating the cluster segments

	Cluster1:	Cluster2:
Negative Body-Image	296	0
Positive Body-Image	0	254
*Total	550	

$*X^2=127$, $df=2$, $p<.00$

By looking at table 3, it can be seen that most of the respondents fall in cluster 1 (296 out of 550), while cluster 2 consists of 254 respondents.

Differences between cluster groups: independent samples t-test

Analysis was carried out to test whether there is a significant difference between the two clusters in term of their behaviour toward dietary supplements consumption. To this end,

independent samples t-tests were undertaken with the two clusters ('negative body image' and 'positive body image') as grouping variables. Table 4 presents the t-tests results.

Table 4. Independent samples t-test results

Variable	Cluster Groups	N	Mean	S.D.	t-Value	p-Value
Purchase Behaviour	**Negative Body-Image**	296	**3.45**	1.77	4.06	**0.00**
	Positive Body-Image	254	**2.15**	.85		
Behavioural Intention	**Negative Body-Image**	296	**3.56**	.65	3.96	**0.00**
	Positive Body-Image	254	**2.32**	1.32		

As can be seen on Table 4, the *p* -value of the t-tests indicate that there are significant differences between the two groups with regard to their actual purchase behaviour of dietary supplements ($p = 0.00$, $t = 4.06$), and behavioural intention ($p = 0.00$, $t = 3.96$). On the one hand, the 'positive body image' cluster recorded a small mean score of purchase behaviour (2.15), and intention to buy dietary supplements (2.32). On the other hand, the 'negative body image' cluster scored higher on purchase behaviour (3.45), and behavioural intention (3.56). Overall, it is clear that the 'negative body image' cluster had a higher tendency toward buying dietary supplements compared to the 'positive body image' cluster.

DISCUSSION

This study aimed to examine the relationship between perceived body image and purchase behaviour towards dietary supplements among adolescent Saudi girls. Ther are two motives for this study: (1) previous researchers did not adequately address the issue of Saudi adolescents' consumption of dietary supplements from a marketing perspective, and (2) there is a relatively young population in Saudi Arabia, where 68% of the total population are below the age of 35 and of which 27% are adolescence (SGAS, 2018). The population also associates with high prevalence rates of overweight and obesity (DeNicola et al., 2015). According to the Saudi Pharmaceutical Sales Forecast for the current year (2018), industry products are expected to surpass $7 billion by 2018 as compared to $4 billion 2012, of which the supplement market accounts for 4% of the total pharmaceutical market sales. This boom in the Saudi pharmaceutical industry still lacks in-depth market research, especially for dietary supplement consumption. Therefore, the findings of this research fill this gap.

By adapting the theory of planned behavior (TPB), this research examined the prediction of dietary consumption intention and behaviour in a sample of Saudi female adolescents who were between 11 and 19 years old. The K-means cluster analysis showed two clusters of respondents. The first cluster was called 'negative body image' and the second cluster was called 'positive body-image' (see Table 3). The 'negative body image' cluster constituted 54% of the total segments whereas the 'positive body image' cluster constituted 46%.

The findings of the independent samples t-test indicated that there are significant differences between the two groups with regard to their actual purchase behaviour of dietary supplements, and behavioural intention. It has been argued that the greater the discrepancy

between actual and ideal body image, the greater will be the negative feelings about one's physical appearance (Burn, 1979; Solomon, 2017). In this study, the 'negative body image' group are those respondents who recorded a high discrepancy between their current body image and ideal body image, while the 'positive body image' cluster consists of those adolescents whose actual body image is close to their ideal one.

In line with previous research (e.g. Yoo and Yurchisin, 2017; Dickman, 2010). the findings of the current study confirm the positive relationship between body image dissatisfaction and adolescent purchase behaviour. More precisely, consumption of dietary supplements is significantly related to body image dissatisfaction. Moreover, respondents who reported higher sore on body image dissatisfaction have a greater tendency to buy dietary supplements compared to those who were satisfied with their body image. The findings also suggest that adolescents who are satisfied with their current image show low tendency to buy dietary supplements. Overall, the findings stress the importance of TPB in predicting adolescents' behaviours. Attitude was a significant predictor of adolescents' intentions to buy dietary supplements.

IMPLICATIONS AND FURTHER RESEARCH

The results of the current study create several theoretical and practical implications. To the best of the authors' knowledge, this is the first study that discusses adolescents' dietary supplements from a marketing perspective in Saudi Arabia. Therefore, it provides compelling ground for further research on this area. The findings also draw researchers' attention to the fact that not all adolescents' girls behave similarly in terms of their consumption behaviours. The final clusters provide a new insight into marketing research. Therefore, researchers should handle adolescents' studies with more care, taking into account the various factors that may affect the outcomes. It is obvious that applying TPB to adolescents' marketing research is helpful and can provide a holistic understanding of their consumption behaviour.

From a managerial perspective, the findings suggest that marketers need to segment their market based on customer needs. Understanding customer needs will help managers to tailor products/services to suit their targeted segment group (negative vs positive body image). Marketing campaigns and advertisements should revolve around the notion of 'ideal body image' which has a strong relationship with product consumption behaviours (Dickman, 2010). Moreover, consumption behaviour is highly affected by personal (e.g. demographic, gender, age), psychological (e.g. self-image, personality traits, lifestyle, motivational), and social factors (e.g. cultural, social class, society/family) influences. In order to create an appropriate marketing mix (MM) for their target market, marketers must pay more attention to these factors.

Future research could further test the difference between female and male adolescents in order to determine the proper market segmentation. Another interesting venue of research could be to examine the relationship between self-image congruence and dietary supplement consumption. The findings of previous research emphasises the role of self-concept on specific behaviour (Guttman, 1973), implicit behaviour patterns (Greeno, Sommers and Kernan, 1973), and perception of product (Hamm and Cundiff, 1969). The notion behind this research is that consumers always attempt to preserve, enhance, or extend their self-image (perception of self) by purchasing products that enhance their ideal image (Sirgy, 1982). Therefore, future research can apply self-image theory into adolescent behavior studies. It is suggested that cconsumer behaviour is not merely an economic theory, but rather it is an interdisciplinary science that involves theories from all social and psychological sciences concerned with human behaviour. Thus, future research should benefit from the different social-psychology theories in order to develop new methods for body image and consumption behaviour research.

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