A Review and Assessment of the Existing Health Consciousness Models

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[Abstract] Despite numerous studies on the topic of health awareness there has been no uniform or accepted standard definition and measurement for health consciousness. Although the work done by researchers over the past 30 years resulted in some preliminary models, no significant work has been done in the past 10 years to develop those models further. Instead, the trend shows that the health consciousness model has been extensively used in marketing research to study effects of health consciousness on consumer behavior. An apparent focus on the application of health consciousness model on commercial research seems to have deviated scholarly attention from developing more comprehensive health consciousness models. It is time for researchers to refocus on deepening our understanding of human health consciousness so that new entry points can be created to regenerate pragmatic working strategies to develop health consciousness at an individual level. The authors have presented a review and assessment of historical and current literature related with health consciousness to indicate areas of research that have matured, and that can benefit from further research.

[Keywords] health consciousness, prediction, intervention, consumer behaviour

Introduction

Entering the 21st century, despite an improvement in lifestyle and life quality among college students, health consciousness, and health behavior are reportedly neglected (Tao, Su, & Wang, 2012). The downward trend related to health consciousness seems to be trending over a couple of decades. According to the Fourth National Youth Physique and Health Survey Report, youth morphological development indexes, such as height, body weight, and chest circumference have grown over the past 20 years, but their physical qualities are declining continuously, and the obesity rate has increased twice more than in the 1990s (The Information Times, 2008). If we take into consideration the global youth population, we find that in China, as an example, the youth's proportion of nearsightedness is not optimistic, occurring in nearly 60% of junior high school students, 76% of high school students, and even more than 83% of college students; this means it's difficult to find two college students with good eyesight among 10 college students (Liu, 2009).

Health consciousness and health behavior have always been the main study task of social psychology and health psychology. In the past 30 years, people's lifestyle and life quality have increased significantly with the rapid development of high tech and new science, but their health consciousness and health behavior under its guidance had been reduced and neglected, which has then led to a decline of global human health and physique. In such a serious health crisis, the global body of social psychologists is bound to strengthen research on health consciousness and healthy behavior to discuss how to improve college students' health consciousness efficiently. Research on understanding health consciousness through various models (such as models related to health behavior theories) may reveal practical approaches towards enhancing health

behavior and prevent disease.

Literature Review

It has been over 20 years since the study on health awareness became a focus of psychologists. Slater and Flora (1989) conducted research pertaining to health consciousness that can be regarded as a pioneering work. Although they approached the topic from a marketing research perspective, the focus was mainly on developing the educational intervention. Their research attempted to break down a large population into homogenous groups with distinct patterns of behaviors, so to facilitate targeted outreach of health programs. Their approach was to leverage the existing commercial marketing and advertising models and combine them with health behavior models such as the health belief model, the reasoned action theory, and attempt to create an intervention method against key public health concerns. Although the work completed by Slater and Flora (1989) was a breakthrough concept, it was limited to specific health behaviors such as the use of vitamin C, and habit of using a seatbelt while driving. This could have been an impact of the fact the body of research was funded by the Public Health Services Grant.

In a parallel effort, Gould (1988) found that there were positive correlations between a person's health consciousness and disease prevention and health care behavior. Gould established his Health Consciousness Scale and later, championed that health consciousness simply manifested one's psychological or inner status, and was made up of health alertness, health self-consciousness, health involvement and the self-monitoring of their health (Gould, 1988; 1990). Simply put, a person with an elevated level of health consciousness is likely to demonstrate disease prevention and health care behaviors in a more sophisticated fashion. Later, contending Gould's opinion, Kraft and Goodell (1993) defined health consciousness as "the synthesis of a bevy of personal activities, interests and opinions", which constituted four sub-dimensions, namely: (1) concern for hazardous environment; (2) physical fitness, or physique adaptability; (3) sense of personal responsibility; and (4) nutrition and stress. Thus, a person with health consciousness tends to be quite sensitive about health hazards, is responsible for his or her health, is concerned about his or her physique and is careful about stress and nutrition management (Kraft & Goodell, 1993). The key difference between Gould (1990) and Kraft and Goodell (1993) was, that the former viewed health consciousness as a purely psychological model, while that latter emphasized on health behaviors. Hence, between the work done between Gould (1990) and Kraft and Goodell (1993), two instruments were developed to measure health consciousness from distinct perspectives.

This body of work can be viewed as the first wave of the body of work that leveraged theories from marketing, advertising, and health psychology to first develop a health consciousness scale, and then explore further possibilities to broaden the scale. At this point, the definition of health consciousness was still open for ideas and required further discussion. Nonetheless, review of literature reflects that the introduction of two new measures moved the focus of researchers from further developing the models to the application of applying the new instruments to explore various market trends.

Almost a decade later, researchers in China put forward their interpretations of health consciousness, holding the view that health consciousness refers to one's cognition of and comments on their personal physical, psychological and social adaptabilities in their daily lives (Meng, & Wang, 2000). In a similar vein, Iversen and Kraft (2006) took an in-depth look at Gould's opinions and defined health consciousness as a person's tendency to be concerned with his or her health. At the same time, they stated that health consciousness was not the same as one's anxiety about health or fear of disease or death. Moreover, other

scholars pointed out the interaction between health consciousness and health behaviors. To be more specific, health consciousness controls obvious health behavior, such as sports exercises that give people physical benefits and mental pleasure, and health behaviors, and thus, can deepen and improve a person's health consciousness. In addition, it also proved that once one's health consciousness was established and formed, it would remain strong stability (Li, 2006). These studies provided the groundwork for the second wave of discussions that were focused on improving the content of the health consciousness model. The theoretical discussions about what constructs health consciousness reignited the efforts to understand the phenomenon better and develop new theoretical models.

Further developing Gould's work, Dutta-Bergman (2004b; 2006) and Dutta (2007) turned to focus on the psychological features of health consciousness and attempted to distinguish three health tendency indexes namely (1) health information orientation; (2) health belief; and (3) health activities. Some researchers also attempted to open the possibilities of exploring the phenomenon from a spiritual perspective. Li (2008) emphasized that health consciousness was a kind of spiritual phenomenon with health as its object and comprised of three factors: "knowing" – the degree of understanding about health; "passion" – the feeling and mood about health; "desire" – the degree of persistence and acceptance of health value (Li, 2008).

Despite active discussions among the scholarly circles, there was no accepted standard for the definition and measurements of health consciousness. The culmination of the second wave of development for the health consciousness model came with the development of Hong (2009) Health Consciousness Scale. Hong (2009) attempted to define the concepts of health consciousness, identified five key dimensions of health consciousness from existing literature at that time, and developed a new scale to measure and understand health consciousness at an individual's level. The five key dimensions that he compiled were (1) engagement in health behavior; (2) psychological attention to one's health; (3) health information seeking and usage; (4) personal responsibility; (5) health motivation. Generally, people with health consciousness would actively introduce health behaviors into their daily lives and pay continuous attention to their health status; they seek and use a variety of health information from different resources, take responsibility for their own health and maintain high health motivation all the time (Hong, 2009).

After examining the five dimensions, Hong concluded that instead of focusing on specific behaviors, the re-conceptualized view of health consciousness should focus on an individual's orientation towards overall health and could be measured by evaluating self-health awareness, personal responsibility, and health motivation. Hong (2009) developed and validated an 11-scale instrument to measure the three dimensions.

Now the researchers had a new tool available to them. In 2011, Hong published his first study using his new 11-scale measure to study the role of health consciousness in perceiving or processing the messages conveyed through news about various health threats (Hong, 2011). This research seemed to have started the second wave of consumer behavior-centric research efforts, one more time deviating the focus away from developing the health consciousness models.

As part of our literature review, we identified 175 peer-reviewed articles published between 2010 and 2018 in academic journals, and that included health consciousness as a key term. After reviewing the content of the articles and nature of the results, we were able to divide the articles into two categories. The first, and the predominant category consisted of articles focusing on measure effect of health consciousness

on certain consumer behaviors. While the second category consisted of articles that proposed a new dimension to be researched and included in the health consciousness paradigm.

A new angle of exploring health consciousness appeared in the study presented by Teerachote et al. (2013), who explored the effect of peer leadership on health consciousness. Teerachote et al. (2013) discovered a direct correlation between the quality of peer leadership and the quality of health consciousness. In a separate study originally published in the Russian language, Goleman (2014) viewed health consciousness as a trend of shifting liability from the health services to individuals. He probed at the cultural beliefs, commercialization, and politicization of the health-related policies, and viewed health consciousness through the lens of sociological engineering. Teerachote et al. (2014) and Goleman's (2014) theories offered a new dimension to explore an individual's health consciousness. While the former focused on the social factors associated with an individual's social circle, the latter probed on the sociological engineering of creating and moralizing a phenomenon.

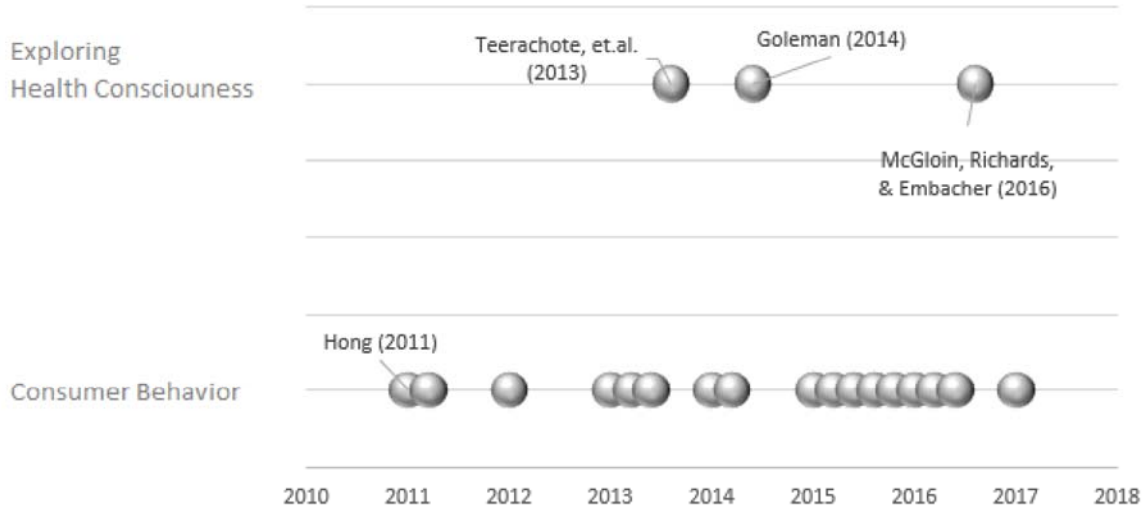

Figure 1. The frequency of research work probing the construct of health consciousness

A third study related to what constitutes health consciousness was published by McGloin, Richards, and Embacher (2016), who eliminated gender as a variable of health consciousness. The authors concluded through their research that gender had no significant relationship with the quality or magnitude of health consciousness. In relation to the other theories probing at the social factors, the normalization of gender as a variable impacting health consciousness could significantly simplify future development in this area of research.

Besides these three articles that focused on what effects health consciousness, the remaining articles explored the effects of health consciousness on certain consumer behavior, such as buying preferences of alcohol or certain health services, etc. A sample of articles falling in these categories is listed in table 1. Table 1 also shows a trend of research work that resulted in the periodic progression of developing health consciousness concepts.

Table 1

A Sample of Research Related to Health Consciousness Done between 2010 and 2017

Citation	Focus	Key Topic
Kaynak, & Eksi (2011)	Consumer Behavior	Health consciousness as a motivator for anti-consumers.
Hong (2011)	Consumer Behavior	Influence of health consciousness on message processing
Mai, & Hoffmann (2012)	Consumer Behavior	Influence of health consciousness in food choice
Melody, & Shang-Hui (2013)	Consumer Behavior	Health consciousness as a motivator for purchase intention of green products
Ellison, Lusk, & Davis (2013)	Consumer Behavior	Health consciousness and calorie intake in restaurants
Chen (2013)	Consumer Behavior	Health consciousness and willingness to use functional foods
Teerachote, et al. (2013)	Exploring HC	Improving health consciousness through peer-leadership
Royne, Deitz. & Gibson (2014)	Consumer Behavior	Influence of health consciousness on perceptions of dietary supplements
Cho, Park, & Lee (2014)	Consumer Behavior	Health consciousness and usage of health apps
Goleman (2014)	Exploring HC	Problematization of health consciousness
Hwang, & Cranage (2015)	Consumer Behavior	Health consciousness and perceptions of fast food menu
Mai, & Hoffmann (2015)	Consumer Behavior	Role of health consciousness in the fight between healthy vs. tasty food
Dong (2015)	Consumer Behavior	Effects of health consciousness in persuading adolescents to use food labels
Akhondan, Johnson-Carroll, & Rabolt (2015)	Consumer Behavior	Health consciousness and organic food
Lee, King, & Reid (2015)	Consumer Behavior	Health consciousness and drug advertising
Widmar, et al. (2016)	Consumer Behavior	Health consciousness and preference for holiday turkey attributes
Sinkevicius (2016)	Consumer Behavior	Health consciousness and intention to purchase alcohol
Buaprommee & Polyorat (2016)	Consumer Behavior	Health consciousness and intention to purchase meat
McGloin, Richards, & Embacher (2016)	Exploring HC	Effects of the gender gap on health consciousness
Singhal (2017)	Consumer Behavior	Effects of health consciousness on consumer behavior towards organic food

Discussion

If health consciousness influences human behavior as effectively as shown by the magnitude of consumer behavior research, it is critical for social scientists to continue working on understanding the factors that develop health consciousness. The extent of research work focused on consumer behavior, and the far and few probes in between on the nature of health consciousness reflect a commercial-centric trend among researchers. Treating the health consciousness as an independent variable in research seems to be equivalent to weighing the intention to purchase of more than the well-being of an individual. The globally deteriorating health and habit trends among youth, especially college students, seek the attention of social of the social scientist to refocus on the composition of health consciousness. The subject needs to be brought

into mainstream discussions where development work can be done by exploring the phenomenon through the lens of various existing psychological, social, and health behavioral models. Such an effort is critical to discover the new entry points and pragmatic working strategies and to popularize the health education of college students as well as to improve and enhance their physical quality.

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