Feedback Effects and Evaluation Process of Health-Related Perceived Risk and Behaviour

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Many theories have identified perceived risk as a predictor of behavior. However, contradicting findings from empirical studies have caused researchers to question the role of perceived risk. This study aims to explore the internal mechanism behind the inconsistencies and to provide further insights. Based on an empirical study concerning the use of condoms, we propose a two-stage dynamic model, involving a process of “evaluation” of an initial action and a construct of “feedback effect” of perceived risk. Our model will aid researchers and practitioners in social medicine and marketing in achieving a better understanding of health prevention behaviors.

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The other extreme is the low income, often older, consumer. These consumers buy local brands and have difficulty obtaining credit. They do not belong to the Consumer Society. They, of necessity, remain part of the Saver Society. But between these two extremes we find others who remain a part of the Saver Society by choice. They continue to buy cheap, reuse what they can, display thrift and modesty in consumption, share with relatives, and avoid credit.

**Conclusion and Discussion: The Broader Notion of the Saver Society.**

Should we regard the group of voluntary members of the Saver Society in Bulgaria as a fossil of another time that will disappear with the next generation of children raised in a growing Consumer Society? It is possible, but we don’t think that this will be the case. There are lingering lessons of childhood and culture just as there are lingering lessons of communism. Besides the voluntary members of Saver Societies there are many poor within rich countries who are also more likely to be Savers. Hill and Stamey’s (1990) work with American homeless, Stack’s (1974) work with residents of an impoverished housing development, and Chin’s (2001) work with poor black children all find instances of Saver Societies alongside Consumer Societies. We believe that our knowledge of both will be advanced by examining the coexistence of such vastly different consumption orientations.

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**Feedback Effects and Evaluation Process of Health-related Perceived Risk and Health Behavior: A Conceptual Model and an Empirical Test**

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**Abstract**

Many theories have identified perceived risk as a predictor of behavior. However, contradicting findings from empirical studies have caused researchers to question the role of perceived risk.

This study aims to explore the internal mechanism behind the inconsistencies and to provide further insights. Based on an empirical study concerning the use of condoms, we propose a two-stage dynamic model, involving a process of “evaluation” of an initial action and a construct of “feedback effect” of perceived risk.

Our model will aid researchers and practitioners in social medicine and marketing in achieving a better understanding of health prevention behaviors.

**Introduction**

Perceived risk has been an interesting research topic for more than four decades. Bauer (1960) first coined the concept of perceived risk in the marketing area. Since then, numerous studies have been conducted to define, measure, and model perceived risk in the context of consumer behavior. Perceived risk has also been applied in various areas, including the food industry (Eiser, Miles, and Frewer 2002), e-commerce (Liebermann and Stashevsky 2002), banking (Gorton 2004), and health services (Kreuter and Strecher 1995). Many studies have illustrated the significant relationship between consumers’ health behaviors and their perceived risk, and, indeed, the importance of perceived risk has been widely recognized.

**Perceived Risk and Health Preventive Behavior**

Perceived risk, as an important element of various health behavior models, has a strong relationship with health behavior or the intention of health behavior (Lindan et al. 1991). Many recent studies, however, state that perceived risk does not have a significant relationship with behavior and has little predictive power in health behavior models (Brewer et al. 2007; Leventhal, Kelly, and Leventhal 1999), such as the Health Belief Model, and the Theory of Reasoned Action. These contradicting findings have led several researchers to conduct meta-analyses in order to bring a more holistic picture of the importance of perceived risk and the relationship between health-related perceived risk and behavior (Brewer et al. 2007; Floyd 2000; e.g., Harrison, Mullen, and Green 1992). Those studies, however, failed to provide a clear explanation of inconsistent findings. Thus, the main purpose of this study is to provide a better understanding of the relationship between perceived risk and consumers’ health-related behavior.

Brewer et al. (2004) attempt to explain the inconsistencies by proposing a reappraisal hypothesis, which provides a semi-dynamic structure explaining the inconsistencies. Their study clearly illustrates a relation between preventive health behavior and perceived risk using a longitudinal method. Nevertheless, Brewer et al.’s study did not observe the inconsistencies directly and failed to provide necessary background information of participants by assuming that all other factors are constant. More importantly, a vital “evaluation process” was not illustrated in their study, which explains the decision process during the formation of perceived risk and consistent health behavior.

In our study, health-related perceived risk and behavior are not considered in a static model, which naturally neglects the fact that either perceived risk or behavior can be changed or interrelated in a dynamic way with the progression of time. Instead, we propose a two-stage dynamic model to provide a possible explanation of the inconsistencies found in past studies. In addition, a new construct of “feedback effect” between perceived risk and behavior has been defined and explained.

**Proposed Model**

The model shown in Figure 1 illustrates the formation of consistent preventive behavior and the mechanism of feedback effect. We hypothesize that the contradicting findings from previous empirical studies are partially due to the fact that participants are at various stages
of perceived health risk. At the beginning stage, people obtain information from various sources which can improve the knowledge of a particular hazard or disease. They tend to have a high level of perceived risk after obtaining such information or having enough knowledge on a particular hazard. Based on previous behavioral models, a high level of perceived risk will lead people to engage in preventive behavior, which is then demonstrated in the second stage of the model. After an initial action, an evaluation process which determines the perceived effectiveness of the preventive behavior is carried out. When a person finds the preventive behavior cannot provide enough confidence, he/she stays at a high level of perceived risk. If a person believes that the preventive behavior can offer an effective protection against the particular risk, his/her perceived risk will be reduced and he/she will move to the 2nd stage which is stable.

In the 2nd stage, people have a low level of perceived risk and exhibit a consistent preventive behavior. Preventive behavior provides “feedbacks”, which establish people’s confidence and further reduce the perceived risk. On the other hand, a low level of perceived risk negatively related with a preventive behavior increases people’s willingness to continue engaging in further preventive behaviors.

Study Design
In order to test the proposed model, we conducted a survey research based on a high-risk population in Manchester, UK. Participants were Female Commercial Sex Workers (FCSWs) who had a high risk of catching Sexually Transmitted Infections (STIs). We gained access to our participants by collaborating with a local organization, MASH (Manchester Action on Street Health) which provides sexual health services to FCSWs. Structured interviews were conducted to measure the perceived risks involved. The preventive behavior used in this study is a consistent use of condoms.

Data Collection
FCSWs’ responses to the statement “I am at risk of being infected with HIV/AIDS” were recorded, and the reasons for their perceived risk status were also asked, using a four-point Likert-type scale. Higher scores represent a perception of greater risks. After participants evaluated their risks, they were asked to briefly explain the reasons. In addition, participants’ knowledge of STIs, the years of working as FCSWs.