

The Health Belief Model and Motivational Interviewing for Smoking Cessation

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### **Origins of the Health Belief Model**

The Health Belief Model (HBM) is a conceptual, psychological model that was developed in the 1950s by Irwin M. Rosenstock, Godfrey M. Hochbaum, S. Stephen Kegeles, and Howard Leventhal. These social psychologists of the United States Public Health Service developed this model to explain why such few people were participating in disease prevention and detection programs (Champion & Skinner, 2008). In the 1950s, the majority of the population failed to participate in tuberculosis screening programs. Although the screening programs were of no cost to individuals, and X-ray units were placed at convenient locations, large numbers of eligible people still failed to participate (Champion & Skinner, 2008). The HBM was “developed as a systematic method to explain and predict preventive health behaviors,” (Ma et al., 2013). Today, it is readily applied to nursing issues related to responses to disease diagnoses, especially regimen compliance (Janz & Becker, 1984). The model seeks to explain health related behaviors in the context of a person’s perception of the seriousness of a health problem, as well as the value associated with actions to reduce that threat. The Health Belief Model describes three major classes of factors related to healthcare-seeking actions: sufficient concern for the health issue, perceived threat, and the value of the action aimed at reducing the perceived threat.

### **Major Factors Related to Health-Care Seeking Behaviors**

The first major area outlined by this conceptual model is the sufficient concern for a particular health issue; a health issue must be relevant to the person in order for him/her to perform any health-related actions (Rosenstock, Strecher, & Becker, 1988). The second major area is perceived threat, which is defined in the model as “the belief that one is susceptible to a

serious health problem or the sequelae of that illness,” (Rosenstock et al., 1988, p. 177). The third major class outlined by the HBM is “the belief that following a health recommendation would be beneficial in reducing a perceived threat, at a subjectively acceptable cost,” (Rosenstock et al., 1988, p. 177). In summation, a person must believe that the health-related action is valuable and that it also has tolerable or minimal consequences—one’s outcome expectations—in order for them to engage in that action. It is a value-expectancy theory (Rosenstock et al., 1988).

### **Six Dimensions of the Health Belief Model**

Specific dimensions originally outlined in the HBM are perceived susceptibility, perceived severity, perceived benefits, and perceived barriers. The model later expanded to include: cues to action and perceived self-efficacy. Perceived susceptibility refers to an individual’s perception of the risk of contracting a disease (Janz & Becker, 1984). The consequences of an individual’s perception of susceptibility can have very detrimental effects. A study conducted by University of Tennessee College of Social Work found that the disinhibition produced by alcohol consumption (a barrier to safe sexual practices) is related to risky behavior among adolescent males. While under the influence of alcohol, they perceive their risk of contracting sexually-transmitted diseases to be low and this may be a factor related to the increasing number of adolescents with HIV infections (Neff & Crawford, 1998).

Perceived severity refers to the individual’s perception of a disease’s seriousness. It includes medical consequences (e.g., pain, death), as well as social consequences such as the effect the disease will have on one’s social life, family life, and professional life (Janz & Becker, 1984). If an individual does not perceive a health condition to be serious, he or she may engage

in risky behavior that may lead to contracting the disease; or if already established, one may leave the condition untreated. Perceived susceptibility and severity are both related to the major category: perceived threat. Collectively, these two constructs provide the incentive for individuals to seek effective health-related actions.

An individual's perception of a health threat is influenced by demographic factors such as age, gender, or race, and by another HBM construct: cues to action (Janz & Becker, 1984). Cues to action are triggers that can initiate health related actions. This construct includes mass media coverage, peer advice, illness of a friend or relative, and reminders from physicians or dentists. Once a perceived threat is established, health-related actions may then be initiated. However, the particular course of action to be taken depends on two other dimensions—perceived benefits and perceived barriers.

Perceived benefits are the individual's expectations that following a health recommendation will be effective in reducing the perceived threat. Although a particular course of action may be effective, it must also be perceived to be feasible and achievable; that is, the perceived barriers must not be overwhelming to the individual. Perceived barriers are defined as "the potential negative aspects of a particular health action," (Janz & Becker, 1984, p. 2). Perceived barriers vary widely and include but are not limited to financial costs, phobias, physical barriers to executing the action, adverse effects, and accessibility factors (Rosenstock et al., 1988). Individuals arrive at decisions concerning health actions by simultaneously weighing the benefits and the barriers. According to this model, it should not be assumed that one will follow a particular course of action regardless of how effective it may be, due to the subjectivity involved in weighing its benefits and costs.

The early model of the HBM was later revised by Becker in 1974 in order to be applicable to chronic disease diagnoses and the responses to symptoms of these diseases (Champion & Skinner, 2008). This expansion of the HBM was accompanied by the addition of a construct borrowed from Bandura's Social Cognitive Theory called perceived self-efficacy. Self-efficacy is defined by Albert Bandura as one's belief that he or she can successfully execute the behavior needed to produce the expected outcome (Rosenstock et al., 1988). It refers to one's own subjective feelings about their competence. The early model of the HBM was intended to explain health-related behaviors concerning simpler actions, such as accepting immunizations (Rosenstock et al., 1988). However, when the HBM is applied to chronic diseases, a more complex situation arises. Chronic diseases require individuals to perform more complicated and dynamic behaviors. These behaviors usually require difficult lifestyle modifications that would affect the client daily. Such health related actions require the aforementioned constructs—perceived susceptibility, severity, benefits, barriers, and cues to action—as well as a feeling of competence (Rosenstock et al., 1988). In the HBM, self-efficacy refers to the perceived competence of oneself; it is subjective and can be enhanced (Hoffman, 2013).

### **Motivational Interviewing**

As nurses, we serve as advocates for our patient's healthcare and the best health outcomes. It can often be challenging to resist telling clients what to do, but we must respect human autonomy. Rather than be defeated, nurse and patient can come to a middle ground. Negotiating behavior change is one strategy to the harm reduction approach for health. Before negotiation can occur, a therapeutic relationship must be developed; and this is where communication becomes the key to unlocking a healthier future for the patient. Utilizing a

guiding style, acknowledgment of patient's specific needs, quality listening, assertiveness, and evoking one's motivations are some useful strategies. This communication style describes motivational interviewing (MI), a collaborative, gentle form of counseling that originated in 1983 for problem drinking (Rollnick, Miller, & Butler, 2008).

Smoking cessation can be achievable through a combination of both pharmacological and behavioral interventions (Lai, Cahill, Qin, & Tang, 2010). Motivational interviewing is a lengthy process of behavioral counseling, in which the health care professional assists the client in resolving ambivalence. Allowing an individual to come to certain realizations on his/her own can bring about awareness for the need to change; this can lead to self-motivation, which is the most effective way to successfully change a health behavior (Rollnick, Miller, & Butler, 2008). It is more effective long-term than trying to convince the client to change for reasons that are not self-elicited. Utilizing a more traditional directing style of communication can often lead to the client's resistance or the denial that there is reason to change (Lai, Cahill, Qin, & Tang, 2010). The four guiding principles in MI as follows (RULE): resist the righting reflex, understand the patient's own motivations, listen effectively during interactions, and empower the patient to feel capable of change (Rollnick, Miller, & Butler, 2008). The main goals are to elicit change talk rather than defensiveness or denial, to help the client resolve ambivalence, and to elicit the patient's own motivations for changing a health behavior. Time is a significant factor in MI; it may take months to years to make a significant breakthrough with a client. When applied to smoking cessation, the first several months of MI may be focused on discussion centered on trying to evoke even the simplest personal incentive to change.

### **How Can The HBM Work With MI?**

Rollnick, Miller, and Butler describe change talk in six categories—desire, ability, reasons, need, commitment, and taking steps (2008). These types of change talk are related to the HBM's dimensions: perceived severity, benefits, and barriers. A client is not going to desire change unless there are factors that he/she perceives to be dangerous. Health behavior change will also not occur unless it is feasible and reasonable to the client. There must be “something in it” for the client. Self-efficacy is also related to change talk: a client will not commit or take steps to make a change unless he/she is empowered and feels capable. Motivational interviewing stresses empowerment through emphasizing a client's positive qualities.

Involving cues to action is where the HBM differs significantly from MI. Cues to action are external motivators rather than internal. This has proved not to be the most effective when dealing with addictions; for example, anti-tobacco media messages have not successfully deterred members of the population from smoking, especially among the mentally ill. Policies such as tax hikes on tobacco products have helped to reduce the total number of users in the United States. However, these policies have not been as effective on clients with mental illness, as evidenced by their lower rate of decline than the general population (Cook et al., 2014). Such policies influence behavior through external motivations rather than evoking the motivations of oneself, as MI seeks to achieve. They achieve short-term change rather than long-term behavior change.

Although the Health Belief Model was not designed to tackle addictions, the model has some factors that can be applicable to smoking cessation. The HBM's goal of compliance disaccords with motivational interviewing. MI uses a guiding style of communication rather than

a directing style; the latter is associated with compliance. However, incorporating modalities from both models could produce a successful smoking cessation program for the residents at Community Access if enough time is devoted. Both models have effective functions, but none can even be applied unless a trusting therapeutic relationship is formed with a patient.

Developing this sort of relationship may take a great deal of time when dealing with patients who are mentally ill, due to both the illness itself and to social experiences related to stigmatization.

Organizing structured groups in which several clients discuss their desire to stop smoking can positively influence other clients. Seeing that other clients are making a change can serve as motivation for people to open up in discussion, making MI more effective. An integral part of MI is informing, albeit to the extent that the patient feels comfortable accepting information.

Therefore, providing clients with information about smoking cessation programs in the area can also be helpful; especially for the client who has expressed desire but has not taken steps. The official website for the city of New York provides a list of smoking cessation programs all over the city, some even having bilingual groups. Smokers can directly access

[www.nyc.gov/NYCquits](http://www.nyc.gov/NYCquits) for more resources and helpful tools.



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