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THEORY AT A GLANCE: HEALTH BELIEF MODELS IN PREDICTING HEALTH BEHAVIORS

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ABSTRACT

The Health Belief Model is a dynamic framework for guiding health promotion and illness prevention initiatives. The Health Belief Model was created by social scientists at the US Public Health Service in the early 1950s to better understand why people don't use disease prevention techniques or screening tools for early illness diagnosis. According to the Health Belief Model, a person's belief in a personal risk of illness or disease, as well as their belief in the field of health promotion activity or action, can predict whether or not they would engage in the behaviour. It's used to describe and forecast how people's health behaviours evolve over time. It's probably one of the best models for analysing health-related behaviours. Individual attitudes about health issues, that determine individual health-related actions, are central to the Health Belief Model. The model defines perceived susceptibility to illness or disease (perceived susceptibility), belief in the severity of the consequences (perceived severity), potential positive effects of action (perceived benefits), perceived barriers to action (perceived barriers), exposure to factors which prompt action (cues to action), and confidence in one's ability to succeed as the key factors that influence health behaviours (self-efficacy).

Introduction: -

Health is a multifaceted notion that must be considered in its entirety. An important part of nursing is determining the client's health status. Nurses are in a unique position to help clients achieve and maintain optimal levels of health because they understand the problems of today's health-care system and value the potential to promote health and avoid sickness through wellness activities. Health is defined by the World Health Organization as "a condition of complete physical, mental, and social well-being, not only the absence of sickness or disability." Many additional factors of health must be taken into account in connection to an individual's values, personality, and way of life. Each person has their own unique definition of health, which varies by age, gender, and culture. As a result, the nurse must be able to distinguish between various health concepts in order to assist clients in identifying and achieving their health objectives.[1,2,3]

Those personal attributes such as beliefs, expectations, motives, values, perceptions, and other cognitive elements; personality characteristics, including affective and emotional states and traits; and overt behaviour patterns, actions, and habits that relate to health maintenance, restoration, and improvement," Gochman defined health behaviour as. Surprisingly, this concept places a premium on individual behaviours and health.[2,3]

In contrast, a public health viewpoint is concerned with individuals as members of a wider community. Individual activities drive many of the social factors that affect everyone's health, therefore these perspectives are intertwined. S. Kasl and S. Cobb presented descriptions of certain categories of overt health behaviour, which are congruent with Gochman's definition. Kasl and Cobb define four types of health behaviour in two landmark 1966 articles:

- **Health-directed behavior-** Any observable action that is related to illness prevention, health maintenance, health improvement, or health restoration is referred to as health-directed behaviour. This type of activity might be voluntary or involuntary, and it can be done to achieve a specific health goal. For example, an adult who exercises to lower his or her risk of heart disease is doing it with the intent of repairing, maintaining, or improving his or her health. This is referred to as "health-directed behaviour.[2,3]

- **Health related behavior-** Health-related behaviour refers to behaviours conducted by a person that may have health consequences but are not done with a specific health goal in mind. A child running 800 meters in physical education class, for example, is engaging in a health-related behaviour, but only because the teacher mandates it in order to receive a passing mark. Sometimes these two types

of health behaviour coexist—a kid secured into a safety seat is engaging in health-related behaviour, but this is a health-directed behaviour for the parent.

- **Preventive health behavior-** Any action carried out by people who believe they are well with the goal of preventing or detecting sickness in an asymptomatic condition. Self-protective conduct, such as wearing a helmet when riding a bicycle, utilizing seat belts, or using a condom during sexual activity, are examples of this. Cautionary behaviour is another name for self-protective behaviour. When a person wishes to avoid becoming ill or having a problem, they take action, such as a mother taking her child for immunization. Quitting smoking is an obvious example of reducing the risk of early morbidity and mortality.

- **Illness Behavior-** When a person detects indications or symptoms that indicate an impending sickness, such as when a mother gives her child cough medicine after hearing her wheeze. Some people seeking help for physical or mental symptoms resort to the medical system; others turn to self-help measures; and still others choose to ignore the symptoms. In everyday life, disease behaviour might be a combination of choices. A person suffering from recurrent symptoms of joint pain, for example, may seek help through complementary or alternative medicine. However, abrupt, severe, and incapacitating symptoms may prompt a visit to the emergency room at a hospital. In any case, significant subjective perceptions of the meaning of symptoms frequently mediate sickness behaviour. Many social and psychological elements, like with any sort of human behaviour, play a role in determining the type of disease behaviour displayed by an individual.

- **Sick-Role Behavior-** When a person detects indications or symptoms that indicate an impending sickness, such as when a mother gives her child cough medicine after hearing her wheeze. Some people seeking help for physical or mental symptoms resort to the medical system; others turn to self-help measures; and still others choose to ignore the symptoms. In everyday life, disease behaviour might be a combination of choices. A person suffering from recurrent symptoms of joint pain, for example, may seek help through complementary or alternative medicine. However, abrupt, severe, and incapacitating symptoms may prompt a visit to the emergency room at a hospital. In any case, significant subjective perceptions of the meaning of symptoms frequently mediate sickness behaviour.[2,3]

Different models of health illness: -

A model is a theoretical technique of comprehending a notion; it is used to comprehend the relationships between these concepts and customers' attitudes about health habits. As a result, the nurses have devised the following health models, which enable them to comprehend and forecast client health behaviour, such as how they use health services and adhere

to prescribed therapy. One of these is the health belief model.[4,5]

Health Belief Model (HBM)

The Health Belief Model (HBM), which is one of the most extensively used models of health behaviour (Glanz & Bishop, 2010), proposes that six constructs predict health behaviour: risk susceptibility, risk severity, benefits to action, barriers to action, self-efficacy, and cues to action (Becker, 1974; Champion & Skinner, 2008; Rosenstock, 1974). The HBM was first developed to mimic the adoption of preventive health practices in the United States, but it has since been effectively adapted to fit a variety of cultural and thematic situations (e.g., Griffin, 2012; Scarinci et al., 2012).

The Health Belief Model (HBM) was created by social scientists at the US Public Health Service in the early 1950s to better understand why people don't use disease prevention techniques or screening tools for early illness diagnosis. Patients' responses to symptoms and compliance with medical treatments were later uses of HBM. According to the HBM, a person's belief in a personal risk of illness or disease, as well as their belief in the effectiveness of the recommended health activity or action, can predict whether or not they would engage in the practice.

The Health Belief Paradigm (HBM) is a psychological model that focuses on individual attitudes and beliefs in order to explain and predict health behaviours. The HBM was created in the 1950s by social psychologists working for the US Public Health Service to explain why people don't participate in health screening and preventative programmes (e.g., a free and conveniently located tuberculosis screening project). Since then, the HBM has been modified to investigate a wide range of long- and short-term health behaviours, including sexual risk behaviours and HIV/AIDS transmission.[4,5,6]

The HBM is considered to be the forefather of all behaviour change models. Self-efficacy, or an individual's perceived ability to impact change, was added in the 1980s. Individuals are more likely to take action to protect or promote their health if they believe that:

- they are vulnerable to a condition or problem
- the consequences of the condition are severe
- the recommended actions to address the problem are beneficial; and the benefits of taking action outweigh the costs or barriers

The Health Belief Model is a paradigm for inspiring people to pursue positive health actions that centers on the desire to avoid a negative health outcome. HIV, for example, is a harmful health consequence, and the desire to avoid it might be used to persuade sexually active persons to engage in safe sex.

Similarly, the danger of a heart attack might be utilized to encourage someone

with high blood pressure to exercise more frequently.

It's worth noting that avoiding a bad health outcome is an important part of the HBM. A person might, for example, increase their physical activity in order to look and feel better. That example does not match the model because the person is not motivated by a negative health result, despite the fact that the health action of obtaining more exercise is identical to that of a person who wishes to avoid a heart attack.[5]

Originators

- **Godfrey Hochbaum** was born on November 19, 1916, in New York City. United States Public Health Service (USPHS) research psychologist (1952-1967). Assistant Chief and Chief of the US Public Health Service's Behavioral Science Section (1957-1967). Professor of Behavioral Science and Health Education at the University of North Carolina in Chapel Hill's School of Public Health

- **Stephen Kegels** (born January 2, 1945) is an American actor. Behavioral scientists are people who study human behaviour. US Public Health Service, Division of Dental Public Health and Resources, Chief of Social Psychological Studies (1957-1960). Professor in the University of Connecticut's Department of Psychology (1975-1986), and Professor at the University of Michigan (1986-)

- **Irwin Rosenstock** was born on January 15, 1925, in New York City. US Public Health Service Psychologist (1951-1961). Associate Professor of Health Behavior at the University of Michigan's School of Public Health (1961-1965). University of Michigan Professor of Health Behavior and Chairman of the Department of Health Behavior and Education (1975).[5,6]

History and Orientation

The Health Belief Paradigm (HBM) is a psychological model for explaining and predicting health behaviours. This is accomplished through focusing on individual attitudes and beliefs. Services for Public Health. The HBM was created by social psychologists Godfrey Hochbaum, Irwin Rosenstock, and Stephen Kegels in the United States Public Health Services in the 1950s. In reaction to the failure of a free tuberculosis (TB) health screening programme, the concept was created. Since then, the HBM has been modified to investigate a wide range of long- and short-term health behaviours, including sexual risk behaviours and HIV/AIDS transmission.[7]

Adults received free TB screening x-rays from mobile units conveniently situated in various neighborhoods as part of the TB screening initiative. When only a few adults showed up for the free services, programme organizers began looking into why there were so few adults. Hochbaum, on the other hand, began to investigate what drove the few who did come forward. He rapidly discovered that their

motivation was largely based on their perceptions of disease risk and action benefits.[7]

Perceived Susceptibility, Perceived Severity, Perceived Benefits, and Perceived Barriers were the model's first four major principles. Cues for Action was introduced subsequently to "stimulate behaviour." Finally, in 1988, the idea of Self-Efficacy was introduced to address the issues of habitual unhealthy habits like smoking and overeating.

The HBM was created with the intention of explaining and predicting preventative health behaviour. It looked at the link between health behaviours, practices, and health-care utilization. The HBM has been updated in recent years to add general health motivation in order to separate disease and sick-role behaviour from health behaviour. It all started in 1952. It is often recognized as the start of systematic, theory-based health behaviour research.[7,8,9]

Components Of Health Belief Model-

The HBM is based on psychological and behavioural theory, with the two components of health-related behaviour being 1) the desire to avoid illness or, conversely, the belief that a specific health action will prevent or cure illness; and 2) the belief that a specific health action will prevent or cure illness. In the end, an individual's decision is often influenced by their beliefs of the rewards and drawbacks associated with health activity. The HBM is made up of six different components. The first four constructs were created as the HBM's founding principles. The last two were introduced as the HBM's study progressed.

1. **Perceived susceptibility** - This is a person's subjective assessment of the likelihood of contracting a sickness or disease. A person's perceptions of personal vulnerability to a sickness or disease might vary greatly.

2. **Perceived severity** - This refers to a person's feelings on the seriousness of contracting an illness or disease (or leaving the illness or disease untreated). There is wide variation in a person's feelings of severity, and often a person considers the medical consequences (e.g., death, disability) and social consequences (e.g., family life, social relationships) when evaluating the severity.

3. **Perceived benefits** - This is a person's assessment of the efficacy of various interventions available to lower the risk of illness or disease (or to cure illness or disease). The course of action a person chooses in preventing (or curing) illness or disease is based on the consideration and evaluation of both perceived vulnerability and perceived benefit, with the person accepting the advised health action if it is thought to be beneficial.

4. **Perceived barriers** - This is a person's reaction to the challenges of carrying out a prescribed health measure. A person's

perceptions of barriers, or impediments, vary widely, leading to a cost/benefit analysis. The effectiveness of the acts is weighed against the perceptions that they will be costly, harmful (e.g., adverse effects), unpleasant (e.g., painful), time-consuming, or inconvenient.

5. **Cue to action** - This is the stimulation that will cause the decision-making process to accept a suggested health action. Internal (chest aches, wheezing, etc.) or exterior clues can be used (e.g., advice from others, illness of family member, newspaper article, etc.).

6. **Self-efficacy** - This is a measure of a person's belief in his or her capacity to complete a task successfully. This construct was only recently incorporated to the model, in the mid-1980s. Many behavioural theories include self-efficacy as a concept since it directly relates to whether or not a person executes the desired activity.[8,9,10]

The following are the important variables from the Rosenstock, Strecher, and Becker, 1994 HBM:

The Health Belief Model of Rosenstoch (1974) and Becker and Maiman (1975) looks at the relationship between a person's beliefs and their actions. A person's thoughts, convictions, and attitudes concerning health and illness are referred to as health beliefs. As a result, this model can be used to understand and forecast how customers would behave in terms of their health and how they will adhere to health-care therapies.

Perceived Threat: Consists of two parts: perceived susceptibility and perceived severity of a health condition.

Perceived seriousness- The idea of perceived seriousness refers to a person's perception of a disease's seriousness or severity. While a person's sense of seriousness is frequently based on medical information or expertise, it can also be influenced by assumptions about the difficulties that an illness would cause or the effects it will have on his or her life in general. For example, most of us consider AIDS to be a significant disease, and we believe that contracting it will land you in the hospital and make life difficult.

For example- Perceived seriousness of the condition "AIDS is serious. My life would be hard if I got it".

Perceived Susceptibility- One of the most effective impressions in encouraging people to adopt healthy behaviours is personal risk and susceptibility. The greater the perceived risk, the more likely people are to engage in risk-reducing actions. This is why guys who have sex with males should be vaccinated against hepatitis B and use condoms to reduce their risk of contracting HIV. People are motivated to get flu shots, wear sunscreen to prevent skin cancer, and clean their teeth to prevent gum disease and tooth loss based on their perceived risk.[9,10,11]

For instance, Perceived HIV Infection Susceptibility

- People like me do not contract HIV.
- I am in good health and can resist an HIV infection.
- I am too young to be infected with HIV.
- I don't think I'm at risk of contracting HIV.
- People my age are too young to contract HIV.
- HIV infections do not affect people my age.

Perceived benefits- The perceived advantages construct refers to a person's assessment of the worth or utility of new behaviours in lowering the chance of developing a disease. People are more willing to change their habits if they believe it will lessen their risk of developing an illness. Would individuals try to eat five servings of fruits and vegetables every day if they didn't believe it was healthy? The perceived benefits of secondary prevention, like as screening, play a big role in its acceptance.

For example, consider the perceived benefits of taking preventive action: "If I start using condoms, I'll be able to avoid contracting HIV."

Perceived barriers- because change is not something that people readily accept. This is an individual's assessment of the barriers that prevent him or her from adopting a new behaviour modification. In order for a new behaviour to be adopted, a person must believe in the benefits of the new conduct, as well as the new behavior's beliefs. This allows for the removal of barriers and the adoption of the new behaviour.

Barriers to action, for example ("I don't enjoy using condoms").

Cues to action- Events, people, or things that cause people to change their behaviour are known as cues to action. The force to act is determined by an individual's judgement of susceptibility and seriousness. The course of action is defined by the benefits (less the barriers). The desired conduct may, however, necessitate a 'cue to action.' Internal or external cues can be used. Events that encourage people to take action, whether they are bodily(internal) (e.g., physical symptoms of a health condition) or environmental(external) (e.g., media publicity).

Cues to action, for example ("witnessing the death or illness of a close friend or relative as a result of AIDS").

Other Variables: Various demographic, socio-psychological, and structural factors that influence a person's perceptions and, as a result, indirectly influence health-related behaviour. For example, if a person is diagnosed with a sexually transmitted disease and successfully treated, he or she may have a heightened impression of susceptibility and be more aware of risky sex as a result of this past experience. In contrast, because the std is quickly treated and cured, this previous experience would reduce the person's perception of its importance.

Self-Efficacy: Belief in one's ability to successfully perform the behaviour necessary to achieve the desired results. Self-efficacy has gained in relevance as the nation's health concerns have turned to lifestyle-related problems, both as a standalone concept and as a component of the Health belief model.

For instance, belief in the new behavior's efficacy ("Condoms are beneficial against HIV transmission").

The health belief model assists nurses in better understanding the elements that influence clients' perceptions, attitudes, and actions so that they may plan care that will most successfully aid clients in maintaining or regaining health and preventing sickness.[10]

Scope and Application

- The Health Belief Model has been used to study a wide variety of health behaviours and groups. There are three major areas to consider:
- Health-promoting (e.g., diet, exercise) and health-risk (e.g., smoking) activities, as well as vaccination and contraceptive practises, are all examples of preventive health behaviours.
- Sick role behaviours, which refer to following prescribed medical regimens after a professional diagnosis of disease.
- Use of a clinic, which includes visits to a doctor for a number of reasons[10,11,12]

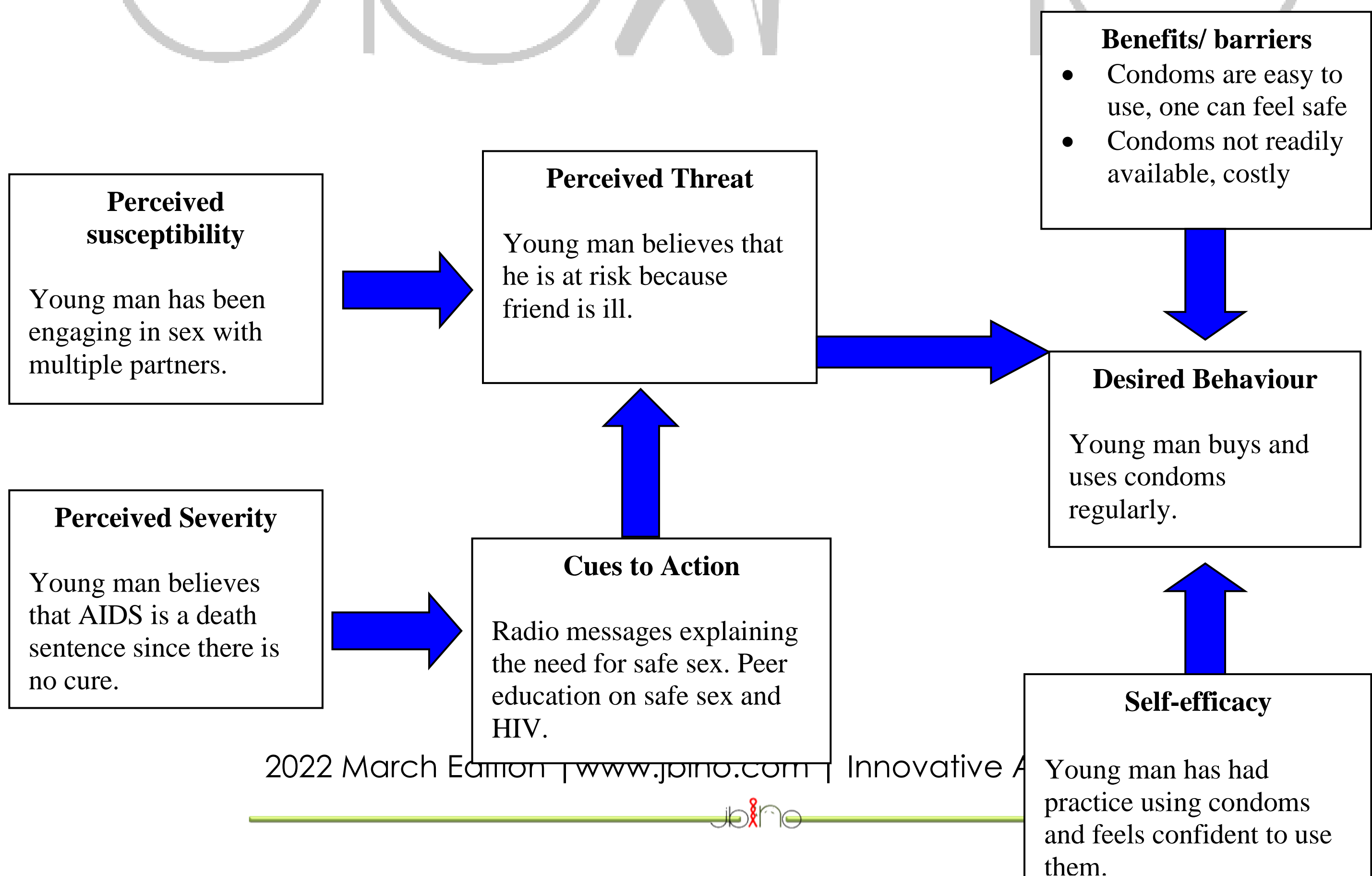

Fig.1 Modified Health Belief Model as applied to HIV prevention with evaluated behavioral interventions

Application of Health Belief Model: Challenges and Considerations

Challenges include:

- It's important to avoid "blaming the victim." The Health Belief Model (HBM) emphasizes personal responsibility, which may make people believe it is their fault if they are unable to solve their own health issues. Unfortunately, health problems are frequently more complex, and they may be caused by variables over which an individual has less control (e.g., economic or environmental factors).
- It might be difficult to provide significant cues to action, especially as time goes on. Check to see if you have authority to send reminder messages outside of class (e.g., posters, newsletter submissions, announcements).

Other special considerations include the following:

- Because the HBM focuses on ideas and attitudes, it may be less effective in addressing habitual behaviours such as smoking, dieting, or other emotionally motivated health behaviours. These are two distinct behaviours that should be addressed separately. Furthermore, because economic and environmental factors are outside of an individual's control, the Health Belief Model does not address them.
- The HBM is a good fit for prevention-focused programmes because these programmes generally promote specific actions, and the HBM assists participants in taking those actions. HBM, on the other hand, isn't necessarily a suitable fit for complete family life education programmes, which are more information-based and cover a larger range of themes.
- To help build self-efficacy, encourage youth to set short-term goals, which are generally easier to achieve and Encourage youth to set short-term objectives, which are often simpler to achieve and receive reinforcement for than long-term goals, which may not be reached for months or years, to help them gain self-efficacy.
- Grant assistance for HBM-based projects may be easier to come by from funding sources. Funders like to support programmes that have been properly created and are based on well-researched methodologies and models like the HBM. Combining the HBM with other learning theories (e.g., Social

Learning Theory) is more beneficial than providing precise rules for teaching skills.

- Be aware that the HBM uses "appropriate fear-based messages" in order to facilitate youths' perceived susceptibility and severity. Be careful not to overdo it. When fear levels are too high, youth may feel helpless.

- For a multi-layer intervention, the HBM is far more successful. Multiple interventions (for example, a school health fair, classroom instruction, and an educational marketing campaign) are more effective than a single one.

- The HBM is best suited for a brief intervention aimed at achieving a specific goal. It is possible that it will be less effective in achieving long-term change.[12,13,14]

Limitations of Health Belief Model

The HBM has a number of flaws that restrict its utility in public health. The following are some of the model's limitations:

- It does not take into consideration a person's attitudes, beliefs, or other personal factors that influence their acceptance of a health activity.
- It does not take into consideration habitual behaviours, which could influence whether or not to accept a recommended action (e.g., smoking).
- It does not account for activities that are carried out for reasons other than health, such as social acceptance.
- It does not take into consideration environmental or economic factors that would make the recommended action impossible or beneficial.
- It is presumptively assumed that everyone has equal access to information about the condition or disease.
- It believes that cues to action are extensively used to encourage people to act, and that the primary purpose of the decision-making process is to take "healthy" choices.[15]

The HBM is more descriptive than explanatory, and it makes no recommendations for how to change health-related behaviours. Early research found that perceived susceptibility, advantages, and barriers were consistently related with the desired health activity in preventive health activities; perceived severity was less frequently connected with the desired health behaviour. Individual constructs are beneficial depending on the health result of interest, but the model should be integrated with other models that account for the environmental context and recommend change strategies for the most effective use of the model.

Conclusion: A sense of independence, optimism, a sense of psychological wellbeing, and a condition of physical, emotional, social, and spiritual soundness are all the part of the concept of health. Nurses use health models to better understand the connections between health, wellness, and sickness. Nurses can be a important connection in improving individual and societal health in this era of

cost containment and improved technology.

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