



HEALTH BEHAVIOUR CHANGE AND ITS ROLE IN DISEASE PREVENTION AND MANAGEMENT

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ABSTRACT

Health behavior change is critical in preventing and managing chronic diseases and also influences the complex interplay of biological, psychological, and social aspects. The present research examines the importance of modifying health behavior, the influence of illness views, and the role of health psychologists in encouraging behavior change. Various theoretical models, such as the Health Belief Model and the Protection Motivation Theory, provide frameworks for understanding and guiding behavior change. The effectiveness of interventions, including goal setting, self-monitoring, and tailored therapeutic approaches, highlights the need for comprehensive strategies to promote positive health behaviors. Successful health behaviour change is essential for reducing morbidity and mortality rates, particularly in addressing non-communicable and lifestyle-related diseases.

KEYWORDS: Health Behavior, Models of Health Behavior Change, Intervention, Role of Health Psychologist

INTRODUCTION

According to the National Institute for Clinical Excellence (NICE), altering health-related behaviours can significantly impact mortality and morbidity rates (NICE, 2023). Health is no longer confined to the physical domain; it encompasses social, psychological, and cultural aspects that shape habits, beliefs, and attitudes towards well-being. Modern lifestyle choices, driven by technological advancements, have contributed to a rise in chronic lifestyle disorders, making behaviour change an essential component of public health. According to a study conducted in the U.S. smoking is still the greatest cause of death. However, poor nutrition and physical inactivity may soon surpass tobacco as the primary cause of mortality. Together with rising healthcare expenditures and an aging population, these results provide a compelling case for implementing a more preventative approach in the US health-care and public health systems (Mokdad et al., 2004). The situation is grave in the context of developed nations like U.S. as well as developing nations like India. Be it any place, health behavior change is, both a challenging (as health behaviour is itself complicated) and an important task. Reducing negative health behaviors and developing positive ones can make all the difference between illness and health and, at length, between healthy aging and premature death (Luszczynska & Schwarzer, 2015).

The Complexity of Health Behavior Change

Health behavior change is a multifaceted process that requires a collaborative approach involving physicians, psychologists, and healthcare workers. The process involves reducing negative health behaviors and promoting positive ones to prevent and manage chronic conditions. Behaviour system incorporates three basic conditions, namely, capacity, opportunity, and motivation. This serves as the hub of a 'behavior change wheel' (BCW), around which are positioned nine intervention functions targeted at treating weaknesses in one or more of these conditions. The BCW was used consistently to characterize

treatments in the English Department of Health's 2010 tobacco control plan and the National Institute of Health and Clinical Excellence's obesity-reduction guidelines (Michie et al., 2011; Raihan & Cogburn, 2024). It is crucial to comprehend health's biological, social, and psychological dimensions to achieve effective health behaviour change. As health behaviors are deeply ingrained in individuals' lifestyles, changing them is both challenging and crucial for preventing premature death and promoting healthy aging. Another research identifies frequent flaws in efforts to modify behavior, that impede the use of scientific data from psychology and sociology. It proposes a novel method that incorporates current advances in behavioral sciences to solve policymaking difficulties and better understand the variables that influence health behaviors. The study highlights the necessity of understanding the psychological and sociological variables that lead to behavior, as well as blending psychological and sociological perspectives on social practice (Kelly & Barker, 2016).

The Role of Illness Representations in Health Behaviour

Illness representations, or personal views of health and illness, play a significant role in how individuals approach health behavior change. These representations include how individuals label illness, recognize symptoms, perceive the causes and consequences of diseases, and assess the controllability of these conditions (Leventhal et al., 1980). Research has shown that attentional focus, or awareness of physical symptoms, influences health behavior. A study highlighted that more than one-third of men would not go to a doctor even if they experienced severe chest pains or shortness of breath. Women made much more visits to primary care clinics and diagnostic services than males (Bertakis et al., 2000). Another survey brought forth the fact that while 55 percent of women underwent cancer screening, only 32 percent of men did so. Such statistics provide insight into the subtle and basic health behaviour patterns (Davis et al., 2012). Understanding the nature of health behavior as prevalent

in the general population is essential to modifying it for the better.

Health Psychologists and Their Role

Health psychologists play a crucial role in promoting health behavior change. They work in various settings, including primary care programs, specialized healthcare programs, and community health settings, to address behavioural and cognitive aspects of health (Ogden, 2019). Their work involves diagnosing and treating patients with chronic illnesses, developing cognitive coping skills, and improving care for the dying (Marks et al., 2018). By understanding the psychological phenomena underlying health behavior change, health psychologists can help individuals overcome barriers to treatment adherence and promote long-term health behaviour change (Suls & Rothman, 2004). In a study it was found that only 20 to 40 percent of participants in a treatment program for smoking, alcohol or drug abuse stayed with the treatment, the rest left it midway (Prochaska et al., 1992). As the management and treatment of chronic illnesses and lifestyle disorders is a long-term process and involves work on personal habits, beliefs, attitudes, and, at times, even emotions, the patient-provider relationship becomes significant. The rapport between the patient and the provider needs to be well established so that a healthy therapeutic relationship may be founded for desired and effective change. Health behavior change involves identifying problematic behaviors, setting goals for health behavior change, and achieving the desired change. The health goals must be designed to involve the patients themselves, thus keeping the goals as realistic and attainable as possible. The individual's motivation for behaviour change remains a key factor in this case. The health psychologist helps the person overcome mental, emotional, and other barriers that might obstruct his compliance with instructions and treatment adherence (Bailey, 2017).

Psychologists in this discipline apply research on how to avoid harmful behaviors like smoking and find novel strategies to support healthy behaviors like exercise. Health psychology studies how biology, psychology, behavior, and social factors impact health and illness. Health psychology aims to promote health while preventing and treating sickness and illness. Health psychologists also study how individuals respond, deal, and recover from illness. Some health psychologists try to enhance the healthcare system and the government's attitude to healthcare policy. (Malik, 2018; Taylor, 2018).

It may be helpful to work with patients to set health objectives, remove obstacles, and monitor their behaviour. Psychologists have a wide clinical role as health professionals, which include providing treatment in primary, secondary, and tertiary settings, as well as specializing in several subspecialties. In general, psychologists evaluate, diagnose, and provide treatment for psychological issues and behavioral disorders that arise from or are connected to physical and mental well-being. Furthermore, they significantly contribute to the advancement of positive conduct, the prevention of illnesses, and the enhancement of patients' overall well-being. They carry out their therapeutic responsibilities by stringent ethical guidelines and a code of

conduct (Wahass, 2005).

The American Psychological Association (APA) states that health psychologists participate in health care in various settings. Settings include primary care programs in patient medical units and specialized Healthcare programs like pain management, rehabilitation of women's health at colleges, smoking cessation, and headache management (APA, 2020).

- Health psychologists play a pivotal role in primary and secondary prevention. Health psychologists help in disease prevention and health promotion. They provide support and psychosocial interventions.
- Health psychologists assist in diagnosing and treating patients with chronic illnesses.
- Psychologists provide mental and behavioral health services. Health psychologists work in health and social care settings and work with people of all ages who experience physical or mental illness.
- Health psychologists help in developing cognitive coping skills.
- Health psychologists help in improving the care of the dying. There are certain diseases that are chronic and, at times, involve the dimension of fatality, in which case it is essential to provide counseling not only to the patient but also to the caregivers (Thielke et al., 2011).

Theories and Models of Health Behaviour Change:

Tremendous research into understanding health behaviour, development, and change of habits has led to the emergence of numerous theoretical and explanatory models. One of the top-rated models is the Protection Motivation Theory. PMT is an instructional and motivational paradigm that explains why individuals participate in problematic behavior patterns and provides ideas for altering them (Rogers, 1983). PMT aids in comprehending human reactions to fear appeals. The approach highlights that individuals defend themselves using two factors: danger and coping evaluation. Threat assessment is the process by which a person assesses a scenario based on its severity and gravity, as well as the likelihood of its recurrence. Coping evaluation, on the other hand, is concerned with how a person reacts to any given scenario. Coping assessment is made up of perceived response efficacy and perceived self-efficacy. PMT entails both primary and secondary prevention behaviors. While primary prevention helps avoid the development of a health problem, secondary prevention helps prevent the situation from worsening (Floyd et al., 2000; Marikyan & Papagiannidis, 2023).

Theoretical Models of Health Behavior Change

Several theoretical models have been developed to understand and explain health behaviour change (Schwarzer, 1992, 2011):

1. **Health Belief Model (HBM):** Hockbaum developed the HBM in the 1950s. This model suggests that for health behavior change, individuals must perceive susceptibility to a condition, recognize the severity of the condition, and trust in the benefits of taking preventive action (Rosenstock, 1974; Alhamad & Donyai, 2021). The Health Belief Model (HBM) is a popular way to explain how people

behave when it comes to their health. It has six parts: risk susceptibility, risk seriousness, benefits to action, hurdles to action, self-efficacy, and cues to action. The HBM was first created to show how people in the United States adopt healthy habits. It has since been changed to fit different cultures and current events (Jones et al., 2015).

For example, health promotion messages, such as mass media and peer education, could act as cues to change unhealthy behaviors, such as smoking. The Health Belief Model can identify leverage points for change, such as coaching smokers on quitting methods or encouraging them to enroll into supportive programs. The model is considered as individual-centered and emphasizes on an individual's perceived susceptibility to health threats and his perceived benefits from changing behavior. It assumes that people are rational and do the right thing, once provided with satisfactory information and the understanding that change would be in their self-interest. However, the model may not be effective if a person is not concerned about negative health consequences or is not currently in a rational frame of mind (Green et al., 2020).

2. **Trans-Theoretical Model (TTM):** Developed by Prochaska, Norcross, and DiClemente in the 1970s, the TTM explains behaviour change through stages of change, processes of change, decisional balance, and self-efficacy (Prochaska et al., 1992). The trans-theoretical model of health behavior change includes six stages, namely, precontemplation, contemplation, preparation, action, maintenance, and termination. The model has been widely applied to various health problems, including addiction and eating disorders. Ten processes like decisional balance, self-efficacy, temptations etc. contribute to progression. An empirical guideline for people at risk is that 40% are in the pre-contemplation stage, 40% are in the contemplation stage, and 20% in the preparation stage (Prochaska & Velicer, 1997). TTM has occurred as a widely used theoretical and clinical framework in mental health. It has proven to be effective in addressing a wide range of issues, including smoking, alcohol abuse, addiction, weight management, exercise adoption, sunscreen application, condom usage, school bullying, and preventive measures such as medical screenings like mammography and cancer screening. Pre-contemplation is a stage where individuals are unmotivated and unaware of the problem, often unwilling to change due to the constant pressure from others. This stage is marked by denial and defense of actions, often leading to resistance and a lack of insight into the consequences of negative behaviors. The second stage is contemplation, which is characterized by knowledge of harmful behavior, but lack of clarity regarding what that could mean. This internal approach-avoidance struggle leads to little readiness to take the necessary measures toward transformation. People in this stage are more willing to learn about their habits and find ways to change them. This stage is behavioral procrastination or chronic contemplation. The next step is planning, which is where people easily admit that they are doing something wrong and promise to change it. They

start to gather information from different places, like self-help books, explore therapy, and other relevant programs that could help them make changes. Gathering information is crucial in preparation, as it helps avoid insufficient planning and relapse. By understanding the importance of each stage, individuals can better understand the potential benefits and challenges of change, ultimately leading to healthier, more fulfilling lives (Raihan & Cogburn, 2023).

The various stages of change (TTM) involve three steps: action, maintenance, and termination. During the action stage, people successfully refrain from engaging in negative behaviors for less than six months. They acquire confidence and assess their level of dedication to themselves. They are open to receiving aid and backing, cultivating immediate positive encouragement, and acknowledging possible obstacles to be overcome. During the maintenance stage, people sustain complete abstinence for a period beyond six months. They develop more self-assurance in their capacity to keep good lifestyle modifications and experience less temptation and anxiety of relapse. They have the ability to maintain a newly established state of affairs and regularly reinforce their advancements. They acquire expertise in predicting probable stimuli that might lead to a recurrence and have developed coping mechanisms to proactively address those circumstances. The primary objective of TTM is to develop a strategic course of action aimed at avoiding relapse and sustaining abstinence. Relapse is a prevalent element in the process of behavior change and should be openly addressed and accepted as a natural occurrence. Behavioral change sometimes involves a cyclical or repetitive process of phases rather than a straightforward linear development. Relapse should be seen not as a failure, but as a chance to reassess triggers, motivation, and hurdles, and develop more robust contingency plans. Termination, the ultimate phase, is often excluded from TTM due to its challenging nature. It refers to a time when there is no desire to return to old habits and the accomplishment of complete personal effectiveness. Factors required to assist with stage progression include the processes of change, decisional balance, and self-efficiency (Raihan & Cogburn, 2024).

3. **Theory of Reasoned Action (TRA):** Developed by Fishbein and Ajzen in 1975, the TRA suggests that health behaviour change is under voluntary control and depends on an individual's attitude towards the behaviour and the influence of subjective norms (Fishbein & Ajzen, 1975). The Reasoned Action Theory (TRA) is a conceptual framework that identifies the primary factors influencing behavior and their origins. It also establishes the connections between these variables to provide an explanation for behavior based on rational decision-making. The compatibility principle asserts that the level of accuracy in measuring behavior, beliefs, attitudes, and intentions leads to the most precise projections of future behaviour (Raihan & Cogburn, 2024; Tewari & Mirza, 2021).

The TRA consists of three structural components that

explain behavior formation. First, beliefs can originate from diverse sources. Secondly, behavior can be predicted by intention, which is elucidated in terms of attitude, perceived norms, perceived behavioral control, and underlying beliefs. Finally, the TRA provides an explanation of the origins of those beliefs. People are more likely to engage in intentional behavior, if they have a positive perspective on the action and are confident in the outcomes. Individuals' attitude towards behavior is influenced by their beliefs regarding the behavior and the perceived consequences. Subjective norms are established by individuals or groups in response to their assessment of the approval or disapproval of a specific behavior by others. Normative social influence has a substantial persuasive impact on individuals because it shapes their intentions based on their perception of whether important people in their lives approve or disapprove of their conduct. This theory helps researchers comprehend the correlation between behavior, attitudes, and social norms, with the aim of more accurately forecasting and controlling actions (Tewari & Mirza, 2021).

Interventions for Health Behavior Change

Many researchers and theorists have attempted to understand and explain the intricacies of and explain the psychological phenomena underlying health behavior change. Each of the models has been applied to practical clinical situations and has been found to have its strengths and weaknesses. However, the following techniques and strategies have been found to be very effective while dealing with various health issues.

1. **SMART Goal Setting:** It is always wise to set Specific, Measurable, Attainable, Relevant, and Timely goals. Goals set in such a manner are brilliant, and the accomplishment rate is higher for patients. A concrete example of a SMART goal is, "I will participate in 30 minutes of aerobic exercise 5 days per week for the subsequent 4 weeks." Clearly stated objectives are essential for achieving goals as they assist people in concentrating their aspirations and intents, while also establishing a benchmark for measuring progress. In addition, a SMART goal should include the aforementioned goal qualities, which include being inherently motivating, focused on both approach and mastery, and suitably difficult. One drawback of SMART objectives, however, is their lack of specificity on the implementation of the goal. In the aforementioned example, physical exercise may be accomplished by a range of methods, such as strolling around a designated area, jogging on a track, visiting a fitness center, engaging in a single 30-minute session of physical activity, or participating in three separate 10-minute sessions of physical activity. Clinicians may assist patients in creating action plans to promote the execution of SMART objectives (Bailey, 2017).
2. **Problem-Solving Barriers:** Often, doctors complain that patients are insincere in following the health advice given to them. It is always better for doctors or health psychologists to identify possible barriers to change, in the initial stages. This shall help develop workable solutions,

leading to tremendous success in health behaviour change.

Keyworth et al. (2019) investigated the obstacles and facilitators encountered by different healthcare professionals when providing opportunistic behavior change treatments to patients during regular visits. The research employs a framework based on established theories to explain the variations seen across different professional groups. It offers valuable information on the four primary categories that give the most comprehensive understanding of the difficulties encountered by healthcare providers while implementing opportunistic behavior change treatments. Studies show that patients are receptive to the idea of discussing behavior modification, as long as the appropriate healthcare practitioner approaches it sensitively. Health risk communication techniques are dependent on health care providers' perception of patient risk and patients' desire to engage in preventative measures. Healthcare providers' own health habits influence their perceived suitability as role models, as engaging in unhealthy behaviors reduces their ability to effectively implement behavior modification treatments. This weakens information reliability and causes patients to disregard health-related information.

3. **Self-monitoring:** Having patients keep a record of their behaviour has shown to be a beneficial and effective technique. This technique helps in increasing self-awareness and reflection and thus provides better results. Maintaining a handwritten diary or keeping track with the help of online applications have both been found to be practical and handy.

Self-monitoring techniques have shown encouraging outcomes in several domains, including enhancing focused behavior, diminishing problematic behaviors, and mitigating stereotypes in individuals with intellectual impairments. Due to technological advancements, self-monitoring processes have expanded beyond traditional pen and paper records. Clinicians and professionals now have the ability to detect specific behaviors and establish objectives in collaboration with their clients (Page et al., 2020).

Apart from these three general techniques, various techniques and approaches are used frequently for specific behaviour changes:

1. **Lack of Physical Activity:** Recognizing physical inactivity as a health issue may raise awareness for engaging in physical activity, among patients and primary care providers, resulting in an action plan. Physical activity advice should consist of evidence-based suggestions. It is the role of the therapist to thoroughly assess safety concerns to maximize the use of primary care services, and "tailor" physical activity therapy strategies for each individual, utilizing appropriate counseling techniques and resources specific to their setting. The patient and the therapist collaboratively work to pick an activity type (preferred by the patient), set its duration (reasonable

period), and frequency, and bring it into execution for the patient (Wattanapisit et al., 2021).

2. **Unhealthy Eating:** Making small changes initially is the key to long-term significant changes. Psychologists must help patients to choose small and attainable goals to change their diets. The plate method helps patients, plan their plates to include 50 percent fruits and vegetables, 25 percent lean protein, and 25 percent grains or starches (Hooker et al., 2018).
3. **Lack of Sleep:** A brief behavioral therapy is often used for this problem. Patients are advised to write sleep diaries wherein they mention sleep restrictions (reducing the amount of time in bed) and develop sleep scheduling (daily bed and wake-up times) (Morin et al., 2006; Hooker et al., 2018).
4. **Medication Non-Adherence:** Providing primary education about the illness, its nature, and the role of treatment is necessary to instill drug adherence behavior. Patients ought to be instructed on drug therapy. Psychologists help patients make a medication routine. To improve the chances of the patient remembering to take medicine on time, it is helpful to include taking the medication into an established routine. Being part of a social network that has your back is a huge asset. When it comes to filling pillboxes or reminding patients to take their medications, family members or friends play a crucial role (Osterberg & Blaschke, 2005; Hooker et al., 2018).
5. **Smoking:** The five 'Rs' are considered in relation to this issue: patient relevance, smoking dangers, quitting incentives, obstacles, and continuation of the discussion. The best way to quit is to set a date. In order to quit smoking and stay smoke-free, patients should select a quit date (Fiore et al., 2008; Hooker et al., 2018).

Health behavior change is a complex yet complete solution to health problems, as health behavior choices govern most health problems. Thus, health behavior change counseling is the backbone of successful treatment for physical illnesses, especially non-communicable, chronic, and lifestyle-related (Murray et al., 2013).

CONCLUSION

Health behavior change is a complex but essential process for preventing and managing chronic diseases. Understanding the psychological, social, and biological factors influencing health behaviours requires a comprehensive approach. Health psychologists play a pivotal role in this process by working with patients to develop health goals, overcome barriers, and promote long-term behaviour change. The success of health behaviour change interventions lies in their ability to address the underlying factors contributing to unhealthy behaviours and support individuals in making sustainable lifestyle changes.

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