Health Belief Model and Reversal Theory: a comparative analysis

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Background. In recent years, an increasing number of nurses have demonstrated interest in health behaviour change interventions and research. Despite this heightened enthusiasm, there appears to have been less interest in exploring new and emerging health behaviour change theories.

Aim. The goal of this work is to assist clinicians and researchers to make more informed choices about the use of the Health Belief Model and Reversal Theory in their practice settings and research projects.

Method. Primary sources were analysed using qualitative data analysis methods in order to compare and contrast the two models. Four comparative categories provided the structure for analysis: origins of models, ways of knowing and behaving, role of health care providers in behaviour change, and desired outcomes.

Results. Based, in part, on their historical origins, the Health Belief Model and Reversal Theory offer differing tenets regarding how individuals perceive, understand, and behave. According to Reversal Theory, ways of knowing and behaving are dependent upon innate physiological factors and subjectively structured perceptions. In contrast, the Health Belief Model suggests that health-related behaviours are largely attributable to cognitive decision-making processes. As such, health care providers are directed to approach health behaviour change in different ways.

Conclusions. Although the Health Belief Model has been widely implemented, Reversal Theory may offer a more comprehensive framework for health behaviour change interventions and research. Clinicians and researchers are urged to learn more about this theory and how it may apply to their areas of practice and research.

Keywords: health behaviour change, Reversal Theory, Health Belief Model, nursing
Introduction

In recent years, nurses have demonstrated considerable interest in health behaviour change interventions and research. Based on an online search of the Cumulative Index to Nursing and Allied Health (CINAHL, 1982–2002) using the key words health behaviour change, there appears to be particular interest in topics such as physical activity and exercise, weight management, prevention and management of human immunodeficiency virus, cancer prevention, and cardiovascular risk reduction. These topics reflect some of the most ubiquitous health problems and threats to well-being across the globe.

Despite this apparent focus on health behaviour change, there appears to have been less interest in exploring new and emerging health behaviour change models. For example, based on a second literature search of 28 health behaviour change theories (CINAHL, 1982–2002), the Health Belief Model was determined to be one of the most popular frameworks (711 citations), whereas, the more recently developed Reversal Theory appears to have garnered little attention (14 citations). Owing to this finding, the models’ intriguing similarities and differences, and each frameworks’ apparent usefulness to researchers and clinicians; these two theories were selected for analysis. The goal of this work was to assist clinicians and researchers to make more informed choices about the use of these models in their practice settings and research projects.

Literature search and analysis

As a part of this project, efforts were made to move beyond a mere overview of the theories. To provide a more substantive analysis, the following steps were employed:

- A thorough search of the literature was conducted to identify primary sources related to the Health Belief Model and Reversal Theory that were written by the original theorists and other recognized experts in these areas. Computer databases such as MEDLINE, Pre-MEDLINE, PsycINFO, SocioFile, and CINAHL (1967–2002) were searched for journal articles. An electronic multi-campus network of library holdings was used to identify books. Particular note was taken of references that were frequently cited in bibliographies and appeared to be classics.
- References were selected that reflected the models’ original formulations and origins, and changes that have been made to the theories over time. In some instances, content within references was repetitive. When this occurred, the most comprehensive sources were selected for analysis.
- The selected references were read, and key text units were highlighted for transcription and further analysis. Key text units were defined as those that provided clear explanations and analyses of the models’ components.
- Transcriptions of key text units were imported into QSR NUD*IST 4 software and analysed based on qualitative methods outlined by Strauss and Corbin (1998).
- Four main categories (see Table 1) were identified for analysis: origins of models, ways of knowing and behaving, role of health care providers in behaviour change, and desired outcomes (Strauss & Corbin 1998). In concordance with this coding structure, the models were compared and contrasted and implications for research and practice were identified.

Origins of models

The genesis of Reversal Theory stems from observations of children’s behaviour in guidance clinics during the 1970s (Apter 2001b). The theory was also based on theorists’ observations of their own behaviours and the mental states that accompanied those behaviours (Apter 1981). In general, the theorists rejected other models of human behaviour such as cognitivism, social constructionism (Apter 1997), and behaviourism (Brown 2001).

In contrast, the Health Belief Model dates back to the 1950s, a time in which new public-health programmes were being initiated. In turn, health care providers became aware that many individuals failed to take advantage of low-cost preventive health care services, such as polio vaccinations and tuberculosis screenings. The model was initially developed to account for these concerns, however, it was eventually expanded to address existing health problems and therapeutic interventions (Rosenstock 1974a, Strecher & Rosenstock 1997).

Based on this cursory comparison, it is clear that impetuses for model development in each case were quite different. Reversal Theory experts were initially focused on the psychosocial behaviour of children, whereas Health Belief Model theorists were primarily interested in the action (or inaction) of adults. In both instances, however, the theorists were intrigued by the apparent paradoxes of human behaviour. In the latter case, the paradox of interest involved the failure of individuals to take advantage of easily accessible preventive health care services. In the former instance, experts were interested in the bewildering, contradictory, and sometimes, self-defeating behaviour of children. Despite these contextual differences, both models were developed to explain the perplexing actions of human beings.
Ways of knowing and behaving

Reversal Theory

Analysis of the theories resulted in an awareness that each model is premised on fundamental assumptions regarding human beings. In particular, the models offer perspectives regarding ways of knowing and behaving, which have implications for understanding individuals’ health-related behaviours. Within the context of Reversal Theory, ways of knowing and behaving are thought to be largely governed by innate physiological factors (Lewis & Svebak 2001) and emotions (Apter 2001d). Each person’s thoughts and actions are dependent upon these inborn proclivities, and behaviours are viewed as involuntary (Apter 2001a). Moreover, each person is presumed to subjectively structure their perceptions and interact with their environments in unique ways (Lewis & Svebak 2001).

Despite the non-volitional and subjective nature of Reversal Theory, it is appealing to behaviour change interventionists and researchers because of its adherence to the notion that innate patterns of thinking and functioning have the potential to be empirically identified and influenced. Identification of these patterns is possible, because they are although to comprise predictable structures, which can be observed, codified, and indirectly moulded via interpersonal
and extrapersonal circumstances (Apter 1997, Apter 2001d). As such, it is perceived that patterns of behaviour can change and be changed in predictable ways.

Telic–paratelic metamotivational states
Within the context of Reversal Theory, behaviour patterns are identifiable, as each person demonstrates a dominant structure of behaving based on a combination of several metamotivational states. The first of these is the telic state (Apter 1981). Functioning within this mode, individuals are focused on pursuing subjectively defined goals. They are serious minded, sensible, cautious, and future oriented (Apter 2001a). The manner in which end goals are achieved is secondary (Apter 1981) and may change to enhance efficiency and diminish anxiety (Apter 2001a). For example, individuals who value a healthy diet and are innately functioning within the telic state are likely to find shopping, cooking, and preparing a gourmet meal to be superfluous and annoying. Instead, they are apt to be much more comfortable achieving their dietary goals by consuming very simple meals that are easy to prepare.

The second innate metamotivational mode that may govern behaviours is the paratelic state. Unlike persons who are functioning within the telic mode, individuals governed by paratelic tendencies are activity oriented. They look for immediate enjoyment, are adventuresome, spontaneous, and thrill seeking (Apter 2001a). In the paratelic state, goals are not essential, rather, experiential processes are of greater importance (Apter 1981). Contrary to individuals who are telically oriented, those with paratelic affinities are more likely to enjoy preparing a gourmet meal. Combing through recipe books, planning menus, shopping for exotic ingredients, experimenting with spices, and setting an elegant table are likely to be pleasurable, whereas, the nutritional value of the final product may be secondary.

Identifying whether a person is telic or paratelic dominant can be very important in terms of selecting interventions that may be effective in changing health-related behaviours. For instance, individuals with diabetes who are influenced by the telic state may easily comply with a simple but rigidly outlined diet to control blood sugar. Alternatively, those who are paratelicly influenced may view controlling their glucose levels to be necessary, but secondary to the fun involved in learning about new and innovative ways of preparing meals. In light of these differences, a diabetes educator would ideally approach these individuals in different ways. Simple instructive pamphlets may be quite effective for telic-oriented individuals, whereas, a series of specially designed cooking seminars may be more effective for paratelic-dominate persons.

Conformist–negativistic metamotivational states
Along with an affinity for the telic or paratelic state, individuals will also demonstrate a metamotivational proclivity for conformity or negativism, which will influence their desires and behaviour patterns. In the case of conformists, adaptability and fitting in are important. These individuals are comfortable with rules and tend to be dutiful and obedient. In contrast, people in the negativistic state view rules as restrictive, and freedom and independence are of the utmost importance (Apter 2001a, 2001c).

Similar to the telic or paratelic states, conformist or negativistic modes also render implications for behaviour change interventionists. For example, if a patient tends to rigidly conform, a diabetes educator might want to work with this individual to creatively plan meals. Alternatively, if an individual tends to resist rigid edicts, the nurse may need to emphasize dietary guidelines while, at the same time, allowing for flexibility, since this person will be most comfortable in circumstances that allow for independence.

Although the terms conformity and negativism engender positive and negative connotations, neither of these metamotivational states is totally good or bad. In the case of an individual with diabetes, overly strict conformity to a rigid dietary regimen may mean that the individual refuses to eat in restaurants, where absolute adherence to a preplanned menu may be impossible. Over time, this type of rigidity could greatly curtail socialization and travel. Instead, creative liberties (a form of negativism) may be adaptive when a friend unexpectedly treats a coworker to lunch on her birthday.

Autic–alloic metamotivational states
Another pair of contrasting ways of knowing and behaving are the autic–alloic metamotivational states. In the autic state, persons are focused on themselves, and individuation is of primary importance. Autically oriented individuals are not interested in identifying with others, and they value personal responsibility. This contrasts with alloicly inclined persons who highly value identifying and assimilating with others and are unselfishly altruistic (Apter 2001a). Once again, these proclivities for innately knowing and being have significant implications for changing health-related behaviour patterns. For instance, it is unlikely that an autic-dominant person would be interested in participating in a support group. Alternatively, it is anticipated that an alloic-oriented person might readily benefit from the mutual sharing that occurs in an interactive group.

Mastery–sympathy metamotivational states
Final ways of knowing and behaving involve the mastery–sympathy metamotivational states. In these modes, the foci
are transactions. In the mastery state, transactions involve giving or getting, and the interpretation of these experiences will depend on the co-occurrence of autic or alloic dominance. For example, within the context of a mastery–autic coupling, giving could be perceived as losing, and humiliation might be the felt outcome. Within the context of a mastery–alloic pairing, however, this same giving (or losing) transaction could be perceived as a form of modesty. Similarly, in the mastery state, gaining (or winning) might be experienced as pride or shame, depending on the autic–alloic context (Apter 2001a). In the case of sympathy-state dominance, individuals perceive the world as harmonious and cooperative. The goals of sympathy-state transactions are to be liked or loved. Thus, giving or accepting transactions within the sympathy state are characterized by kindness, caring, sensitivity, and compassion (Apter 2001a).

Individuals would be expected to respond quite differently to therapeutic interventions depending on their mastery–sympathy dominance. For example, an individual with hard-to-control diabetes who is sympathy-state dominant would be expected to persevere and comply with diet and medication regimens, as health care provider approval would be important. Alternatively, someone who was mastery-state dominant, might find uncontrollable episodes of hyper-or hypoglycemia to be signs of personal failing. This could result in humiliation, discouragement, and avoidance of health care providers.

**Metamotivational states and health behaviour change**

As suggested earlier, none of the metamotivational modes are inherently good or bad (Apter 2001a). The ideal is for individuals to: (a) use the most appropriate coping strategies within a given metamotivational state and (b) adaptively move from one metamotivational state to another (Lafreniere et al. 2001). In keeping with the fundamental assumptions underlying Reversal Theory, reversing (changing) from one metamotivational state to another is involuntary. That is, individuals cannot consciously decide to reverse in the same direct way they decide to sit down. Rather, reversals can be indirectly induced by three phenomena: (a) environmental factors, (b) frustration, and (c) satiation (Apter & Heskin 2001).

Satiation is an internal force that builds over time, despite external circumstances or frustration. Given enough time, a reversal will spontaneously occur. Thereafter, satiation will build again, making one susceptible to reversal in the opposite direction (Apter 2001a). This may be what happens when individuals are initially awed by a beautiful sunset, but eventually tire of the view and look away. In terms of health-related behaviours, satiation may occur when individuals start out being very compliant about taking their prescribed medications and then, for no apparent reason, become less vigilant.

Alternatively, reversals may be induced when frustration builds over time. For example, despite their efforts, individuals may experience a great deal of frustration managing their glucose levels (Apter 2001a). In this case, it is easy to imagine how someone might reverse from a telic (goal-oriented) state to a paratelic (here-and-now experiential) mode. Finally, external events and situations may induce a state reversal (Apter 2001a). For example, to induce the telic state and eat according to a prescribed diet, individuals might place photographs of attractive models on their refrigerator doors. Alternatively, to promote a paratelic mode, weight conscious individuals might invite friends to a festive low-calorie salad luncheon.

**Health Belief Model**

Similar to Reversal Theory, ways of knowing and behaving within the Health Belief Model are based on subjective schemata (beliefs). For example, hunger is perceived to influence behaviour based on the manner in which it is cognitively interpreted (Rosenstock 1974a). Depending upon an individual’s subjective cognitions, late-night hunger may signal an opportunity to splurge on chocolate, despite adhering to a sound diet protocol throughout the rest of the day.

Also in congruence with Reversal Theory, patterns of knowing (beliefs) and behaving are perceived to change over time (Rosenstock 1966) and are conditioned by environmental factors and interactions with others (Kirscht 1974b). Moreover, emotions are thought to play a role in determining overt behaviour. In fact, in 1966, Health Belief Model theorists proffered that emotional elements may have a greater impact on behaviour than cognition (Rosenstock 1966). Despite this comment, the role emotions play in determining behaviour does not appear to have been extensively explored by the theorists.

In contrast to Reversal Theory, the Health Belief Model proposes that behaviour is based on a process of linear stages and phases, which are mediated by cognition (Rosenstock 1974b). Further, subjective beliefs are thought to be moulded over time by learning experiences (Kirscht 1974b). Thus, the two models differ in their interpretation of how behaviour change is initiated. For instance, Reversal Theory views behaviour change in congruence with the to-and-fro fluctuation of metamotivational states (for example, the telic–paratelic state) (Apter & Heskin 2001), whereas, the Health Belief Model contextualizes behaviour change as
more linear and unidirectional (Rosenstock 1974b). Another key difference between the two models is the volitional/non-volitional nature of behaviour. While behaviour is seen as non-volitional within Reversal Theory (Apter 2001a), it is perceived to be volitional within the context of the Health Belief Model. Therefore, health-related behaviours are viewed as the outcome of temporal decision making based on beliefs (Rosenstock 1974a).

Beliefs
According to the Health Belief Model, behaviour is influenced by multiple interacting beliefs. Among them are perceived susceptibility to and severity of a condition, efficacy of alternative behaviours, barriers to action, and self-efficacy. In regard to susceptibility, individuals vary greatly in terms of their perceived vulnerability. Perceptions range from total denial of susceptibility to perceptions of imminent risk (Strecher & Rosenstock 1997). For instance, people without a family history of diabetes may not perceive themselves to be susceptible to this condition. Alternatively, those who have a strong family history of diabetes may believe that they are highly likely to develop it.

Perceived severity is also thought to influence health-related behaviour and refers to the supposed consequences of contracting a health problem or leaving it untreated. Consequences may involve physical as well as a psychosocial outcomes (Strecher & Rosenstock 1997). For example, individuals’ perceptions of physical disability, pain, social restrictions, and financial costs related to diabetes will influence their eventual behaviours. Providing individuals perceive themselves to be sufficiently threatened by a health problem, action is not likely to occur unless they believe that their efforts will be efficacious. As such, the perceived benefits of their behaviours must outweigh the presumed costs (Strecher & Rosenstock 1997). In congruence with this line of argument, individuals with diabetes who are contemplating taking oral medication must perceive that such drugs are efficacious before they will use them.

Another factor that influences behaviour is perceived barriers, or the negative aspects of particular actions. Barriers may include financial costs, inconvenience, or pain (Strecher & Rosenstock 1997). For example, a supposed barrier to changing from oral medication to insulin may include physical pain. Individuals must believe that the discomfort of frequent glucose checks and injections will be outweighed by the benefits of improved health.

A final belief related to whether an action will be carried out is self-efficacy. Borrowed from Bandura’s work, self-efficacy is the perception that one can effectively execute a behaviour to produce a desired outcome (Strecher & Rosenstock 1997). In order for individuals to switch from oral medication to insulin, they must perceive that they are capable of carrying out the fine psychomotor skills that are necessary to check their glucose levels and administer an injection.

Beliefs and health behaviour change
According to the Health Belief Model, health behaviour change is initiated by readiness to take action, which is based on a balance of multiple beliefs (Rosenstock 1974b). This involves the balancing of beliefs regarding susceptibility, severity, behaviour efficacy, barriers, and self-efficacy. Although action cues or triggers have been suggested to play a role in behaviour change, this idea has not been well investigated. Rather, recent analyses suggest that perceived barriers may be the most influential belief system affecting behaviour change. Susceptibility and severity are hypothesized to provide the energy force to act, whereas, diminishment of barriers is thought to provide an accessible path for action (Strecher & Rosenstock 1997).

Role of health care providers in health behaviour change
Reversal Theory
Health care providers are interested in assisting people to change their behaviour to promote well-being. Thus, it is important to understand how each behaviour change model guides nurses to help individuals alter their behaviours. Within the context of Reversal Theory, two key intervention strategies are suggested: (a) helping individuals satisfy their metamotivational needs in adaptive ways, and (b) environmentally stimulating reversals to achieve more adaptive metamotivational modes (Lafreniere et al. 2001).

Although reversals are seen as involuntary, it is hypothesized that individuals can become aware of their metamotivational states and conditions in which reversals would be adaptive. Thus, health care providers are urged to help people gain as much control over their reversal processes as possible (Apter 2001d). This implies that nurses should become more sensitive to individuals’ metamotivational states and situations in which reversals should be promoted. Nurses are encouraged to conduct comprehensive assessments and frame health care problems within the context of metamotivational states. For instance, failure to follow a prescribed diet might be reframed as a non-adaptive propensity to remain in the paratelic mode (carefree, fun loving).

To overcome this problem, individuals might be asked to keep a log of their dietary habits. Entries could include...
information about what was eaten, the amount, circumstances surrounding their behaviour, and notations about how they felt at the time. In this way, individuals would be expected to become more aware of paratelic proclivities that could lead to overeating and environmental contexts that might promote this state. Further, in vulnerable situations, individuals might learn to set themselves up to reverse from a paratelic to a telic mode. For example, coming home to an empty house after school may be a tempting time for teenagers to overeat. Knowing this, they may environmentally coax themselves into a telic mode by seating themselves at their computers and focusing on their homework.

Alternatively, nurses should consider ways in which behaviour within metamotivational states can be therapeutically adapted. For instance, a paratelic-dominant individual might find solitary and uneventful late-night hours to be uncomfortable, and may over indulge in high-fat foods to alleviate these feelings of distress. To satisfy these paratelic tendencies in other ways, individuals could be encouraged to think about alternative activities that would satisfy their needs for experiential stimuli. For instance, health care providers might encourage paratelic individuals to try participating in online chat rooms, calling friends in other time zones, or working on challenging crossword puzzles.

The examples provided are somewhat simplistic given the number of combinations of metamotivational states that are possible and individuals’ unique sensitivities to satiation, frustration, and environmental influences. Despite this, however, the exemplars provide some insight into how behaviour change interventions might be framed within the context of Reversal Theory. In addition, they provide a basis for comparing and contrasting how individuals practicing within the Health Belief Model might approach health behaviour change.

Health Belief Model

In contrast to Reversal Theory, the Health Belief Model points to society-based interventions as well as individually targeted strategies (Strecher & Rosenstock 1997). This is in keeping with its public-health origins and a focus on population-based preventive health care measures (Rosenstock 1974a). Moreover, as behaviour is presumed to be volitional, interventions based on the Health Belief Model are largely targeted at either changing cognitions (beliefs) or activating those that already exist (Kirscht 1974a). Interestingly, however, Health Belief Model experts warn that direct attempts to change beliefs are rarely effective (Strecher & Rosenstock 1997). Instead, theorists suggest that efforts should be made to decrease environmental factors that may inhibit health behaviour change. In turn, it is hypothesized that beliefs regarding barriers to change will be altered (Rosenstock & Kirscht 1974, Rosenstock 1974a). For instance, health care providers are encouraged to minimize inconvenience, reduce costs, and decrease the need to travel (Rosenstock 1974b).

Health beliefs may also be indirectly altered based on social pressures (Rosenstock 1966). For example, posters in a workplace cafeteria might urge employees to select fruits and vegetables. Thus, at least in their company lunchroom, workers may feel social pressure to select an apple versus potato chips. Eventually, the hope would be that they would develop new beliefs about healthy eating, regardless of the setting.

Despite questions regarding effectiveness, there may be times when health care providers attempt to directly alter health beliefs because of the failure of more indirect strategies (Rosenstock 1966). When this is the case, it is suggested that nurses focus on changing multiple beliefs at once (Rosenstock 1974b). For example, persuading individuals to eat more nutritiously may involve addressing the increasing incidence of obesity (susceptibility) and pointing out the detrimental effects of being overweight (severity). In addition, testimonials from individuals who have successfully lost weight (efficacy) by implementing simple changes in their eating habits (minimal barriers) could be shared. Finally, nurses might point out how individuals have already made similar changes in other areas of their lives (self-efficacy).

Desired outcomes

Based on the tenets of each model, the desired outcomes of health behaviour change are somewhat different. Interventions grounded in Reversal Theory are designed to meet metamotivational needs in adaptive ways, help individuals agilely reverse (Lafreriere et al. 2001), and produce positive hedonic tone. At the very least, this suggests that tolerable feelings should emerge. Ideally, however, individuals will also experience periods of happiness (Apter 2001c, Brown 2001).

Alternatively, desired outcomes based on the Health Belief Model are somewhat more limited and involve a disposition to act to attain or maintain a positive state of health (Maiman & Becker 1974). In keeping with the model’s public health origins, this outcome appears to apply more to physical rather than psychological well-being. For this reason, Reversal Theory’s potential to address physical and psychological concerns is appealing. Following is a discussion of additional factors to consider when selecting one of these models to guide practice or research.
Selection of health behaviour change models

Reversal Theory

Based on the information presented, inferences can be made regarding the appropriateness of these two behaviour change models to guide research and practice. An important factor to consider when thinking about Reversal Theory is its complexity. In this article, some key components of the theory are summarized; however, many other facets of the model have not been described. Further, most individuals have focused on the telic–paratelic states and given little consideration to the other metamotivational modes (Apter 2001d). As such, based on its complexity alone, it would appear to be a difficult model to fully implement within clinical settings or research projects. Then again, human behaviour is generally perceived to be complex (O’Connell & Cook 2001). Hence, the theory may not be problematic; rather, our limited ability to implement and evaluate it may be at fault.

Another attractive aspect of the theory is the implication that innate physiological phenomena may, at least in part, be responsible for involuntary reversals (Apter 2001d). For example, it is relatively easy to imagine how biochemical transmitters (such as dopamine or serotonin) might satiate neurological receptors, which could result in behavioural reversals. Depending on a person’s biochemical makeup, it is also possible to envision how aberrations within this system could result in metamotivational stasis. In behavioural terms, paratelic stasis might present as substance abuse problems, whereas telic stasis could manifest as obsessive-compulsive tendencies.

Another strength of Reversal Theory is the way in which it addresses the potential value of non-conformity. Many behaviour change theories appear biased toward group norms, such as compliance with health care regimens. In contrast, Reversal Theory tenets allow for the potential value of non-conformity, dissension, rebellion, and other manifestations of the negativistic state, which appears apt within societies that value freedom of thought, speech, and action (Apter 2001d). Given this allowance for non-conformity, however, implementation of the model within very restrictive situations requires careful consideration. For example, after organ transplants, strict medication regimens must be maintained to prevent rejection.

Latitude for behaviour change over time and apparent unexplained behaviour changes (for example, reversals because of satiation or frustration) may also make Reversal Theory a salutary choice for use in clinical settings and research projects. For example, health care providers frequently confront situations in which individuals are seemingly stabilized on a drug regimen and suddenly quit taking their medications. Within the context of telic–paratelic or conformist–negativistic states, these types of behaviours can be understood and, hopefully, more efficaciously managed. A difficulty lies, however, in setting up experimental studies and quantitatively measuring and understanding these intra-individual differences over time (Apter 2001d). To remedy this problem, additional measurement instruments will need to be developed, and mixed method studies (qualitative/quantitative) may be necessary (Apter & Desselles 2001).

Health Belief Model

At first glance, the Health Belief Model may appear deceptively easy to implement in clinical settings and research projects because of its limited number of components. In general, however, there has been little appreciation for its complexity and the interrelationships among concepts. Many individuals have thought of susceptibility, severity, behaviour efficacy, barriers, and self-efficacy as independent components rather than as directly and indirectly interdependent, and for this reason, the model has frequently been misused (Strecher et al. 1997).

A central tenet of the model is that conscious decision making is based on attitudes and beliefs (Janz & Becker 1984). Although this perspective has been perceived as an asset, it may also be somewhat limiting as it does not clearly take into account why individuals sometimes fail to act on their belief systems. More consideration may need to be given to physiological factors and non-volitional causes of human behaviour. For example, following up on the 1966 suggestion that emotions may play a significant role in determining behaviour (Rosenstock 1966) may be salutary.

Critics also comment that the Health Belief Model is value laden (Janz & Becker 1984). Based on its 1950s public-health origins, the model provides for little variance outside of Western culture’s health-related belief systems. It is assumed that there are appropriate and inappropriate health-related beliefs, and intervention efforts should focus on moulding perceptions to conform with the former. Although this type of autocratic mindset might have worked well within the Western health care system of the 1950s, it may be somewhat limiting within a more global health care environment.

Also based on its origins, the Health Belief Model was designed to encourage participation in onetime preventive health care programmes such as polio vaccinations. From this vantage point, health behaviour change was not viewed as a long-term process. Although the model has been used in a
What is already know about this topic

- The Health Belief Model is one of the most popular frameworks guiding research and practice in the area of health behaviour change.
- In contrast, Reversal Theory has garnered little attention, despite its potential to offer new insights into health behaviour change.

What this paper adds

- The Health Belief Model and Reversal Theory present differing perspectives regarding ways of knowing and behaving; the role of health care providers in behaviour change; and outcomes of health-promoting behaviours.
- Neither theory is flawless but Reversal Theory suggests innovative ways to frame health behaviour change that are in concordance with contemporary views of human behaviour and self-management of health problems.

wide range of settings and circumstances, it is questionable whether the temporal nature of many types of behaviour change can be fully accounted for within this theoretical framework.

Finally, despite empirical support for the Health Belief Model, experts lament that the validity and reliability of research instruments used to study the theory are problematic. Frequently, the concepts being measured are inconsistent with the theory, and the direct cause and effect relationship between beliefs and behaviours is not fully examined. Moreover, as alluded to earlier, relationships among concepts and interventions to promote behaviour change have not been adequately explored (Strecher et al. 1997).

Summary

Neither of the theories selected for analysis is flawless. Although the Health Belief Model has apparent advantages in terms of ease of implementation, fundamental concerns remain. These include the failure of researchers and clinicians to fully appreciate the interdependency of the model’s components, its value-laden and time-bound nature, and the theory’s inattention to the role that emotions may play in determining behaviour. In addition, the instruments used to test the model have been criticized because of concerns regarding reliability and validity. Similarly, Reversal Theory offers advantages as well as disadvantages, which include the complexity of the theory and the challenges this presents in terms of implementation and measurement. At the same time, the theory offers new insights into non-conformity and innate fluctuations in behaviour over time. Reversal Theory presents innovative ways to frame health behaviour change, which are more in concordance with contemporary views of human behaviour and self-management of health problems. Novice as well as seasoned clinicians and researchers are urged to explore Reversal Theory and other emerging theories to identify the best model for framing their work.

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