Commentary

Role of Self Efficacy in Promoting Healthy Behavior: Smoking Cessation as an Example

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ABSTRACT

Self-efficacy is defined as an individual's perceived capability to perform a behavior for accomplishment of a desirable goal. Enhanced personal self-efficacy is associated with a positive self-concept and self-appraisal of personal control which develops through experiences of mastery and the anticipation of competent performance. This paper aims to analyze the role of self efficacy in promoting healthy behavior. A case scenario has been discussed to support the concept of self-efficacy in promoting healthy behavior taking smoking cessation as a case.

KEY WORDS: Self-efficacy, Healthy behavior, smoking cessation.

BACKGROUND

Health field experts are continuously striving to improve the quality of life. Health is considered as one of the major constituents of quality of life; where healthy behaviors prove to be aunique perspective contributing to the attainment of health. Hence, the great challenges, which are faced by health care personnel, are promoting healthy behaviors. Here, the notion of self-efficacy plays a crucial role as it affects an individual's decision and subsequent action for enhancing health. Self-efficacy is one of the most widely researched concepts with wide application in studies on health promotion activities. 1 A recent study showed that greater self-efficacy beliefs in function and control were associated with being more physically active, and were positively associated with greater physiological and psychological components of quality of life. In a related report, lower levels of depression were found to be associated with higher quality of life.² Drug addiction, sedentary life style or unhealthy eating habits, all require a substantial change or modification in behavior. Being health-care professional, we often question the noncompliance of health-promoting behaviors to which the most common answer is 'lack of awareness'. But if health care provider, despite being equipped with an in-depth knowledge of the hazards of smoking, never desires to change their behavior, then this makes one conclude that despite acquiring knowledge, they probably smoke due to failure of change at attitudinal level. Hence it is not only awareness, which transforms the behavior, but the presence of some other factors needed to bring the change. One of the important factors is self-efficacy, which is the key principle of health promotion. Behaviors can only be modified if a person possesses self-efficacy by believing that he/she would be able to achieve the desired goal. Moreover, development of personal resources is one of the key strategies of health promotion proposed by Ottawa charter that can be exercised exclusively through inculcating the self-efficacy belief. Changing beliefs does not quarantee behavior change; self-efficacy strategies enable people to gain control over their behavioural and its environmental, social and personal causes.3 It is an important concept because it motivates and directs an individual, the amount of efforts, flexibility and consistency required to perform a challenging job. Therefore, this concept should not be over-looked in the process of health promotion. Perceived selfefficacy may influence performance accomplishments, which in turn may exert a reciprocal influence on self-efficacy judgments. Moreover, self-efficacy theory provides a useful blueprint describing how selfefficacy beliefs can be enhanced.4

Defining Self-Efficacy

The term "Efficacy" is synonymous with the terms effective and efficacious, whereas "self" is defined as the identity of a person. The exact definition of selfefficacy is 'a conscious awareness of one's ability to be effective for control actions or outcomes'. Selfefficacy beliefs influence not only the courses of action pursued, but also the effort expended, perseverance in the face of difficulties, the nature of thought patterns and the amount of stress experienced in demanding situations.⁵ Self-efficacy beliefs are peoples' expectations about whether or not they will be able to master behaviour, and if so, how successful they will be? A high level of personal self-efficacy is associated with a positive self-concept and a self-appraisal of personal control, which develops through experiences of mastery and the anticipation of competent performance. A person with a positive self-efficacy expects to succeed and will engage in an activity until the task is accomplished. A person with low perception of selfefficacy anticipates failure and is less likely to attempt or carry on challenging activities. This may lead to a

negative self-concept and a feeling of incompetence or lack of control over the actions and outcomes. It is also argued that people/group of people may not accomplish the task beyond their capabilities just by believing they can. Therefore, in order to achieve a goal, a balance between self believes and skills or knowledge is necessarily required. A person with high self-efficacy believes that he/she is capable of accomplishing a behavior and is prepared to carry out the activity inspite of difficulties that may be encountered. On the other hand, unsuccessful experiences lead to "Inefficacious beliefs" that demotivates a person, who face challenges. Following case scenario would further examine this concept critically with its applicability in behaviour modification.

Case scenario

Mr. X had a habit of cigarette smoking. He smoked 10 to 15 cigarettes a day for twenty-three years, yet expresses a strong desire to discontinue. He is concerned about ending up like his grandfather who has debilitating lung cancer. He grew up in a family of tobacco users and most of his friends were also involved in this habit. The few friends who have attempted to guit smoking relapsed within a few weeks and moaned to Mr. X about the misery of abstinence. Feeling pressured by his family, Mr. X attended a smoking cessation class offered by local health services. On the eighth day of cessation, Mr. X attends a party and has three cigarettes, due to strong temptation. He did not interpret this as a failure but became more determined to succeed. He reassures himself that a small slip need not disrupt his final goal. Six months later, Mr. X was finally able to get rid of this unhealthy habit.

This scenario has strongly depicted the principle of self-efficacy, which is utilized by Pender Health Promotion Model as well. According to the model, a sense of self-efficacy is instilled after a person perceives few benefits and barriers for adapting behaviour in his/her past experiences, probably the successful ones. It would encourage the person to plan an action and engage in healthy behaviour. In addition to this, positive role modeling of the behavior and knowledge of health, impact of tobacco use and its cessation also plays a critical role in adapting healthy behavior. According to Kear M.8 'each individual's selfconcept and cognitive processing influences the judgment of the ability to effect a change in behavior and assurance to complete the attempted activity'. Yet, the notion of self-efficacy is tremendously important and crucial when the concern of changing behavior pertaining to health arises at individual, group or community level.

Attributes of Self-Efficacy

There are three main attributes of self-efficacy identi-

fied from literature, which are self-concept, control, and cognitive processes. Self-concept is defined as how people would look at themselves. There are positive and negative self concepts built with the pace of time as an individual interacts with the environment. Franken states that 'there is a great deal of research, which shows that the self-concept is perhaps the basis for all motivated behaviors'. 9 It is the self-concept that gives rise to a possible self, and it is the possible self which creates the motivation for adapting a new behavior. We develop and maintain our self-concept through the process of taking action and then reflecting on what we have done and what others tell us about our performance and behaviors. We reflect on what we did and could have done, against our own and those of others. We also make comparisons between our qualities and accomplishments with those of others.

Another attribute of self efficacy is control. There are two main features of control highlighted in the literature of self-efficacy, which are locus of control and self-actualization. Locus of control is an abstract notion, which explains that the individual believes in the occurrence of subsequent outcomes either by chance or by luck or directly due to personal effort or through internal locus of control. 10 Experts believe that a selfefficacy focus on one's belief in the ability to perform a desired behavior is related to internal locus of control. According to Suzanne Sarafino, 11 individual differences in personal control provide the reason why some people who are under stress get sick whereas others do not. They have proposed a broader array of personality characteristics called "hardiness", which differentiates people who do not get sick under stress. Hardiness includes three characteristics; (i) control, when people believe they can influence events in their lives that is sense of personal control; (ii) selfcommitment i.e. to involve in an event; and (iii) the challenge i.e. the tendency to view changes as incentives or opportunities for growth rather than threat to security. Like in the above-mentioned scenario of Mr. X, he did not get discouraged even after relapsing; rather, he took it as a challenge and believed that he had a control over the situation. These three components are inter-related and inter-dependent and thus any component can influence the other. Selfactualization is the second most important feature of control. The concept of self-actualization is evolved when successful experiences give rise to confidence. An individual who is unable to relieve his severe low back pain and a child, who cannot perform well in exams, describe a situation that can produce apathy and a person who does not have the sense of control will be unable to perform confidently. This shows that there is an association between personal control and

getting success. Being a health promoter, one could develop a sense of personal control by providing conducive and supportive environment and enhancing confidence in people for pertaining to health.

Third attribute of self-efficacy is Cognitive Process. Thought pattern is affected due to belief in selfefficacy, which ultimately boosts up an individual's decision and formulation of a particular goal. Literature reveals that self-efficacy is the major factor of any action taken in a given situation. Kear M⁸ cited that instinctual preservation of the self-concept underlies much of the motivation to act but thought processes mediate the actions. As a person speculates that he is able to competently adapt a behavior, the behavior is most likely to be attained with increasing confidence. For instance, Mr. X perceived his attempt as success and decided to take action against it and confidently achieve the goal of guitting the smoking. An example of cognition process would be an individual deciding to attend a smoking cessation session and decreasing the number of cigarette or pan per day. He had given a critical thought on the issue and taken an action towards achieving the goal, which is one of the most important stages in behavior modification.

Determinants of self-efficacy

Daily-life experiences give birth to self-efficacy and affect whether self-efficacy is perceived as high or low. Learning experiences, either through modeling or ongoing feedback on a particular behavior influence efficacy expectations that generate knowledge and interest in repeating the action. 'Mastery experiences' instill a sense of confidence and ensures a progression of a positive sense of self-efficacy; whereas failure may impact negatively on one's self-efficacy. Confidence in personal competence influences an individual's decision to attempt or continue with a new activity. This is how an individual or group perceive to be empowered. Here the concept of empowerment emerges, which certainly plays a pivotal role in promoting sustainable health promoting behaviour. Probably, self-efficacy leads to empowerment; the concept of empowerment will ultimately impact decision-making and thus generate aspiration to undertake relevant action. Therefore, it can be affirmed that without self-efficacy empowerment process would take longer in implementation or perhaps hardly taken place. For instance, a smoker who successfully guits smoking would then plan to reduce weight. He probably engages in daily exercise programs to reach his goal. This engagement in new activity happened to occur due to his past successful experience pertaining to health modification as well as previous knowledge about the behaviour. This would probably breed a sense of accomplishment, which finally leads to health promotion. Therefore, being health promoter one must keep determinants of self-efficacy on top priority so that sustainable health promotion can be achieved. Martin et al in a recent study suggest that there is a value in understanding self-efficacy in the context of other leading health theories. ¹²

Ways to enhance self-efficacy

Informal discussion with various respondents and literature search revealed the following ways to enhance self-efficacy. Timely and effective facilitation, development of personnel skills such as assertiveness i.e. saying "no", empowerment, promotion of positive self concept, positive role modeling, mastering over relevant skills, social persuasion or feedback from people are the ways of strengthening peoples' beliefs that they posses what is considered necessary to succeed.

It is very important for the health promoters to integrate following principles into practice to implement above mentioned strategies of self-efficacy. Respect the way people choose to live their lives, involve people in the planning and delivery of services, think of the whole person (holistic approach), work "with" people rather than "for" people and treat people fairly.

Self concept based model: Leonard H has introduced following approaches and inducement systems that facilitates in the development of self efficacy which in the long run leads to motivation.¹³

Implications of self-efficacy

As the notion of self-efficacy is substantial in human psychology, its implication in nursing practice, education, administration and research is apparent. In hospital settings, recovery from the disease is fastened if patient perceives that he/she could better cope with compliance and preventive measures. According to Pender's health promotion theory, she stresses on this important variable of self-efficacy for promoting health. Patient education activities that enhance self-concept promote a desire for competence and ultimately lead to self-actualizing tendencies.

As far as education setting is concerned, students can be empowered by creating the perception of efficacy. Teachers' ongoing feedback and facilitation along with other necessary strategies can develop the sense of efficacy. Research suggests that teachers can strengthen self-efficacy by linking new work to recent student successes, teaching the needed learning strategies, reinforcing effort and persistence, stressing peer learning, and helping students to identify or create personal goals.¹⁴

In research entity, the role of a self-efficacy is also very applicable. Researchers develop a research proposal; this attempt enhances their efficacy whereby feasibility of research study and other operational plan is foreseen, which eventually affects their self-efficacy to perform that study. Likewise, community as whole,

who acquire the similar goals and needs, may collectively develop self-efficacy and a positive change can bring into the reality. School health promotion can be taken as one of the live examples. Through combining this concept along with empowerment a sustainable health promoting environment can be promoted jointly.

CONCLUSION

Self-efficacy is one of the important components leading to positive human behaviour. With the facilitation of multiple factors such as empowerment, positive role modeling and social interactive feedback; the goal of health promotion can be achieved. Moreover, inducement system would facilitate health-promoting behaviour at operational level. Proponents concluded that self-efficacy has proven to be more consistent predictor of behavioral outcomes than having any other motivational construct. "The growth of self-efficacy does not end during youth, but continues to evolve throughout life as people acquire new skills, experiences, and understanding." 15

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REFERENCES

- Kroll T, Kehn M, Ho PS, Groah S. The SCI Exercise Self-Efficacy Scale (ESES): development and psychometric properties. Int J Behav Nutr Phys Act 2007;4:34.
- 2. Motl RW, Snook EM. Physical activity, self-efficacy, and quality of life in multiple sclerosis. Ann Behav Med 2008;35(1):111-5.
- Sneihotta FF. Towards a theory of intentional behavior change: Plans, planning and self-regulation. British Journal of Health Psychology 2009;14:261-73.
- 4. Barlow J. Self-efficacy in the context of rehabilitation. App Res Centre Health Lifestyle Interven Coventry University. Available from http://cirrie.buffalo.edu/encyclopedia/pdf/en/self-efficacy in the context of rehabilitation.pdf
- Bandura A. Self-efficacy: toward a unifying theory of behavioral change. Psychol Rev 1977;84 (2):191-215.
- 6. Prochaska JO, Velicer WF. The Transtheoretical Model of health behavior change. Am J Health Promotion 1997;12:38-48.
- 7. Sarafino S. Health psychology. Singapore: John

- Wiley: 1994.
- 8. Papilla E, Olds W. Human development. Toronto: McGraw Hill; 2001.
- 9. Schwarzer R, editor. Self-efficacy: Thought control of action. Washington DC: Hemisphere;1992.
- 10. Bandura A. Social cognitive theory: An agentic perspective. Ann Rev Psychol 2001;52:1-26.
- 11. Pajares F, Urdan T. Self efficacy believes in adolescents. Greenwich: CT; 2005.
- 12. Bandura. Self-efficacy: the exercise of control. New York: WH Freeman and Company; 1986.
- 13. Dundas-Wolfenden K. A brief exploration of the self- efficacy concept and its implication in the recovery process.[online] Available at: http:// www.coursework.info/AS_and_A_Level/ Healthcare/A_brief_exploration_of_the_self-_efficac_L323.html
- 14. Keller C, Fleury J, Gregor-Holt N, Thompson T. Predictive ability of social cognitive theory in exercise research: an integrated literature review. Online J Knowl Synth Nurs. 1999 Jan 5;6:2.
- Ajzen P. From intention to action: A theory of planned behavior. In: Kuhl J, Beckman J, editors. Action-Control: From Cognition to Behavior. Heidelberg: Springer; 1985. pp. 11-39.
- Grizzell J. Behavior Change Theories and Models. [online] Available at http://www.scribd.com/doc/2600125/Behavior-Change-Theories-and-Models.
- 17. Gordon JC. Beyond Knowledge: Guidelines for Effective Health Promotion Messages. [online] J Extension 2002;40(6): Available at http://www.joe.org/joe/2002december/a7.php
- Pajares F. Current Directions in Self-efficacy Research. In: Maehr M, Pintrich PR, editors. Advances in motivation and achievement. Volume 10. Greenwich, CT: JAI Press; pp. 1-49
- Ames C. Classrooms: Goals, structures, and student motivation. J Educational Psychol 1992; (84):261-71.
- 20. Ashton PT, Webb RB, editors. Making a difference: Teachers' sense of efficacy and student achievement. New York: Longman; 1986.
- 21. Atkinson JW. Motivational determinants of risk-taking behavior. Psychol Rev 2000;64:359-72.
- Neil J. Definitions of various self constructs: Selfesteem, self-efficacy, self-confidence & selfconcept.[online] http://wilderdom.com/self/
- 23. Yokokawa Y, Kai I, Nakajima T. Development of a "self efficacy for health promotion scale" in community-dwelling elderly. Nippon Koshu Eisei Zasshi 1999;46(2):103-12.
- 24. Martin MY, Person SD, Kratt P, Prayor-Patterson H, Kim Y, Salas M, et al. Relationship of health behavior theories with self-efficacy among insuffi-

- ciently active hypertensive African-American women. Patient Educ Couns 2008;72(1):137-45.
- 25. Leonard NH, Beauvais LL, Scholl R. A self concept-based model of work motivation. Acad Manag J 1995; Special Volume/Issue, 322-42.
- 26. Pintrich P, Schunk D, editors. The Role of Expectancy and Self-Efficacy Beliefs. Motivation in Edu-
- cation: Theory, Research & Applications. Englewood Cliffs, NJ: Prentice-Hall; 1996.
- 27. Baron R, Bollinger MM. Exporting social psychology: effects of attractiveness on perceptions of entrepreneurs, their ideas for new products, and their financial success. J App Soc Psychol 2006;36:467-92.



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