

Self-Efficacy: A Concept Analysis

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TOPIC. *Concept analysis and self-efficacy.*

PURPOSE. *This paper provides an in-depth analysis of the concept self-efficacy through the use of Rodger's model.*

SOURCES. *Published research.*

CONCLUSION. *Self-efficacy beliefs influence how people think, feel, motivate themselves, and act. Self-efficacy is concerned about the perception or judgment of being able to accomplish a specific goal and cannot be sensed globally. In order to gain a sense of self-efficacy, a person can complete a skill successfully, observe someone else doing a task successfully, acquire positive feedback about completing a task, or rely on physiological cues.*

Search terms: *Concept analysis, motivation, self-confidence, self-efficacy*

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Introduction

Concepts are defined as "a word or phrase that summarizes ideas, observations and experiences. They are tools that provide mental images that can facilitate communication about and understanding of phenomena" (Fawcett, 2005, p. 4). Concept development is crucial to the overall process of knowledge development in nursing. The naming and explication of concepts influence what people notice and think (Meleis, 2007). Concept analysis is a strategy to further develop previously defined concepts and "advance them to the next level of development" (Meleis, 2007, p. 169). The analysis helps to identify the meaning of the concept and to elucidate the ambiguity surrounding it (Rodgers, 1989). The goal of this process is to provide a comprehensible meaning of the concept for future use in the practice or research field (Meleis). This article will provide an in-depth analysis of the concept self-efficacy through the use of Rodger's model. Self-efficacy is defined, surrogate terms are acknowledged, and attributes are identified. The antecedents and consequences of self-efficacy are recognized and related terms are described. A model case of the concept is discussed and the implication for nursing practice, leadership, education, and research is explored.

Concept Analysis Frameworks

Several strategies surrounding concept analysis are discussed in the literature. The Wilson (1963/1969) method identifies 11 steps to utilize in concept analysis. Variations of this method were discussed by Rodgers (1989), Chinn and Kramer (1991), and

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Walker and Avant (2005). This paper will utilize Rodger's model to analyze the self-efficacy concept. Her method of analysis includes the following steps: define the concept, explain surrogate terms, describe concept attributes, identify the antecedents and consequences of the concept, and discuss a model case of the concept.

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The Method of Analysis of Self-Efficacy

Defining Self-Efficacy

The first step in Rodger's concept analysis model is to identify and define the concept of interest. The concept of interest is self-efficacy. The history of self-efficacy begins within Bandura's (1977) social learning theory that was renamed social cognitive theory in 1986. One of Bandura's major concepts in his theory is self-efficacy. According to theory and research (Bandura, 1995), self-efficacy makes a difference in how people feel, think, behave, and motivate themselves. In terms of feeling, a low sense of self-efficacy is associated

with stress, depression, anxiety, and helplessness. Such individuals also have low self-esteem and become pessimistic about their accomplishments and personal development. In terms of thinking, a strong sense of efficacy facilitates cognitive processes and performance in a variety of settings, including quality of decision-making and academic achievement. When it comes to behaving, self-efficacy can influence people's choice of activities. Self-efficacy levels can increase or hamper motivation. People with high self-efficacy approach difficult tasks as challenges and do not try to avoid them. "People's self-efficacy beliefs determine their level of motivation, as reflected in how much effort they will exert in an endeavor and how long they will persevere in the face of obstacles" (Bandura, 1989, p. 1176).

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Concept Significance

Bandura (1989) explains the importance of self-efficacy as beliefs that function as "an important set of proximal determinants of human motivation, affect, and action" (p. 1175). These beliefs constitute a form of action through motivational, cognitive, and affective intervening processes. An example of a cognitive process pertains to setting personal goals. The higher the level of perceived self-efficacy, the higher the levels of goals people set for themselves, which leads to a higher level of commitment to the goals.

Another example of self-efficacy significance relates to an experiment by Collins (1982, cited in Bandura, 1986, p. 391). Collins divided children into two groups based on their mathematical ability. He also obtained the students' opinions of their math skills. The results showed the students in the higher-level group outperformed those in the lower-level group. Interestingly, perceived self-efficacy played a role in these results. "Within each ability group, the children who believed they were good at math solved more problems, chose to work on more of the problems they failed and displayed a more positive attitude toward mathematics" (Crain, 2000, p. 203).

On the contrary, there is the possibility to have too high an estimate of one's beliefs, which could cause physical injury. For example, a person may overestimate the ability to run a marathon but become injured because of lack of proper training. Bandura believes it is better to overestimate capabilities and thoughts in order to succeed.

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Surrogate Terms

Surrogate terms are words used interchangeably to express the concept of self-efficacy. The term *perceived self-efficacy* has been substituted in the literature to represent self-efficacy (Bandura, 1997a; Lenz & Shortridge-Baggett, 2002, p. 10; Schunk, 1981). The definition of the word *perceives* is to attain awareness or understanding of or to become aware of through senses (*Merriam-Webster's Online Dictionary*, 2006). *Self-efficacy* is defined as a person's own judgment of capabilities to perform a certain activity in order to attain a certain outcome. The term *perceive* is implied in the definition of *self-efficacy* and does not change the meaning.

Self is the identity of a person while efficacy is defined as the power to produce an effect. Synonyms for efficacy include effectiveness, efficaciousness, and productiveness (*Merriam-Webster's Online Dictionary*, 2006). The combination of these meanings implies a conscious awareness of one's ability to be effective and to control actions.

Attributes of Self-Efficacy

Defining attributes are the key components of the concept that consistently appear when the concept is defined and help clarify the concept (Rodgers, 1989).

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Cognitive Processes

Bandura (1989) asserts that "human behavior is regulated by forethought embodying cognized goals, and personal goal setting is influenced by self-appraisal of capabilities (p. 1175). People with high levels of self-efficacy are more likely to set higher goals, commit to challenges that are more difficult, and strive to meet those goals. They achieve the goals by visualizing successful outcomes instead of dwelling on the potential negative consequences. "A major function of thought is to enable people to predict the occurrence of events and to create the means for exercising control over those that affect their daily lives" (p. 1176). This is a key component of self-efficacy.

Affective Processes

"People's belief in their capabilities affects how much stress and depression they experience in threatening or taxing situations, as well as their level of motivation" (Bandura, 1989, p. 1177). The emotional reactions can affect action both directly and indirectly by changing the thought process and is dependent on how well people think they can cope. People who believe they can manage threats are less disturbed by them. They can lower their stress and anxiety by exercising control over the potential threats (Bandura, 1995). This is another key component of self-efficacy.

Locus of Control

Locus of control "refers to an individual's perception about the underlying main causes of events in his/her life" (Neill, 2006, p. 1). People believe that destiny is

controlled by either external forces, such as fate or luck, or by internal forces, such as personal decisions or efforts (Neill). Self-efficacy focuses on a person's belief in the ability to perform a specified task. A person with a high-level of self-efficacy believes in the utilization of cognitive and affective processes in order to obtain a desired outcome. This is an example of believing in an internal locus of control.

Antecedents of Self-Efficacy

Social experiences precede self-efficacy and determine whether someone has high or low levels of self-efficacy. People do not carry out everything they learn despite having the ability to enact the behavior. "Once behavior is learned, the regulation of the behavior relies on motivational process of reinforcement" (Ziegler, 2005, p. 36). Mastery experiences foster a feeling of confidence and an eventual feeling of self-efficacy, while failure in tasks fosters a low level of self-efficacy. When confidence is gained, it influences the person's decision to attempt a new activity.

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Expectations of self-efficacy are derived from four principle sources of information that Bandura labels self-efficacy appraisals. Bandura defines self-efficacy appraisals as self-reflections on personal performance. These appraisals are closely linked to levels of motivation.

People work harder when they believe they are good at a task. Bandura (1977) asserts that "expectations of personal efficacy are derived from four key sources of information: performance accomplishments, vicarious experience, verbal persuasion and physiological cues" (p. 191). People use this information to judge their level of self-efficacy. These are the four antecedents of self-efficacy.

Performance accomplishment relates to being successful at tasks. When this occurs, the feeling of efficacy rises. This is "most influential source of knowledge" (Crain, 2000, p. 203). For example, when a person is repeatedly successful at a task, self-efficacy increases. However, if failure happens, the sense of self-efficacy declines. Once a person continues to be successful, a robust feeling of self-efficacy develops and is less troubled by minor setbacks. Any failures for this person are viewed as lack of effort and another attempt is made to become successful (Crain).

Another source of information for self-efficacy expectations are vicarious experiences. These experiences happen as people watch others do a task and feel confident that they can complete the same task successfully with favorable outcomes. This is especially true if the observer thinks the model has the same abilities.

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Verbal persuasion refers to someone convincing another person that they are capable of being successful. These can also be referred to as "pep talks." People can convince others that they can be successful at a task. This encouragement is helpful because "success usually depends more upon the effort we put into a task than upon any inherent ability" (Crain, 2000, p. 203).

Finally, at times abilities are partly judged based on physiological cues. These cues consist of bodily signs, such as anxiety and tension. Different people interpret those cues differently, which may affect the outcome of the task (Crain, 2000; Ziegler, 2005).

In summary, in order to gain a sense of self-efficacy, a person can complete a skill successfully, observe someone else doing a task successfully, acquire positive feedback about completing a task, or rely on physiological cues. These sources of information must happen before self-efficacy can be sensed.

Consequences of Self-Efficacy

Consequences are events or happenings that follow the concept self-efficacy (Rodgers, 1989). "People's beliefs in their abilities to perform specific behaviors is an important predictor of how they are functioning in terms of choice behavior, effort expenditure, thought patterns and emotional reactions" (Lenz & Shortridge-Baggett, 2002, p. 14). In short, self-efficacy beliefs will influence how people think, feel, motivate themselves, and act.

The consequences of a low level of self-efficacy are applied to the population of people with the diagnosis of heart failure (HF). Decisions involving selection of activities are influenced by judgments of self-efficacy. For example, people with HF and a low sense of self-efficacy in a medical management program may avoid complex responsibilities, such as sodium and

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water restrictions, daily weights, and proper medication administration. They may have a lower motivation level because they think they cannot attain the goal of self-management of their HF condition. A low self-efficacy level may also lead the HF person to give up and not follow a sodium-restricted diet. The thought patterns may also undermine the overall outcome of this person. The person may dwell on all of the complications that exist with HF, including multiple hospital admissions due to exacerbations. Finally, the HF patient with a low self-efficacy may also feel a higher level of stress and depression. These are the potential consequences of a person with HF and a low-level of self-efficacy.

Related concepts

Related concepts are terms that show a relationship to self-efficacy but have a different set of defining attributes. The concepts that have a connection to self-efficacy are self-esteem and self-confidence. Self-esteem is a related concept but it is not the same as self-efficacy. The meaning of self-esteem is a "realistic respect for a favorable impression of oneself" (*Merriam-Webster's Online Dictionary*, 2006). Self-esteem refers to a general feeling of self-worth or self-value. Self-efficacy is not concerned with the global perspective of what a person thinks about oneself but rather self-efficacy is concerned about the perception or judgment of being able to accomplish a specific goal. These two concepts clearly have different attributes.

The concept confidence as defined by Bandura (1982) is the "perception that one is competent and capable of fulfilling particular expectations," such as being capable of meeting the expectations of a particular role. *Self-confidence* is defined as "confidence in oneself or one's own abilities" (*Merriam-Webster's Online Dictionary*, 2007). It is a learned concept that develops over time through continual reinforcement of positive behaviors (Copeland, 1990). Self-confidence is the belief that "one knows how to do something and has the ability to make things happen" (Ferguson, 1996).

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Self-efficacy is not concerned with specific skills one has but rather with the judgments of what a person can do with those specific skills. Self-efficacy is related to a specific situation in a certain field and cannot be sensed globally. For example, a sprinter may feel competence in regards to running short distances but not certain about running longer distances. Therefore, the person has a high level of self-efficacy when running shorter distances but a lower level when running long distances. Self-efficacy is related to a specific situation

and that is different from the terms *self-esteem* and *self-confidence*. Self-esteem and self-confidence are terms that are personal characteristics and have a stable influence on a person's behavior. An individual may display high or low levels of self-confidence, but self-efficacy is not determined in this general sense. On the contrary, self-efficacy is a temporary and easy-to-influence characteristic that is solely situation or task-oriented and not sensed globally (Lenz & Shortridge-Baggett, 2002).

The key to promoting self-efficacy is to help patients to learn new behaviors through modeling or learning to modify existing maladaptive behavior through changing the anticipated reinforcement (Ziegler, 2005). Behavior is learned mostly through observational learning and is taught through modeling (Bandura, 1997b).

Model Case of Self-Efficacy

A model case of the self-efficacy concept shows proper usage. The described case utilizes all of the important attributes. The model case for this paper is a research study by Schunk (1981), who studied children with low arithmetic achievement to see if perceived self-efficacy was an accurate predictor of arithmetic performance. The children were separated into two groups and received either modeling of division operations or didactic instruction followed by a practice

period. Results showed that children who had prior mathematical difficulties experienced an enhanced sense of efficacy when they received interventions such as problem-solving principles, practice applying the principles, corrective feedback, and self-directed mastery. The control group of children showed no significant increase in levels of self-efficacy and became less persistent at solving problems. This research also supported the hypothesis that children's self-perceptions of their capabilities have a significant effect on following achievements.

This model case shows the three major attributes of self-efficacy: cognitive and affective processes and locus of control. Problem-solving principles and practice with math problems are examples of cognitive processes. The children also received corrective feedback that ultimately affected their affective process. Through the interventions the children received in the study, it can be speculated that the children felt an internal locus of control.

Implications for Nursing Practice, Education, Leadership, and Research

The concept self-efficacy has implications for nursing practice. The key to promoting self-efficacy is to help patients to learn new behaviors through modeling or learning to modify existing maladaptive behavior through changing the anticipated reinforcement (Ziegler, 2005). Behavior is learned mostly through observational learning and is taught through modeling (Bandura, 1997b). For example, a person could be told the steps to adhere to when performing a subcutaneous injection, but a demonstration is necessary to show the actual performance of the skill. Modification of behavior involves altering the patient's beliefs regarding the strength of self-efficacy. Interventions serve as the means to facilitate this modified behavior. Personal accomplishments involve practicing and prior experiences of a situation or task and are a source of self-efficacy. Practicing is the most important source of self-efficacy because it relies on actual

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personal experiences. The success of the experiences enhances self-efficacy. This means the patient needs to practice the skill of injections to feel a sense of efficacy (Ziegler). This is an example of an antecedent of the self-efficacy concept that Bandura coins performance accomplishment and relates to being successful at tasks.

The same interventions also correspond to the implications of self-efficacy in the field of education. Students rely on theory instructions and clinical experiences to gain nursing knowledge and a feeling of self-efficacy. These examples are also known as personal accomplishments.

The same interventions also correspond to the implications of self-efficacy in the field of education. Students rely on theory instructions and clinical experiences to gain nursing knowledge and a feeling of self-efficacy. These examples are also known as personal accomplishments. Students also utilize Bandura's concept of vicarious experiences or observations of others as another source of information for self-efficacy. This is another antecedent to self-efficacy. While on clinical the nursing student observes other nurses and instructors perform certain procedures successfully. Through this observation and additional dialogue, the student practices the observed skills. The instructor and student dialogue can be classified as verbal persuasion. It is the most often used source of self-efficacy and frequently used by clinical instructors. Through

instructions, suggestions, and advice, instructors try to convince students that they can succeed (Ziegler, 2005). Vicarious experiences and verbal persuasion are two other sources of information that help students develop a sense of self-efficacy with certain situations.

Bandura also believes that it is important for educators to have high levels of self-efficacy. Educators who have a high level of instructional efficacy function on the belief that difficult students are teachable through extra effort and appropriate techniques. They also believe that they can procure family support and overcome negative community influences (Bandura, 1997b).

Bandura also believes that it is important for educators to have high levels of self-efficacy. Educators who have a high level of instructional efficacy function on the belief that difficult students are teachable through extra effort and appropriate techniques. They also believe that they can procure family support and overcome negative community influences (Bandura, 1997b). In addition, when educators believe their instruction will have an effect on the student, their belief serves as a model for their students (Crain, 2000). On the contrary, educators with low instructional

efficacy think there is little they can do to help students if they appear unmotivated (Bandura).

“Bandura’s social cognitive theory has also helped guide nursing research related to behavior change” (Ziegler, 2005, p. 52). Lenz and Shortridge-Baggett (2002) cite extensive reference lists validating the amount of nursing research related to self-efficacy. Nurse researchers have “focused on self-efficacy measurement and outcome expectations and evaluating the effectiveness of intervention strategies designed to change problematic health behaviors” (Ziegler, p. 52). Health behaviors researched include health promotion and chronic illness, such as breast-feeding, chemical dependency, weight loss, smoking cessation, and diabetes education. Various populations have been studied, such as children, adolescents, adults, as well as different cultural and ethnic groups. Studies that evaluate the impact of both self-efficacy and outcome expectations on behavioral change are necessary. Research is also needed to test interventions that affect self-efficacy levels (Ziegler).

“Self-efficacy is the most important predictor of change in behavior” (Lenz & Shortridge-Baggett, 2002).

Self-efficacy is an important concept because it ultimately affects behavior and outcomes. As a leader of a company or a leader of a group of patients, it is important to affect certain behaviors and obtain positive outcomes. “Self-efficacy is the most important predictor of change in behavior” (Lenz & Shortridge-Baggett, 2002, p. 63). This concept has obvious important implications for all leaders, especially those in charge of developing healthcare reform policies.

Conclusion

The concept development process is an important part of the generation of nursing knowledge. By defining, analyzing, and researching concepts such as self-efficacy, nursing can provide valuable knowledge to the discipline. This will ultimately be valuable as nurses continue to build an evidence-based practice. Self-efficacy is a concept that influences how people think, feel, motivate themselves, and act. “People’s self-efficacy beliefs determine their level of motivation, as reflected in how much effort they will exert in an endeavor and how long they will persevere in the face of obstacles” (Bandura, 1989, p.1176). This is an imperative concept for people to acquire due to the adversity and struggles they encounter.

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