
Concept Analysis of Risk Behavior in the Context of Adolescent Development

Alice L. March
University of Alabama
Tuscaloosa, AL
almarch@bama.ua.edu



Concept Analysis of Risk Behavior in the Context of Adolescent Development

Alice L. March
University of Alabama

Abstract: The term risk behavior is a concept that has been used in the literature for many years, particularly as it relates to adolescent developmental issues and adolescent health behaviors. Currently the literature specific to the conceptual analysis of risk behavior is limited and relates in general to adults, rather than youths. The purpose of this investigation was to analyze not only the concept of risk behavior, but also its specific relationship to adolescents. Previous conceptual analyses have not considered how those concepts may be affected by the psychosocial development of adolescents. Therefore the specific aim of this analysis is to clarify the concept of risk behavior as it relates to youths. Following the process outlined by Walker and Avant (1995) the critical attributes, antecedents, consequences, and empirical referents for the concept of risk behavior are presented in this article.

Introduction

The term risk behavior is a concept that has been used in the literature for many years, particularly as it relates to adolescent developmental issues and adolescent health behaviors. Walker and Avant (1995) note that concepts are the building blocks of theory and that they change over time, periodically requiring up to date and in depth analyses in order to discover not only their historic uses, but also their current contextual meanings. This allows researchers the opportunity to develop accurate operational definitions of the variables specifically related to their studies. Concepts that are well delineated can then be investigated in a number of different studies and potentially used to explore group differences and responses to interventions that otherwise might not be compared.

The purpose of this investigation is to analyze not only the concept of risk behavior, but also its relationship to adolescents. Full discovery of the meanings and uses of the concept adds to the knowledge base of information about youths, as well as assists in the identification of specific areas to consider for newly developed interventions. Clarification of the concept helps to focus

the search for or development of appropriate tools to operationalize the concept while providing continued conceptual consistency (Walker and Avant, 1995).

Currently the literature specific to the conceptual analysis of risk behavior is limited. A search of the CINAHL data base yielded only five articles presenting concept analyses of risk and none that analyzed the concept of behavior or the combined term of risk behavior. Of those articles, three examined a specific type of risk, including constructive risk (Waring, 2000), forensic risk (Kettles, 2004), and the risk of developing a disease, such as cancer (Jacobs, 2000). The two remaining articles presented discussions of careful analyses of risk (Joseph, 1993; Shattell, 2004).

It was noted that the authors did not specifically relate their findings to the psychosocial development of adolescents. Due to the lack of an in-depth investigation of the conceptual basis of risk behaviors and the conflicting issues of the previous analyses of risk, the aim of this concept analysis is to clarify the concept as it relates to adolescents.

Consistent with the premise by Walker and Avant (1995) that concepts change over time, this author posits that risk behaviors are an excellent example of how historical issues and context influence the use of words in the language of disciplines such as nursing, social sciences, and education. An example of this variation of change in usage of a concept over time is clearly illustrated with regard to risk behaviors. The use of tobacco in the 1950's was not considered a risk behavior, but today it is a known etiological factor for lung cancer and therefore tobacco use is now referred to as a risk behavior. The contextual meaning is also influenced by such factors as age, as in the case of adolescent alcohol use, or lack of condom use in unmarried individuals.

The actual behaviors, however only illustrate the concept, rather than define it. Nursing research cites examples of risk behaviors such as binge drinking, drinking and driving, speeding, illicit drug use, tobacco use, unhealthy dietary practices, physical inactivity, early sexual debut, other risky sexually practices, and behaviors that contribute to intentional and unintentional injury, such as weapon carrying. Yet, those research papers do not define the concept.

In the review of over fifty nursing research studies with titles which included the phrase risk, risk behaviors, or words corresponding to any actions currently considered risky, only one definition of risk behavior was found. Spirito, Jelalian, Rasile, Rohrbeck, & Vinnick (2000) define risk behavior as volitional with no potential for harm, or the possible consequence of actual harm to self or others. Findings from the previously mentioned concept analyses of risk are reviewed throughout the current discussion as they apply. Following the process outlined by Walker and Avant (1995) the critical or defining attributes, antecedents, consequences, and empirical referents for the concept of risk behavior are presented in this article.

The Process of Concept Analysis

This paper presents an analysis of the concept, risk behavior, using the approach outlined by Walker & Avant (1995). They state that concept analysis occurs in eight steps, which may transpire in order or simultaneously. The eight steps addressed in this paper include:

- Select a concept
- Determine the aims or purposes
- Identify all the uses of that concept

- Determine defining or critical attributes
- Construct a model case
- Construct borderline, related, contrary, invented, and illegitimate cases
- Identify antecedents and consequences
- Define empirical referents

Identifying the Uses of the Term Risk

Identification of the attributes of a concept can be discovered through a full examination of all the uses of that term (Walker & Avant, 1995). The etymology of risk is *risqué* from the French language and *risco* from Italian. The word can be found used in English as early as 1661 (Merriam-Webster Online Language Center, 2008). Risk as a noun, is defined as the possibility of harm, loss, or danger (*American Heritage Dictionary*, 1983; Merriam-Webster Online Language Center, 2008).

Webster's New World Dictionary (1972) defines risk as a chance of injury, or the possibility of losing or failing. Merriam-Webster Online Language Center (2008) adds additional definitions of this noun as a person or event that creates or suggests a hazard, the degree of probability of a loss as related to insurance issues, and the chance that an investment will result in a loss of value, rather than a gain.

Risk is also a transitive verb. The meaning of a transitive verb is incomplete without a specific relationship to a direct object, in this case behavior. The transitive verb definitions of risk include; (1) to expose to the chance of loss, (2) to incur the risk of, or put in danger, and (3) to expose to hazard or danger (*American Heritage Dictionary*, 1983; Merriam-Webster Online Language Center, 2008; *Webster's New World Dictionary*, 1972).

Jacobs (2000) who analyzed risk as related to the development of cancer, concludes that the word risk has changed from a neutral concept originally used as a mathematical probability of an event occurring. In the current nursing and medical science fields risk refers to a combination of probability and the expectation of an adverse or dangerous incident.

Another author, combined the term constructive with risk. Waring (2000) notes that risk does not always result in injury or harm and in fact some risk behaviors may result in positive outcomes. For instance removing restraints and allowing elders to ambulate, although a calculated risk may increase self esteem and mobility in institutionalized elderly persons.

Shattell (2004) presents the results of an extensive literature review of nursing, sociology, psychology, philosophy, ethics, business and industry, art, architecture, education, linguistics, statistics, economics, religion, and the lay media. The results include:

- Danger or potential for harm, injury, or loss
- Risk in relation to decision making, such as a risk taker or risk assessment
- Danger to or loss of property
- Insurance risks of people and property
- Forecasting or the possibility of financial loss: for example risk-benefit analysis
- Financial gain related to high risk activity

Identifying the Uses of the Term Behavior

The etymology of behavior is an alteration of the Middle English term *behaven* and can be found in use in the 15th century (Merriam-Webster Online Language Center, 2008). Behavior, a noun, is defined as; (1) deportment or demeanor, (2) the way a person or thing acts, reacts, or functions, (3) anything that an organism does involving action and response to stimulation, and (4) the manner of conducting oneself (*American Heritage Dictionary*, 1983; Merriam-Webster Online Language Center, 2008; *Webster's New World Dictionary*, 1972).

Although behavior is a noun, due to its definition of action it may function more like a verb. The term behavior must be modified in order for it to be meaningful. The term risk behavior uses the transitive verb risk to modify the direct object noun behavior, in order to produce the concept in which there is an action involving danger or the possibility of harm.

Risk is subjective and many other terms are used to modify the word risk or the word behavior. Behavior itself modifies the verb form of risk. Examples of other risk terms include: absolute risk, acceptable risk, relative risk, risk assessment or evaluation, risk factor, risk management, risk aversion, risk capital, risk money, and risk profile. Terms used to modify behavior include: behavior pattern, behavior cycle, behavior study, behavior segment, behavior therapy (*Concise Oxford English Dictionary*, 2006).

Defining or Critical Attributes

Determining the defining attributes takes place after the researcher has examined all of the possible uses of the concept. Those characteristics that are repeated multiple times are the defining attributes and are the ideas most frequently associated with that concept (Walker & Avant, 1995). After extensive review of the definitions and the use of the terms risk and behavior in the literature, this author posits that the three defining attributes of risk behavior are; (1) hazard, (2) action, and (3) possibility.

Kettles (2004) lists the attributes of forensic risk as danger in relation to the cultural system, probability measurement, behavior, and responsibility to protect the public. Shattell (2004) lists the defining attributes of risk as the chance or possibility of harm, and cognitive recognition involving thought and perception, which results in a decision making process. However, a better placement of cognition and decision making in the context of risk *behavior* would be as antecedents.

In each instance of risk behavior a hazard is present that is clearly dangerous in nature. This is the risk portion of the concept risk behavior. Without the peril, nothing bad would be able to happen. Once the hazard is present the person must act. This is the behavior part of the term. If no action takes place, the person is safe from the hazard. Finally a possibility must exist for the hazard to actually occur. This is the part that ties risk and behavior together into a concept that signifies that the potential to act must be at hand, when a hazard is present.

Risk behaviors are not consistent with actions taken in situations where imminent danger cannot be avoided, or when the risk is unknown or not clear, because these circumstances remove the option of a decision, which is an antecedent to the concept. Behaviors that occur without the possibility of hazard are not risky in nature. Finally, when a hazard is present and the possibility of harm exists, but no action is taken, a risk behavior has not occurred.

Model Case

The model case is a real life example and includes all the critical attributes of the concept (Walker & Avant, 1995). Within the context of adolescent development the model case involves adolescents who arrive at a party where alcohol is present.

Tom and Marty drove eight miles into woods to be with their friends that night, in order to enjoy time around the campfire without any adults. No alcohol was mentioned before the gathering, but Steve brought alcohol. Tom and Marty took a short walk and talked about what to do. They decided that it might be OK to drink just a few and then leave. As other people arrived, so did more alcohol. When the time came to leave, neither Tom nor Marty were sure that they really should drive, but they needed to get home by curfew and everyone else was staying. Tom felt sure the he could probably get home without a problem, so he drove.

This case contains all of the defining attributes of risk behavior. The (1) hazard present is alcohol. The (2) action is drinking and driving, and the (3) possibility exists that an accident may occur due to impaired ability of the driver, resulting in injury or death.

Other Cases

Development of borderline, related, contrary, invented, and illegitimate cases help to define the concept and determine what aspects don't fit within the concept. A borderline case is an example of the concept which is missing one or more of the attributes (Walker & Avant, 1995).

Sue and Dave arrive at a party that was expected to have large quantities of illicit drugs. Both were looking forward to the thrill of getting high. However, the supplier did not come and everyone went home disappointed.

In this example action is considered, but not carried out. The hazard is expected, but is missing. Once the hazard is removed there is no possibility of harm left.

The related case does not contain the critical attributes, but must be examined closely to determine which attribute is missing (Walker & Avant, 1995).

Jill and Jack arrived at a party where their friends are in separate rooms having sex. Jack and Jill did not bring any condoms, but they went into one of the private rooms and petted heavily for over an hour before leaving.

At first this appears to be model case. The hazard of unprotected intercourse and the possibility of resulting pregnancy are present, but the action (intercourse) does not take place.

The contrary case is an example of what the concept is not (Walker & Avant, 1995).

Pete and Meg went to an after prom party where no alcohol was served. Chaperones were present all night to ensure that no persons with alcohol or illicit drugs were admitted to the party. There were no private spots to hide in.

In this example, there is no hazard, and therefore no possibility, so no action can result.

The invented case is demonstrated by the concept being taken out of the context of our own experience (Walker & Avant, 1995).

On the planet of Venus the adolescents are gathering for a party where they plan to change into Earthlings. They are aware that not everyone is able to change back, and that some of their friends have actually died from this practice, but they proceed anyway.

Finally, Walker and Avant (1995) define the illegitimate case as a use of the concept that is noted improperly or out of context. This author was not able to find an illegitimate case that contains both parts of the concept. However, the game of RISK is an example of an illegitimate use of risk, but not of behavior.

Antecedents to Risk Behavior

Walker and Avant (1995) note that identifying antecedents may help to focus the concept in the light of the contextual setting and are helpful in further defining the critical attributes. Joseph (1993) infers that autonomy or at least the ability to control what will occur may be an antecedent to risk. Shattell (2004) lists the antecedents of risk as the cognitive ability to reason and make choices, as well as prior knowledge or experience. A decision naturally precedes action and an informed decision about the action must take place before the activity can occur.

The current investigation adds exposure to the antecedents of risk behavior. Exposure brings about the possibility that harm may occur. Without exposure the person would not be at risk. However, there must be a cognitive recognition of exposure and as noted by Shattell (2004) this assumes prior learning or prior knowledge. Cognitive ability or developmental readiness allows the individual to react to exposure.

Consequences of Risk Behavior

Walker and Avant (1995) define consequences as events resulting from or the occurrence of the concept. Shattell (2004) states that a consequence of risk is a decision or action based on the decision making process. The current analysis posits that action is a defining attribute rather than a consequence, due to the combining of the term risk with behavior. Therefore, the consequences of risk behavior include outcome and reinforcement. In the case of risk behavior the outcome may be harm or no harm, but one of these two is always present at the end of the behavior.

Reinforcement includes both positive and negative connotations. The risk behavior is positively reinforced by no harm, or the experience is one of thrill, excitement, and enjoyment. Conversely, behavior may be negatively reinforced by injury, illness, death, or other loss. Joseph (1993) and Shattell (2004) also comment on the possibility that there may not be a bad outcome. Shattell states that lack of resulting harm or injury may lead to more risk taking. This possibility of positive reinforcement of risk behaviors has significant implications related to health promotion and education, especially as related to adolescents, who may believe that no true harm can come to them.

Empirical Referents

Empirical referents are classes or categories of events that can be measured and that demonstrate the concept (Walker & Avant, 1995). The empirical referents of risk behavior can

include a multitude of measurements, such as self-reported survey results, observed behaviors, and epidemiological statistics. Sexually transmitted infectious disease (STD) and pregnancy rates are empirical referents of sexual risk behaviors. Accident and injury rates are evidence of risk behaviors such as alcohol or illicit drug use, or risky driving behaviors. Homicide and suicide reflect risk behaviors related to personal violence and weapon carrying. Tobacco use, illicit drug use, and alcohol use rates reflect risk behaviors associated with substance abuse.

Discussion

The original concept analysis work was completed by this author in 2003. This new review and analysis required an updated literature search and consideration of additional work by other disciplines. This resulted in changes to the antecedents. The original two antecedents were exposure and decision. As noted, a youth had to be in a position where a risk existed and then made a choice prior to acting. Clearly, in order to make a decision one must have autonomy. The addition of autonomy fits very well when considering the developmental trajectory of adolescents.

Autonomy results from the need for independent identity and increased separation from parents. This focal social and developmental issue for adolescents may lead to increased risk behavior. Peer values become the normative basis for behavior, rather than family norms, as teens strive to become independent persons. Cultural expectations and perceptual differences resulting from teen culture alter the cognition, decision making, and behaviors of adolescents (Hoekelman et al., 1997). This developmental push towards independence launches many of them into participation in risk behaviors.

Decision making, which requires cognitive ability or developmental readiness, as well as prior knowledge or experience was not specified in the original analysis, but is certainly an important and necessary antecedent. After studying adolescents, Elkind (1984) states that adolescents have reached the cognitive level of formal operations, and are therefore able to consider abstract thoughts. This allows youths to be able to reflect on the actual process of thinking, resulting in the development of a concept called imaginary audience. Frequent thoughts about themselves cause adolescents to be particularly egocentric and believe that everyone is watching them.

This awareness of self works two ways; they want to be watched, yet they are afraid they may act abnormally and therefore be embarrassed. This belief in imaginary audience leads to the assumption that they are actors in their own personal fable. Elkind (1984) explains the concept of personal fable as the belief that because everyone is watching, they are special, and therefore not affected by actions that might be harmful to others, such as STDs or pregnancy from unprotected intercourse.

Research related to risk and protective factors affecting adolescent risk behaviors supports the conclusion that the living environment may actually encourage risk behaviors because of the social context of day-to-day life. Many rural and inner city communities suffer from economic hardship. Focus group work with rural African American adolescents in North Carolina found that racism, limited employment, and social inequality resulted in participation in risk behaviors (Adimora et al., 2001). A study comparing rural and non-rural African American adolescents found that rural females were more likely than any other group to report certain risk behaviors (Milhausen et al., 2003).

The consequences of risk behavior were not changed by the current analysis. However, deeper thought and future research must be devoted to investigation of the effect of positive reinforcement on subsequent risk behaviors. When the outcome of the risk behavior results in no harmful effect, this may reinforce the adolescent's belief in personal fable and make him or her more likely to continue participation in risk behaviors.

Implications

Imaginary audience may be one reason why adolescents participate in risk behaviors, especially if their peers model those behaviors. Personal fable enables the adolescent to believe that he/she is immune to the dangers associated with risky activities such as death in an automotive crash while riding with an impaired adolescent driver. This has bearing on the cognitive decision making ability of adolescents and must be considered when developing program and interventions for adolescents.

As noted, teens are particularly egocentric and their belief in imaginary audience and personal fable resulting in feelings of invincibility, may cause them to be unable to anticipate both the immediate consequences and the long-term outcomes of their actions. Additionally, peer pressure alters the ability to think reasonably about the outcome of the risk behavior (Stanhope & Lancaster, 2006). Clearly, decision-making is influenced by developmental status. Even with the increased ability to cognate and make moral decisions or judgments, adolescents see the world differently than adults and we must investigate these differences.

Conclusion

This article presents the results of a concept analysis guided by the method suggested by Walker and Avant (1995) into the concept of risk behavior as it relates to adolescents. The critical and defining attributes of the concept are hazard, action, and possibility. Adolescents have the highest rate of risk behaviors, most likely resulting from a combination of normal developmental and peer pressure. Alteration of risk behaviors in this age group holds the greatest potential for long-term change in both personal and public health. Therefore, improved understanding of the concept will help guide the intervention planning and implementation needed to modify unhealthy behaviors.

Adolescents come face to face with an increasing array of confusing issues during their journey into adulthood. These real life decisions involve daily choices between behaviors that are healthy and unhealthy. Youths are expected to make decisions and take actions about risk behavior and matters of personal safety, such as sexuality, tobacco use, alcohol consumption, weapon carrying, and illicit drug use when they may not be developmentally equipped to assess all of the possible short-term and long-term consequences of those health risk behaviors.

Our society expects adolescents to develop the skills needed to make responsible life decisions, yet we offer little training or social support. Increasing control over risk behaviors, as well as appropriate decision-making is expected to occur as the adolescent matures and develops the ability to negotiate the adult world. However, self-control, critical thinking, and appropriate problem-solving behaviors may be lacking. Historically, lecturing about avoidance of risk behaviors as a method of teaching young people has been ineffective. This may be due in part to their belief that they are exempt from any harmful outcome because their personal fable protects them. These critical life skills involved in the decision-making process must be reinforced by programmatic content that is specific to adolescents.

References

- Adimora, A.A., Schoenbach, V. J., Martinson, F.E.A., Donaldson, K.H., Fullilove, R.E., & Aral, S.O. (2001). Social Context of Sexual Relationships Among Rural African Americans. *Sexually Transmitted Diseases, 28*(2), 69-76.
- American Heritage Dictionary: Based on the New Second College Edition.* (1983). New York: Bantam Doubleday Dell Publishing Group, Inc.
- Concise Oxford American Dictionary.* (2006). New York: Oxford University Press, Inc.
- Elkind, D. (1984). Teenage Thinking: Implications for Health Care. *Pediatric Nursing, 10*, 383-385.
- Hoekelman, R.A., Friedman, S.B., Nelson, N.M., Seidel, H.M., Weitzman, M.L., & Wilson, M.E.H.E. (1997). *Primary pediatric care* (3rd ed.). New York: Mosby.
- Jacobs, L. (2000). An analysis of the concept of risk. *Cancer Nursing, 23*(1), 12-19.
- Joseph, D.H. (1993). Risk: A concept worthy of attention. *Nursing Forum, 28*(1), 12-16.
- Kettles, A.M. (2004). A concept analysis of forensic risk. *Journal of Psychiatric and Mental Health Nursing, 11*, 484-493.
- Merriam-Webster Online Language Center. (2008). Retrieved January 2, 2008, from <http://www.merriam-webster.com>
- Milhausen, R.R., Crosby, R., Yarber, W.L., DiClemente, R.J., Wingood, G.M., & Ding, K. (2003). Rural and nonrural African American high school students and STD/HIV sexual-risk behaviors. *American Journal of Health Behavior, 27*(4), 373-379.
- Shattell, M. (2004). Risk: A concept analysis. *Nursing Forum, 32*(2), 11-17.
- Spirito, A., Jelalian, E., Rasile, D., Rohrbeck, C., & Vinnick, L. (2000). Adolescent risk taking and self-reported injuries associated with substance use. *American Journal of Drugs and Alcohol Abuse, 26*, 113-121.
- Stanhope, M., & Lancaster, J. (2006). *Foundations of Nursing in the Community: Community Oriented Practice* (2nd ed.). St, Louis, MO: Mosby Inc.
- Walker, L.O., & Avant, K.C. (1995). *Strategies for Theory Construction in Nursing* (3rd ed.). United States: Appleton & Lange.
- Waring, A. (2000). Adult/elderly care nursing. Constructive risk in the care of the older adult: A concept analysis. *British Journal of Nursing, 9*(14), 916-924.
- Webster's New World Dictionary of the American Language* (2nd ed.). (1972). New York: The World Publishing Company.