4-1-2001

Defining Risk in Home Visiting

Mary Agnes Kendra
Cleveland State University

Valerie D. George
Cleveland State University, v.george@csuohio.edu

Publisher's Statement

This is the accepted version of the following article: Kendra, M. A., & George, V. D. (2001). Defining risk in home visiting. Public Health Nursing, 18(2), 128-137. doi:10.1046/j.1525-1446.2001.00128.x, which has been published in final form at http://onlinelibrary.wiley.com/doi/10.1046/j.1525-1446.2001.00128.x/full

Defining Risk in Home Visiting

Mary Agnes Kendra, Ph.D., R.N., C.S., and Valerie D. George, Ph.D., R.N.

Abstract Risks associated with home visiting have been acknowledged in the nursing literature since the 19th century, yet there is not a well-defined body of literature on this subject. This void in the literature needs to be addressed in view of the current emphasis on practice in the community and the increase in the number of nurses and other health professionals that are new to the field who currently make visits. This article explores how different disciplines define risk and risk taking, identifies attributes of those who become involved in risk situations, and proposes the Cognitive-Perceptual Model of Risk in Home Visiting (CPMRHV) for community and public health nursing. The CPMRHV model provides a framework for identifying how field workers (FWs) perceive, assess, and evaluate situations relative to risk and suggests the development of policies and procedures to empower them and to assure the quality of care.

Key words: risk in home visiting, personal safety, perception of risk, uncertainty, risk, threats to safety, risk factors, cognitive perceptual model.

INTRODUCTION

Home visiting has been the hallmark of public health nursing in the United States since 1877. At that time, the women's branch of the New York City Mission sent ''trained'' nurses into the homes of the poor to provide health care. Public health nursing texts of the 1900s warned nurses of the potential risk in home visiting (Kalish & Kalish, 1978). These early nurses were exposed to communicable diseases, physical injury, and verbal abuse and insult when they intervened in highly charged family and community situations.

Today, field workers (FWs)—nurses, social workers, therapists, home health aides, and other health care providers—continue to be exposed to similar risks with the shift in emphasis on early discharge and ''high tech'' restorative, and rehabilitative care in the home (Feldman, Sapienza, & Kane, 1990; Kendra, 1996). These risk factors may emanate from clients, FWs, agency administrators, agency policies and procedures, or the situational context. Factors evolving from clients such as their health status, tasks to be performed, and illegal activities occurring in the home, and events in the neighborhood such as media reports of unrest, adverse weather conditions, and random acts of violence may cause FWs to experience heightened tension and feelings of uncertainty.

Factors arising from FWs such as being new to home visiting, having insufficient information about the client or the care to be given, and their own personal attributes and circumstances may contribute to uncertainty and increased risk. FWs may also experience anxiety and feelings of uncertainty if administrative policies and procedures are ambiguous or do not provide sufficient latitude to manage the complex situations encountered in the home. Examples include when to call the physician, reporting signs of abuse, and setting limits on client or family behavior.

The complexity of care required by the client's health

status generates the need for more frequent visits by a team of providers with varying skill levels. Many of these providers are new to home visiting, inexperienced in the role for which they have been hired, task-oriented rather than client-focused, and may be required to perform unfamiliar invasive procedures or manage ventilators without the support personnel usually available in acute care settings (Nadwairski, 1992; Rice, 1994; Kendra, 1996). Hence, lack of necessary skills and knowledge increase the possibility of performing these procedures incorrectly and the liability to the client, the agency, and the FW. In addition, changing regulations about when and how often care can be provided may offer little opportunity for coordination of services, thus decreasing the opportunity to provide quality care.

Shortened length-of-stay for hospitalization may indirectly affect the ability of the client and family members to manage prescribed care. Often they do not have the requisite skill, knowledge, or resources to manage unfamiliar equipment or complex procedures. Further, they may not be able to fulfill other family obligations effectively in addition to assuming greater responsibility for complicated care 24 hours a day. The FW's assessment of the family situation includes determining whether the client/family has the requisite skills/knowledge to safely carry out required treatments. Thus, the FW may ask the following questions: (1) What avenues are available to extend the number of visits?, (2) Will the current number of visits achieve the desired outcomes?, and (3) Will this situation engender liability if the client has to be discharged prior to the achievement of desired outcomes? These situations pose a degree of descriptive and measurable uncertainty, since answers to them may pose ethical dilemmas for the FW.

A review of the nursing literature included anecdotal reports of risk and risk prevention strategies for home visiting; however, there was not a body of research or a model that addressed the multiple dimensions of risk involved in the practice setting. This article is directed toward: (1) describing how different disciplines define risk and risk taking, (2) identifying the attributes of risk takers, and (3) developing a model for operationalizing risk in home visiting. The model explains the cognitive-perceptual factors that influence how FWs making home visits define, identify, and respond to risks encountered in their work environment.

REVIEW OF THE LITERATURE

There is a body of work related to the concept of risk and risk taking in the physical, social, and behavioral sciences, for example, environmental sciences, economics, philosophy, and epidemiology. After conducting an integrative review of the social science literature on risk perception, Douglas (1985) argued that social scientists have neglected to systematically pursue this field of study. She contended that this failure to study risk may be responsible for gaps in knowledge, contributes to ignorance about the subject, and as a consequence, may place the public at unnecessary risk. For example, conflicting information from experts about the negative consequences of cigarette smoking and environmental pollution make it difficult for Americans to respond to health promotion initiatives (Kasper, 1980; Slovic, Fischhoff, & Lichtenstein, 1980; U.S. Department of Health and Human Services (USDHHS), Public Health Service, 1990; USDHHS, Public Health Service, 2000).

Views of Risk

Shapira (1994) purported that risk may be characterized by such terms as ignorance, uncertainty, ambiguity, and incomplete knowledge. These all relate to an individual's perspective of the phenomenon within a specific situational context. This approach moves risk from a finite phenomenon to one of increasing complexity due to the interaction between the individual and the risk situation.

Several authors have defined risk in relation to uncertainty—which has as its core the absence of information about parts of a system under consideration—thereby making it difficult to choose appropriate responses to a given situation. Rowe (1977) proposed two types of uncertainty: (1) descriptive uncertainty—absence of information to describe the system, and (2) measured uncertainty—measurement of a variable to determine specific values. Another view of risk is the uncertainty of loss (Denenburg, Eilers, Melone, & Zelten, 1974).

Home visiting is a classic example of descriptive uncertainty since the situational context is different for each visit. Cognition and perception are influenced by personal beliefs, attitudes, ignorance, incomplete knowledge, values, and agency policies and procedures (Slovic et al., 1980). How the FW perceives the situation determines the level of risk ascribed to it. Further, these attributes and circumstances (including time) may also contribute significantly to uncertainty experienced by FWs and impact their behavioral responses to minimize the risk. FWs use self markers (such as eye contact, body position, and movement), environmental props (such as buildings, street lights, police, and security services), personal attributes, and time to respond to risk factors and to protect themselves from harm.

Environmentalists' View of Risk

In 1978, the United Nations Conference on the Human Environments described risk as a statistical concept that

helps to explain the ''expected frequency of undesirable effects arising from exposure to a pollutant'' (Douglas, 1985, p. 20). Stanley (1981) viewed risk as ''the exposure to the chance of injury or loss'' (p. 158) and asserted that when sufficient data exists to support the probability of risk, people will attempt to adjust to protect themselves from harm. Unfortunately, the change or adjustment is not as large as one would expect due in part to personal and situational context of the individual (MacCrimmon & Wehrung, 1986; Douglas, 1985; Slovic et al., 1980).

A risk situation is one with probabilities, a gamble that the wise person seeks less and the risk taker seeks more. In keeping with this view, Kasper (1980) believed that individuals make decisions in risk situations by using two different cognitive and/or perceptual processes. There are ''those that purport to observe or calculate the risk of a process or project and those that rely upon the perceptions of those assessing the risk'' (Kasper, 1980, p. 72). While technical experts view their assessment as ''real'' and ''valid,'' oftentimes the public believes its assessment is just as ''real'' and ''valid.'' As a result of this dichotomy, each side tries to convince the other that its view is ''correct,'' thereby leading to erosion of trust. Examples include the difference between the experts' and the public's views and concerns about nuclear power plants, acid rain, smoking, and global warming.

Often the definition of risk includes the word ''danger'' or ''hazard,'' or at risk behaviors, implying a negative connotation, yet positive aspects also are possible. When one makes a choice that is considered to be a risk, and obtains a high return, that is a positive outcome. The positive and negative outcomes of risky choices make the decision-making process pivotal for dealing with uncertainty and ambiguity.

Some authors use risk and hazard interchangeably or define risk as a quantitative measure of hazards or consequences that are ''conveniently expressed as mortality or injury probabilities . . . [that result from] a causal sequence of events that lead from human needs and wants to choice of technology, to possible releases of materials and energy, to human exposure to eventual harmful consequences, and health effects'' (Hohenemser, 1983, p. 51). Consequently, every choice carries a degree of uncertainty. For example, during a home visit, one can be exposed to tuberculosis or human immunodeficiency virus (HIV), but the risk of injury or harm is related to one's ability to control certain factors associated with the diagnosis. Thus, proper use of universal precautions minimizes the risk of transmission of contaminants to the FW and the environment. From their review of psychometric studies related to risk, Slovic et al. (1980) identified 16 descriptors associated with risk (Table 1). These descriptors address choice, knowledge, consequences, degree of exposure, and the possibility of death and imply that risks should be taken voluntarily. For example, when making a decision about an action, there may be several alternatives available to choose from. One's decision is based on what is known about the situation, the consequences that may result, and the extent of the exposure. In some instances, the risk may not be observable, such as in a home setting where the presence of disease in other individuals is not known.

TABLE 1. *Descriptors of Risk*

Descriptors
Not observable
Unknown to those exposed risks
Effect delayed
Dread
Consequences fatal
Catastrophic
Not easily reduced
Involuntary
New risk
Unknown to science
Uncontrollable
Global catastrophic
Not equitable
High risk to future generations
Risk increasing
Affects me

Adapted from: Slovic et al., 1980.

Philosophers' and Economists' Views of Risk

From a philosophical perspective, risk refers to the uncertainty of death, the value of life, coping with uncertainty, and controlling the environment through a variety of strategies. Rowe (1977) contended that ''every activity involves some risk, however, there are some kinds of risk and some levels of risk that members of society are unwilling to assume'' (p. 1).

Douglas (1985) argued that perception of risk is dependent on ''standardized public ideas about justice'' (p. 5). According to the principle of distributive justice, allocation of risk implies an accepted norm that sustains the moral fabric of society. Thus, it is basically unfair to knowingly subject individuals to risk without benefit accruing to them. From the workers' perspective, the threshold of risk acceptability in the workplace is lowered when they consider themselves to be exploited.

Like philosophers, economists view risk similarly, believing that some risks should never be taken. Gitman (1994) stated that risk is the ''chance one takes that actual outcomes may differ from those expected'' (p. 17). Therefore, risk may be described as a form of betting or gambling because it is ''very dependent upon actual differences be-

tween people and their differing self-perceptions'' (Byrd, 1974, p. 15). Some believe that wagering is the only situation where ''the chances of loss are clearly stated'' (MacCrimmon & Wehrung, 1986, p. 27).

Epidemiologists' View of Risk

Miettinen (1985) defined risk as the ''probability of a particular event, especially an untoward one, such as the inception of a particular disease'' (p. 249) that relates to incidence proportion. Risk is believed to be a theoretical nonempirical entity, whereas incidence can be either theoretical or empirical and is not a singular parameter of nature. The level of risk depends on the situational context. Epidemiologists have developed models to predict the probability of an adverse event occurring, such as the likelihood that healthy persons exposed to a specific risk factor will acquire a specific disease. These predictions result from evaluation of aggregate data over time. This notion is similar to that of environmentalists who view risk as exposure to specific factors that are frequently external to the individual, such as cigarette smoking, air and water pollution, high noise levels, deforestation, or chemicals in the environment.

Timmreck (1998) defined risk factors as predisposing at-risk behaviors or conditions that increase the probability of developing a particular disease, condition, or disorder. These risk factors arise from lifestyles and are ubiquitous and require careful monitoring to protect one's health. Predisposing factors influence behaviors by motivating persons to pursue a particular health behavior. For example, breaking universal precautions increases the probability that the FW may become infected with organisms.

Epidemiologists believe that specific interventions directed at the primary, secondary, or tertiary level of prevention can be used to promote and protect health. Thus a benefit might accrue to a client's cardiovascular health if s/he participates in smoking cessation, cholesterol reduction, and exercise programs to maintain or regain cardiac status.

Attributes of Risk Takers

Byrd (1974) viewed risk taking as dealing with uncertainty and associated risk taking with loss, not gain. Luce and Raiffa (1957) separated risk taking into three categories: (1) certainty—where an action usually leads to a particular known or expected outcome; (2) risk—where an action has a few known outcomes; and (3) uncertainty—where an action may lead to unknown outcomes. A more recent view of risk taking proposed by Shapira (1994) held that risky choices are either normative (tells people what they should do when making choices involving risk) or descriptive (how people actually make choices when confronted with decisions involving risk). Two of the most common attitudes linked to risk takers are wanting to be in a stimulating environment and having the ability to exert control over it (MacCrimmon & Wehrung, 1986). These attitudes may not effectively serve FWs because of the unpredictability of risk factors inherent within each home visiting situation.

Since confronting risk implies a potential for the realization of unwanted negative consequences, the importance of risk assessment becomes a reasonable endeavor. Assessment involves risk estimation—''the identification of the consequences of a decision and subsequent estimation of the magnitude of the associated risks . . . [and] risk evaluation . . . the complex process of anticipating the societal response to risks'' (Otway, 1975, p. 5).

In summary, the notion of risk pervades a number of professional fields, each of which ascribe different ideas about risk, risk factors, risk taking, and risk perception. Of particular importance for the cognitive-perceptual dimensions of risk is the multidimensionality of the construct of risk and the interplay of these factors on decisions made by FWs as they respond to potential threats to personal safety.

THE COGNITIVE-PERCEPTUAL MODEL

Figure 1 identifies the Cognitive-Perceptual Model of Risk in Home Visiting (CPMRHV) and its various components. The conceptual framework for the model is derived from the works of Lazarus (1991, 1966), Lazarus and Folkman (1984) on cognition and perception, Rowe (1977) on risk and risk taking, and McGrath (1970) on time, setting, and the coping process.

The model has three major components that are related to the environmental-situational context of the FW, the

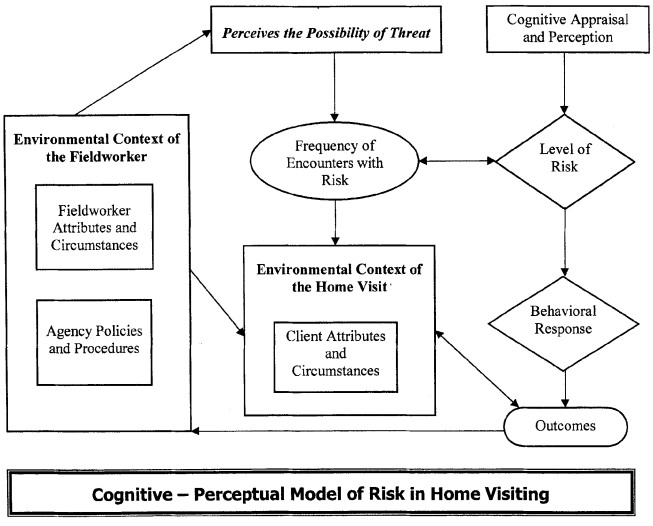

Figure 1. Cognitive-Perceptual Model of Risk in Home Visiting.

client, and the cognitive-perceptual process. The first component pertains to FWs and the lenses through which they view their world. This component includes the environmental context in which FWs live, work, and play, their cultural intuitions, and personal attributes and circumstances. The second component, client factors, includes the environmental and situational context of the home visit, the FWs' perception of that environment, the frequency with which FWs encounter risk during prior home visits, and the client's attributes and circumstances. The third component, cognitive appraisal and perception, is the evaluative dimension that includes the decisions made by the FW about the level of risk ascribed to a risk factor or a risk situation, and the behavioral response and resultant outcome.

The model proposes that the FWs' response to risk factors within the process of the home visit is mediated by personal attributes, cognitive and perceptual appraisal, the nature of the risk factors encountered and the threat that they pose to self, the frequency of prior experience with risk factors, the presence of risk factors within the client environment, and the FWs' evaluation of their ability to cope with the uncertainty engendered by the risk factors (see Table 2). These factors influence the level of risk assigned to the risk factor or situation and the resultant behavioral responses and outcomes. The model depicts a dynamic process in which cognitions, perceptions, and decisions of the FW will impact the client and the FW's current and future responses in home visiting situations. The nature of the outcome is dependent upon whether the FW's behavioral responses resulted in positive or negative outcomes.

FW Attributes and Circumstances

Cognition is the mental act of discernment, thought, insight, awareness, and an appraisal process that determines why and to what extent a particular transaction or series of transactions between the person-environment poses a threat. Cognitive appraisal is the judgment made by the person that the environment poses a threat to well-being. Inner promptings interact with the objective environment to generate cognitive appraisal. The FWs' commitments and beliefs, life experiences, and needs determine what is important for their well-being in a given interaction and shapes their understanding of the event. Personal attributes and circumstances provide the basis for appraisal (Lazarus, 1966, 1991; Lazarus & Folkman, 1984).

Perception relates to how people view the world. It is influenced by beliefs, attitudes and values, cultural sensitivity, and personality attributes such as the self-concept and sense of coherence (Antonovsky, 1979, 1987). According to Rowe (1977), perception has at its core, the idea of uncertainty. Perception of risk is subjective and relates to

TABLE 2. *Cognitive and Perceptual Factors Influencing Perception of Risk*

Individual Attributes
Cognitive
Age
Educational level
Experience with home visiting
Ability to deal with ambiguity and uncertainty
Gender
Personal motivation
Degree of autonomy on the job
Perceptual
Self-concept
Life experiences
Socioeconomic status
Culturally learned intuition
Personality attributes
Current cultural pressures
Years in community of public health nursing
Non-job related personal pressures
Attitude toward risk situations
Cultural sensitivity
Ethnic identity
World view
Beliefs, attitudes, and values
Job description
Media reports of adverse events in the community being visited
Risk situations previously encountered during home visiting
Health status of field worker
Personal and family stressors
Contextual/Situational Factors
Related to the client
Health status
Diagnosis
Adequacy of client database
Type and level of care prescribed
ADLs and IADLs
Demographic profile of the client—age, gender, ethnicity, etc.
Geographics of the home visit
Insurance coverage
Number of providers involved in the case/care
Number of persons and activities in the home
Level of available social support
Related to agency
Governance structure
Structure of job
Policies and procedures
Visits after 5:00 p m.
Referral sources
Geographic boundaries
Policies regarding personal safety
Relationship between staff and supervisors
Staff's ability to refuse visits

TABLE 2. *Continued*

Staff mix
Staff development programs regarding risk
Level of reimbursement
Multiple providers complicating coordination of services
Contextual/Situational Factors
Related to the environment
Population density in the area of the visit
Racial and economic instability
Evidence of illegal drug use or trafficking
Roaming or vicious dogs
Media reports of crime and unrest
Availability of social resources

the probability of an adverse event. In addition, expectations or cognitive appraisals that the FW makes of the potential risk situation leads to an evaluation of the event as threatening or nonthreatening and influences behavior.

Similar factors influence cognition and perception of risk such as personal attributes and characteristics, life experiences, age, gender, personal motivation, education level, degree of autonomy of the job, years in community or public health nursing practice, and experience with home visiting. Intrinsic factors that influence cognition and perception include the FW's self-concept, life experiences, culturally learned intuition, personality attributes, his/her world view, beliefs, values, and attitude toward risk situations, the ability to deal with ambiguity, uncertainty and change, non-job related personal pressures, and health status. Extrinsic factors, such as income, an available support system, personal and family stressors, place of residence, job description, media reports of adverse events in the community being visited, and current cultural pressures affect perception as well. Together, these elements shape the FW's understanding of his/her world and provide the basis for appraisal of the home visiting situation and decision making.

Situational factors related to the agency for which the FW works also contribute to cognition and perception of risk. Many of these factors, such as the community, home health care, or public health agency's philosophy of care, policies and procedures, governance structure, strategies for personal safety, time of day that home visits are made (that is, after 5 p.m.), referral sources, interpersonal relationship between FWs and their supervisors, and the level of autonomy afforded the FW may not provide support or recognition of the problems faced on a daily basis. Other issues related to providing care that are governed by the agency may also predispose the FW to risk, for example, the type of clients served (client's diagnosis and health status), adequacy of the client's database, type and level of care prescribed, and geographic boundaries served, have the potential for increasing a FW's feelings of measurable or descriptive uncertainty.

Several of these factors are outside of FWs' control and may lead to heightened uncertainty should they believe that they do not possess or have access to resources necessary to protect themselves from harm. Thus, the FWs' perception of risk is not only dependent on personal attributes, but also on the agency, the client, and the situational context in which the home visit occurs.

Perception of the Possibility of Threat

The second component of the model addresses the FW's appraisal of the home visiting situation. This appraisal includes the environmental and situational context of the home visit, the FW's previous encounters with risk during the home visiting process, and client's health status, attributes, and circumstances. If there are other persons in the home, they are also included in the appraisal. The FW brings self markers and environmental props to the home visiting situation, which are used to appraise and protect him or her from harm.

When a FW enters a home visiting situation s/he brings a certain degree of uncertainty and ambiguity from such contextual and/or situational factors as population density in the area of the visit (rural, suburban, or urban locations), racial and economic instability, evidence of illegal drug use or trafficking, urban decay, and transient boarding houses. Groups of people congregated in doorways, at street corners, outside of bars and storefronts, roaming or vicious dogs, media reports of crime and unrest, and the absence of safety resources such as police and security patrols increase the FW's perception of uncertainty. Prior experiences in home visiting may or may not be helpful if the environment is viewed as posing risk to personal safety.

Taken collectively, these factors create a heightened sense of tension that may result in a situation being perceived to be more or less risky than it actually is. Under these circumstances the FWs' ability to make crucial decisions to minimize or eliminate risk is lessened, and their customary behavioral responses used to prevent and/or control risk are impaired.

Frequency of Encounters with Risk

Another factor that may influence the FW's appraisal of the home visiting situation is the frequency with which s/he has encountered risk factors during prior home visits and the resultant outcomes of those experiences—were they negative, positive, or benign. Although the risk might not have involved the client that is being visited, the FW may be unable to resolve a recent episode with another client and continue to experience a heightened state of

tension in the field. One may ask, ''When does a risk factor become a threat?'' FWs are threatened when they anticipate that they do not have the resources necessary to manage the situation. Therefore as they strive to meet basic needs for safety, time, circumstances, attitudes, and values play an important part in the appraisal process. Unfortunately, it is difficult to precisely identify how people make decisions about the salience of encounters with risk, and as a result, what is often expressed explicitly does not indicate the value judgments employed in arriving at the behavioral response (Rowe, 1977).

Environmental Context of the Home Visit

The environmental context of the home visit refers to where the risk situation occurs during the process of the home visit. Home visiting may be considered to be a process that has a beginning and an end. It begins when the FW opens a case and reviews referral information to determine the clients' health status, activities of daily living (ADLs) and instrumental activities of daily living (IADLs), treatment protocols, other providers involved in the case, the physician of record, availability of an informal support system, and the client's address, etc. This assessment process is a common activity done by all FWs; it lays the framework for developing a plan of care, subsequent data collection, planning, and interventions. How FWs interpret the information sets into motion a complex series of activities aimed at meeting the work load requirements. At the same time, FWs appraise their ability to meet the expectations of the case within their skill level and expectations, or to evaluate the situation and respond based on their past experiences and relationship with the environment.

Time is an important variable and the most neglected aspect of the risk response. Time is a precondition for the occurrence of stress or perceiving a situation as a threat; it influences coping and the meaning of a situation. Time may also decrease the significance of a risk situation and alter the level and kinds of threats involved at different points of the risk appraisal process (McGrath, 1970).

Time of day takes on considerable significance and increases the feeling of uncertainty when making visits to neighborhoods that are unfamiliar, sparsely or overpopulated, significantly different from that of the FW, or for which media report of crime and unrest appears in the newspaper or on radio and television. Making home visits in nondaylight hours and not being able to ''see'' the surroundings may greatly increase the FWs' belief that potential risk lurks everywhere.

Client Attributes and Circumstances

Entry into the client's home presents the opportunity to use the senses to cognitively appraise not only the client but also persons in the home, their activities, and the general appearance of the home. The client and family members are also involved in their own cognitive appraisal of the FW and the FW's caring behaviors provided to the client. Sociocultural similarities between FWs and clients provide the opportunity for sharing world views. Significant differences between the client and the FW, however, may foster misunderstanding, conflict, or increased uncertainty in the communication process.

Home visiting interventions may in and of themselves pose a threat to the FW because they: (1) are difficult or complex; (2) approach or exceed the FW's skill level; (3) require a significant amount of time or several complex treatments; (4) leave little or no margin for error and failure in the task may cause a threat to the worker, the client, and/or the agency; and (5) are routine tasks that cause under-load. Performance of some of these interventions may be crucial because they will avoid, reduce, or overcome the effects of some otherwise life threatening condition, that is, managing ventilators (McGrath, 1970).

As FWs care for clients they rely on an accurate and complete client database. From time to time, however, significant data may be missing at the time of the initial visit; this data may include a complete history, the treatment and medication protocol, a list of other providers, and who to call in case of an emergency. Upon assessing the client's ability to participate in his or her care, it may be discovered that the ADLs and IADLs identified for the client were inaccurate. For example, the client may be able to feed himself, but is unable to prepare and serve himself a meal because of continued fatigue and shortness of breath. While caring for a frail elder, the FW may find that the care requirement for ambulating and transferring the client are beyond her capabilities because the client does not have the physical strength or coordination to assist. This scenario places the FW at significant risk for back injury and the client at risk for falling.

Client expectations regarding services covered by their insurance company and what the agency can provide may differ. For example, prior to discharge from the hospital the client was told that he was entitled to a visit from the registered nurse 3 times a week for 6 weeks, when in fact his insurance guidelines for reimbursement cover only 6 visits over a 2 week period. The client may become belligerent and demanding when expected services are not provided. These situations are encounters with risk that the FW did not expect, and may perceive and interpret as having a potential for risk. In these instances the FW must be able to use interpersonal skills and agency resources to convince the client of his/her support in order to defuse a potentially volatile situation.

FWs are not threatened by demands that they perceive themselves as being able to manage with available re-

sources. Should verbal explanations not suffice, if agency support is not available, or the insurance company does not alter its provisions, however, the FW may experience sensory overload and respond in ways that result in negative outcomes. The FW has to play the role of caregiver, mediator, counselor, and advocate by utilizing interpersonal skills to increase the client's comfort and to resolve his or her own feelings of uncertainty.

Cognitive Appraisal and Perception

The third component of the model is evaluative. It includes the decisions made by the FW about the level of risk ascribed to a risk factor or situation, the behavioral response to the risk, and the resultant outcome. Here cognition and perceptual factors play a significant role in the risk appraisal process. When faced with a risk situation, the FW uses the aforementioned cognitive-appraisal process to decide how to respond and the sequence of responses needed to mitigate the situation. FWs with several years of experience may be too comfortable with the family so that their intuitive sense of risk is nullified. Suburban and rural neighborhoods may be perceived as ''more safe'' than urban areas—yet the potential for situations posing risk are ubiquitous. New FWs may want to demonstrate that they have the knowledge and skills to handle any situation that arises, regardless of risk to personal safety. It can be argued that cognitive and perceptual appraisal of risk is inextricably related to the FW's perceived capacity to respond sufficiently to decrease the impact of the risk factor or situation, thereby protecting him or her from harm.

Level of Risk

The outcome of the cognitive-perceptual process results in the assignment of a level of risk to the situation encountered. Level of risk refers to the degree to which a situation poses a threat to an individual along a continuum from no risk to high risk. When individuals encounter the same risk situation, each ascribes a value to it that reflects his/her perception of the potential harm that may accrue from it. In risk situations, individuals exposed to the same risk will judge it differently based on age, gender, environmental and situational constraints, and other personal attributes and make a decision as to whether the amount of risk involved warrants approach or avoidance (Stanley, 1981).

Risk factors become a threat when individuals believe they are: (1) unable to cope with it, (2) unable to cope with it adequately, or (3) unable to cope with it without endangering other goals. Summarily, a risk factor also becomes a threat when there is an imbalance between perceived demands of the risk factor and perceived response capability of the FW (McGrath, 1970). All of these appraisals lead the FW to perceive that s/he is being threatened, resulting in an evaluation and designation of a level of risk to the situation. The health status of the person, personal pressures, and family circumstances are notable contributors to evaluating a situation as a risk.

In the home visiting situation, FWs may perceive risk to their personal safety and respond in ways that increase the potential for harm. For example, if there are several people in the home, some FWs will remain, while others will leave—depending upon their previous experience with this type of situation. Also, if there are people having a disagreement in the home, the same behaviors on the part of the FW may become operational. Again, the importance of previous experience in home visiting is important here and becomes the basis for deciding whether to remain or leave the situation.

The most significant issue for FWs is their evaluation of the risk and the outcome of the decision-making process. FWs are embedded in the social system of the community in which they reside and work; as a result, they become knowledgeable about the community. Together, these aspects contribute to their assessment of the situation and at some conscious or unconscious level, enable them to make a decision regarding the degree of threat emanating from the situation.

Behavioral Response

Behavioral response refers to the strategies that an individual uses to manage, or cope to protect the self from harm. The response involves multiple coping techniques used simultaneously or consecutively. Time is an important element in behavioral response to risk. People may anticipate the risk before coming in contact with it, respond during the encounter, or respond after experiencing the risk factor. The idea of anticipating a risk is especially important because it enables the individual to evaluate his/her capability to respond effectively. The windshield survey is a common strategy used by community and public health nurses to determine the presence of potential risk factors prior to making an initial visit in an unfamiliar neighborhood or one that is experiencing social upheaval (Shuster & Goeppinger, 1996).

The safety of one's car becomes an environmental prop; it provides physical protection yet allows the FW to discern a variety of elements in the neighborhood prior to the visit. Data that is gathered from this strategy may influence the time of day that the visit is made, how the FW dresses, equipment that is carried, or the use of a security escort. Other strategies that the FW may decide to use include talking with other FWs about experiences in the neighborhood or with the client, calling ahead to let the family know what time the visit will be made, having the necessary supplies, using a reliable car to avoid being stranded in a rural area or in an unfamiliar neighborhood, having a pager

or cellular phone, and carrying mace or pepper spray. These are just a few examples of strategies used by FWs to protect themselves from harm in anticipation of a home visit. These anticipatory coping behaviors are aimed at insuring personal safety (Lewis & Hallburg, 1980; Smith, 1988; Snow & Kleinman, 1987).

During an afternoon home visit the FW encounters a number of persons in the home, talking loudly with empty beer cans and liquor bottles strewn on the floor and on tables. The client's bedroom is upstairs; in order to reach him the FW must walk through the group of people. This scenario may cause the FW to experience a certain degree of uncertainty. The presence of possible risk is evident and the option of staying or leaving is within the worker's purview. The decision to stay could be in part related to FW's desire for a stimulating environment and a feeling that s/he has the ability to control the situation. The FW may decide, however, to leave. The consequences of leaving or staying and the decision that the FW makes will be based upon his/her belief that s/he has the necessary resources to cope with whatever might ensue. If the FW is able to cope with the situation well, it will impact coping with clients in the present and how s/he responds in future situations. It is in these kinds of situations that FWs begin to become aware of their capacity to cope in complex situations.

Outcome

Outcomes are the results of behavioral responses which have an effect on FWs, clients, and the agency. As such, outcomes reveal the extent to which the behavioral responses had a positive or negative effect on reducing the risk engendered by the situation. A positive outcome occurs when it preserves or enhances the well-being of the FW, client, or agency. A negative outcome occurs when it causes harm to the FW, client, or agency or anyone who is affected by the behavioral response. Outcomes provide the opportunity for gain or growth that is present in each interaction. In the case of risk, the desired outcome is to protect the safety and integrity of the FW while at the same time protecting the client and agency.

Behavioral responses may engender outcomes that create ethical dilemmas as FWs attempt to protect themselves from microorganisms, sexual harassment, back injuries, or physical and verbal assaults. There may be occasions when the FW may not complete all interventions, shorten visits, and refuses to make visits that pose threats to safety. These decisions may cause problems for the agency. If the FW feels overwhelmed by increasing demands made by the agency (not allowing him or her to refuse visits, increasing the number of visits to be made each day, or assigning visits that are located over disparate geographical distances), submitting a letter of resignation to his or her employer may become the only option.

Another aspect related to outcomes is the possibility that the FW will engage in self-reflection following a situation in which s/he has had to respond to a risk factor. The FW may examine his or her interactions with the client and then consider to what extent his or her response brought about the outcome. In doing so, s/he may be able to look at alternative responses that could have achieved a more desirable outcome. As FWs reflect on their practice, they begin to develop a repertoire of problem-solving behaviors. This personal dialogue allows for the possibility of reacting differently in future situations.

In order to sustain a positive work environment for FWs, opportunities need to be provided by agencies to validate negative experiences as being real. Agencies may decide to devise other mechanisms for empowering their workers to deal with the uncertainty of home visiting, thereby reducing FW turnover.

SUMMARY AND CONCLUSION

The CPMRHV provides a framework for defining and measuring perception of risk and level of risk experienced by FWs. The model suggests that the assessment of risk can be viewed along a continuum from no risk to high risk. This assessment results in a behavioral response that is aimed at protecting the FW from harm. The behavioral response depends on the perceived capability of the FW. While home visiting brings a certain degree of uncertainty, ambiguity, and risk, some FWs are willing to accept those risks and consequences while others may not. The FWs' behavioral responses can be tempered and enhanced by education, administrative support, and personal empowerment.

It would be fortuitous for decision makers and guardians of community and public health nursing culture to conduct research to validate the efficacy of the model in a variety of clinical situations. That research should be aimed at (1) identifying situations perceived as posing risk in home visiting; (2) evaluating the extent to which these risks are viewed as threats to safety for the individual FW, administrator, agency, or client; and ultimately (3) designing interventions to address the various dimensions of risk.

REFERENCES

Antonovsky, A. (1979). *Health, stress, and coping.* San Francisco: Jossey-Bass.

Antonovsky, A. (1987). *Unraveling the mystery of health: How people manage stress and stay well.* San Francisco: Jossey-Bass.

Byrd, R. E. (1974). *A guide to personal risk taking.* New York: AMACOM.

Denenburg, J. S., Eilers, R. E., Melone, J. J., & Zelten, R. A.

(1974). *Risk and insurance* (2nd ed.). Englewood Cliffs, CA: Prentice Hall.

Douglas, M. (1985). *Risk acceptability according to the social sciences*. New York: Russell Sage.

Feldman, P. H., Sapienza, A. M., & Kane, N. M. (1990). *Who cares for them? Workers in the home care industry.* New York: Greenwood Press.

Gitman, L. J. (1994). *Principles of managerial finance* (7th ed.). New York: Harper Collins College Publishers.

Hohenemser, C. (1983). Summary of panel discussion and commentary. In V. T. Covello, W. G. Flamm, J. V. Rodricks, & R. G. Tardiff (Eds.), *The analysis of actual versus perceived risks* (pp. 49–67). New York: Plenum Press.

Kalish, P. A., & Kalish, B. J. (1978). *The advance of American nursing.* Boston: Little Brown.

Kasper, R. G. (1980). Perceptions of risk and their effects on decision making. In R. C. Schwing & W. A. Albers, Jr. (Eds.), *Societal risk assessment: How safe is safe enough?* (pp. 71–80). New York: Plenum Press.

Kendra, M. A. (1996). Perception of risk by home health care administrators and field workers. *Public Health Nursing, 13*(6), 386–393.

Lazarus, R. S. (1966). *Psychological stress and the coping process*. New York: McGraw-Hill.

Lazarus, R. S. (1991). *Emotion and adaptation*. New York: Oxford University Press.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal and coping*. New York: Springer.

Lewis, I. D., & Hallburg, J. C. (1980). Strategies for safe home visits. *Urban Health, 9*(6), 40–41.

Luce, R., & Raiffa, H. (1957). *Games and decisions*. New York: Wiley.

MacCrimmon, K. R., & Wehrung, D. A. (1986). *Taking risks: The management of uncertainty.* New York: The Free Press.

McGrath, J. E. (1970). Major substantive issues: Time, setting and coping. In J. E. McGrath (Ed.), *Social and psychological processes in stress* (pp. 22–40). New York: Rhinehart and Winston.

Miettinen, O. (1985). *Theoretical epidemiology: Principles of occurrence research in medicine.* Albany, NY: Delmar.

Nadwairski, J. A. (1992). Inner-city safety for home care providers. *Journal of Nursing Administration, 22*(9), 45–47.

Otway, H. J. (1975). *Risk assessment and societal choices.* Laxenbury, Austria: International Institute for Applied Systems Analysis.

Rice, R. (1994). Safety in the community. *Home Healthcare Nurse, 12*(3), 70.

Rowe, W. D. (1977). *An anatomy of risk*. New York: Wiley.

Shapira, Z. (1994). *Risk taking: A managerial perspective.* New York: Russell Sage Foundation.

Shuster, G. F., & Goeppinger, J. (1996). Community as client: Using the nursing process to promote health. In M. Stanhope & J. Lancaster (Eds.), *Community health nursing: Promoting health of aggregates, families, and individuals* (pp. 289–314). Chicago: Mosby.

Slovic, P., Fischhoff, B., & Lichtenstein, S. (1980). Facts and fears. Understanding perceived risk. In R. C. Schwing & W. A. Albers, Jr. (Eds.), *Societal risk assessment: How safe is safe enough?* (pp. 181–212). New York: Plenum Press.

Smith, S. (1988, April). Take care, be aware. *Community Outlook* pp. 10, 12.

Snow, D. A., & Kleinman, L. S. (1987). The impact of crime on home care services. *American Journal of Public Health, 77*(2), 209–210.

Stanley, K. (1981). Role of risk in treating advanced lung abscess. In V. T. Covello, W. G. Flamm, J. V. Rodricks, & R. G. Tardiff (Eds.), *The analysis of actual versus perceived risks* (pp. 157–174). New York: Plenum Press.

Timmreck, T. C. (1998). *An introduction to epidemiology.* Boston: Jones and Bartlett.

U.S. Department of Health and Human Services (USDHHS), Public Health Service. (1990). *Healthy people 2000.* Washington, DC: USDHHS.

U.S. Department of Health & Human Services (USDHHS), Public Health Service. (2000). *Healthy people 2010.* Washington, DC: USDHHS.