Creating Safer Communities: The Underlying Theory of the Rape Prevention and Education Model of Social Change

Overview

Introduction

The purpose of this document is to summarize the underlying theories and empirical research that form the scientific basis for the Centers for Disease Control and Prevention's theory model *Creating Safer Communities: Rape Prevention Education Model of Community Change* and the corresponding *Activities Model for Primary Prevention of Sexual Violence.* The models were developed for and with Rape Prevention and Education (RPE) grantees and are intended to guide the programmatic direction of the program. Because the models are developed specifically for the RPE program they include the legislatively authorized permitted uses.

This document is not intended to be an exhaustive review of the literature but rather provide a basic foundation for understanding the theory model.

Because the field of sexual violence research is relatively young (Koss, 2005), there is limited empirical research on effective rape prevention models (see also Bachar & Koss, 2001). As a result, this review draws from multiple scientific disciplines (e.g., psychology, sociology, public health, medicine) and examines diverse social and health problems (e.g., HIV/AIDS prevention, substance abuse) to develop an integrated theoretical framework for rape prevention.

The intended audience for this review paper is CDC personnel and stakeholders of the Rape Prevention and Education (RPE) Program.

Rationale

Consistent with the social ecological model, the underlying causes of sexual assault are complex and multifaceted, and as a result, primary prevention efforts must target multiple levels of analysis. In order to prevent sexual violence from initially occurring (primary prevention) prevention efforts will require changing the norms, climate, and culture of our communities. At the same time, individuals within our communities must also change their behaviors and choose not to be sexually abusive to their peers, to their friends, to their families, or to strangers. This presents a challenge for sexual violence prevention efforts: a theoretical model is needed that articulates how to promote <u>both</u> community change and individual behavior change.

Underlying theories

The CDC RPE Theory and Activities Models were based on *Diffusion of Innovation Theory (DOI)* (Rogers, 1995) which is a theory of how to bring about community-level changes, and three theories of individual behavior change: *Theory of Reasoned Action (TRA)*, *Theory of Planned Behavior (TPB)*, and the *Health Belief Model (HBM)* (Biglan, 1995; Glanz, Rimer, & Lewis, 2002).

Diffusion of Innovation Theory (DOI)

Why DOI theory was used

DOI Theory was selected as the theoretical foundation for the community change component of the RPE model because:
(1) this theory addresses the processes and mechanisms needed to create community-level change, which is conceptually consistent with the social-ecological model; and
(2) this theory has been empirically tested in health prevention studies and has been found to be a sound approach for health promotion.

Considerations

It is important to note that DOI Theory has not yet been tested in the specific context of sexual violence prevention; the strongest empirical support for DOI theory comes from studies of community-level interventions for HIV prevention. To date, there are no studies that have tested DOI Theory in the context of an explicitly gendered social problem, such as rape prevention. However, there are no studies in the published scientific literature that provide empirical support for any other community-change model for rape prevention.

Theory Overview

Rogers' (1995) DOI Theory has **four main elements** and explains how an innovation or intervention can be spread throughout a community in ways so that the community becomes saturated with new ideas or principles, and this saturation leads to the emergence of new community norms.

The CDC RPE program is focused on saturating communities with ideas, information, and skills that lead to the prevention of sexual violence and the promotion of safety, equality and respect.

DOI theory elements: *Innovation*

Innovations refer to "an idea, practice, or object that is perceived as new by an individual or other unit of adoption" (Rogers, 1995, p. 11). The key point here is that it is *perceived* as new. Even developing a positive attitude toward something that you previously had a negative attitude toward would qualify as a perceived new idea.

5 characteristics of innovations:
(1) *Relative advantage* refers to the degree to which the innovation is perceived as superior to the previous practice. The higher the relative advantage, the more quickly the innovation is adopted.
(2) *Compatibility* is the degree to which an innovation is perceived as being consistent with the existing values, past experiences, and needs of potential adopters. Again, the higher the compatibility, the more quickly the innovation is adopted. This can be a challenge for rape prevention where the innovation may be compatible with some existing values (e.g., safety in relationships, non-violence, and justice), but in opposition to other existing values (e.g., male privilege, rigid gender roles, and norms of sexual behavior). These conflicts are further exacerbated when existing values are not explicitly acknowledged within the community.

(3) *Complexity* refers to how difficult the innovation is to understand and use. The less complex it is, the more quickly it will be adopted.
(4) *Trialibility* is the degree to which the innovation can be tried out on a limited basis. The higher the trialibility, the more quickly the innovation may be adopted.
(5) *Observability* is the degree to which the results of the innovation are visible to others. The easier it is to see results from the innovation, the more likely it is to be adopted. This poses another challenge for rape prevention innovations given the interpersonal and usually private nature of sexual violence.

In addition, Rogers (1995) noted that innovation adoption can be challenging because some interventions may benefit some people and not others, the advantage of an innovation is not always clear to the intended adopters, and as the innovation moves throughout a community or system it is changed or modified in different ways.

DOI theory elements:
Communication

The second element of the diffusion of an innovation is the *communication channels* by which the innovation is spread from one person or unit (Rogers, 1995). Of particular interest is how the innovation is spread from a person/unit who has knowledge about the innovation (e.g., the rape prevention program) to other persons/units who do not have knowledge about the innovation (e.g., the general public).

Some examples of communication channels include the *mass media,* which allows for quick diffusion by having a small number of persons reach a large audience, and *interpersonal channels,* which involve face-to-face exchange of information. The interpersonal channels may be more effective at persuading people to adopt a new behavior, especially when the people communicating and receiving the innovation are similar in some ways.

In thinking about communication channels it is important to remember that most people do not depend on objective scientific evaluation about an innovation. Instead, they rely on *subjective* evaluations from other people like themselves. Additionally, communication can be more effective in changing knowledge, attitudes, and behaviors when the people involved are alike in ways that they perceive to be important (e.g., similar language, social status, etc.). However, in the diffusion of innovations, the people communicating the innovation (the change agents; e.g., rape prevention program staff) are often quite different from the people with whom they are communicating. It is important that change agents be able to "speak the same language" as the people they are communicating with in their interventions.

DOI theory elements:
Time

DOI takes into account time in three ways.
    (1) *Innovation decision process*. This process begins when someone is exposed to and begins to understand the innovation. This includes awareness of the innovation and knowledge of how to utilize the innovation and its principles effectively. Following exposure and basic understanding, persuasion occurs when someone develops a positive or negative attitude toward the innovation. That persuasion leads to a decision either to accept or reject the

decision. This is followed by a confirmation of the decision as they seek reinforcement for the decision or they reverse their decision based on its consequences.

(2) *Types of innovators*. People who adopt the intervention early tend to be exposed to a lot of mass media, have large social networks, seek out information, and worry less about the consequences of the innovation. People who adopt the innovation later tend to have less exposure to mass media and are often of lower social status.

(3) *Rate of adoption*. Rate of adoption refers to how quickly community members adopt the new innovation. At first, few individuals typically adopt the innovation, and then many more do and the rate curve climbs significantly, and finally the adoption curve levels off because there are fewer and fewer people who have not adopted the innovation. Rogers (1995) also noted that innovations will be adopted more quickly if they have higher relative advantage, compatibility, trialibility, and observability and lower complexity.

DOI theory elements:
Social system

Rogers (1995) defines a social system as "a set of interrelated units that are engaged in joint problem-solving to accomplish a common goal" (p. 23). The structure of a social system can affect the diffusion of an innovation due to the norms within that system, which can be a barrier or promoter of change, and the change agents and opinion leaders in the system. The most innovative change agent may be seen as radical within the system and, therefore, may not be as influential as someone who is more integrated into the mainstream. Opinion leaders are the informal leaders who have influence in their system over others' behaviors. Part of their influence is due to adhering to system norms. Whether a system is resistant or welcoming to change is reflected in the opinion leaders' reactions.

In the case of rape prevention, the social system may be the people and institutions within a geographic area being served by a prevention program or a priority population that spans multiple physical settings.

Empirical evidence for DOI

Empirical studies that have tested the effectiveness of DOI theory principles have predominantly focused on HIV prevention. Although HIV prevention attempts to change different behaviors than sexual violence prevention, the two efforts share a number of common issues including the need for multi-level prevention strategies and the shame and stigma that surround both HIV and sexual violence. The empirical evidence to date supports three key aspects of DOI: the influence of peer opinion leaders, the need for saturation, and the influence of peer normative behaviors on individuals' behaviors.

Overall, a critical element of the theory of rape prevention as illustrated in *Creating Safer Communities: Rape Prevention Education Model of Community Change* is that changing community norms will lead to changes in individuals' behavior. Evidence in support of this idea is found in numerous studies of HIV prevention where it has been found that men who perceive other men as accepting safer sex practices and engaging in safer sex practices are more likely to engage in lower risk practices themselves. This general finding has been documented with urban

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samples (Kelly et al., 1990a), rural samples, Kelly et al., 1990b), Latino men (Somerville, Diaz, Davis, Coleman, & Taveras, 2006), and young men (Kegeles, Hay, & Coates, 1996).

Implications for SV prevention

Effective diffusion of an innovation throughout a social system requires careful consideration of how the innovation is disseminated or communicated, how developers of the innovation and people within the social system work together, and the greater social context (Glanz, Rimer, & Lewis, 2002).

Better information occurs face to face between two people who are similar. To develop a favorable attitude toward an innovation and because of the uncertainty and risk associated with innovation, people seek information that evaluates the effects of the intervention. This information is most influential when it is based on the subjective evaluations of others who are similar to the person. While mass media communication can reach a lot of people, it is probably only a good strategy for raising awareness and for reaching "early innovators." Mass media may not contain enough information to get "late innovators" to the stage of decision-making around accepting or rejecting the innovation. Consequently, rape prevention practitioners may want to think carefully before embarking on high-cost media campaigns. Resources may be better used in face-to-face dissemination in a variety of settings. Because more effective dissemination (i.e., persuasion that leads a person toward a positive attitude about the innovation) occurs when people are similar, dissemination of innovations to build prevention skills should not be the sole responsibility of rape prevention programs. They will not be as persuasive to people who are unlike them, personally or professionally. It may be more effective to collaborate with people and opinion leaders who can be links between the rape prevention program and the priority population.

It is also important to remember that people who adopt the innovation first are usually considered radical within the system, have high exposure to mass media, and have higher education levels (Glanz et al., 2002). Because they are perceived as radical, they may not be good at disseminating the innovation to someone else in a way that results in behavior change. On the other hand, opinion leaders are perceived as fitting in the system, often adopt the innovation earlier than most, and are able to influence the overt behaviors of the intended audience. Consequently, while rape prevention programs may be the change agents, it is important that others (perhaps other social service agencies and both formal and informal leaders in the community) be involved in the dissemination of information about rape prevention. The use of others in the community can also help to make connections between rape prevention innovations and other innovations that are already accepted and perceived as important.

In considering the goals of rape prevention innovations, it is important to consider that the tendency of change agents is to focus on increasing awareness, which is simply awareness of the innovation (e.g., the need for sexual violence prevention) (Glanz et al., 2002). However, how-to knowledge is the most important element in whether or not someone decides to adopt the innovation. Therefore, strategies like bystander intervention which incorporate a how-to component are critical in the actual adoption of a commitment to rape prevention and subsequent changes in

institutional and individual behaviors. Strategies that emphasize primary prevention are often slower to adopt and more difficult to diffuse than other innovations because they are less likely to be perceived as advantageous due to the inability of people to see a lack or absence of something and there is a longer time lag between the adoption of the innovation and the intended results (Glanz et al., 2002).

Individual Behavior Change Theories

Introduction

Sexual violence occurs in a specific social context that condones or promotes violent behavior. However, most individuals living in that context do not commit overt acts of sexual assault. Therefore, sexual violence is both a social act and an individual act. Consequently, the prevention of sexual violence must take into consideration both social norms and individual behaviors. Changing norms about sexual violence and the quality of relationships within a community through strategies based on DOI Theory should provide the necessary context to promote changes in individual behavior. It is important to consider as well what the process of individual behavior change is so that process can be promoted and reinforced.

The second set of theories that underlie the Centers for Disease Control and Prevention's document *Creating Safer Communities: Rape Prevention Education Model of Community Change* and the corresponding *Activities Model for Primary Prevention of Sexual Violence* are theories about changes in individual behaviors. There are three main theories:
1. Theory of Reasoned Action
2. Theory of Planned Behavior
3. Health Belief Model.

Theory of Reasoned Action

The Theory of Reasoned Action (TRA) (Fishbein, 1967; Ajzen & Fishbein, 1980) is used to predict behaviors that are under the voluntary control of the individual.

The key element of the Theory of Reasoned Action is the intent to perform the behavior (see Montano & Kasprzyk, 2002 for a review). Behavioral intention has two components: *attitude* toward the behavior and *subjective norms* (Biglan, 1995; Montano & Kasprzyk, 2002).

Attitude toward the behavior is composed of behavioral beliefs (i.e., beliefs about outcomes or attributes of engaging in the behavior) and evaluation of behavioral outcomes (Montano & Kasprzyk, 2002). How favorably disposed a person is to a specific behavior can be predicted by her/his attitudes toward characteristics associated with the behavior. For example, negative attitudes toward smoking are in part a function of negative attitudes toward cancer (Biglan, 1995).

Individual behavior is also influenced by subjective norms. Subjective norms are composed of normative beliefs (i.e., beliefs about whether others approve or disapprove of the behavior) and motivation to comply with others' beliefs (Montano & Kasprzyk, 2002). Therefore, TRA theory argues that in order to change any behavior, cognition, or attitude you must influence the environment (Biglan, 1995).

Theory of Planned Behavior

The Theory of Planned Behavior (TPB) (Ajzen, 1991) is an extension of the Theory of Reasoned Action. This extended theory also states that intention is the determinant of behavior. In addition to the role of attitudes and subjective norms, the TPB conceptualizes behavioral intent as also being a function of *behavioral control* (Montano & Kasprzyk, 2002). Behavioral control consists of *control beliefs* (i.e., the

perceived likelihood of conditions that facilitate or constrain the behavior occurring) and *perceived power* (i.e., the perceived effect that those conditions have in making the behavior difficult or easy). The Theory of Planned Behavior states that behavioral intentions are important determinants of actual acts when the behavior is highly under one's own control (Montano & Kasprzyk, 2002). In other words, even if someone is motivated to perform a behavior, he/she may not do so if the behavior is prohibited or limited by the environment.

Health Belief Model

The final theory that underlies the model of rape prevention is the Health Belief Model (Becker, 1974). The basic idea of this model is that "People will take action to prevent, to screen for, or to control ill-health conditions if they regard themselves as susceptible to the condition, if they believe it would have potentially serious consequences, if they believe that a course of action available to them would be beneficial in reducing either their susceptibility to or the severity of the condition, and if they believe that the anticipated barriers to (or costs of) taking the action are outweighed by the benefits" (Janz, Champion, & Strecher, 2002, p. 47-48). According to this theory, in order for individuals to change their behaviors they must "…feel threatened by their current behavioral patterns…and believe that change of a specific kind will result in a valued outcome at acceptable cost. They also must feel themselves competent (self-efficacious) to overcome perceived barriers to taking action" (Janz et al., 2002, p. 51).

Integration of individual behavior change theories

In the early 1990s the National Institute of Mental Health convened a workshop of people representing various theories of individual behavior to discuss the points of consensus between different theories, including the Theory of Reasoned Action and the Health Belief Model.

Workshop participants identified three necessary and sufficient factors that influence the occurrence of a behavior: (1) positive intention to perform the behavior (e.g., a commitment was made), (2) no environmental constraints that make the behavior impossible, and (3) the person has the necessary skills (Fishbein et al., 1991).

They identified five additional factors that influence how strong the intention to perform a behavior is: (1) the benefits of having a positive attitude toward the behavior outweigh the costs, (2) the person perceives more social normative pressure to perform the behavior than not to perform it, (3) the person sees the behavior as more consistent than inconsistent with their own self-image, (4) the person believes they have the capability to behave in the intended manner, and (5) the person's emotional reaction to the behavior (Fishbein et al., 1991).

In synthesizing theories of individual behavior it was noted that while social norms in support of the behavior are necessary, their impact does not depend on direct reinforcement. "One may often perform a behavior because one believes that an important other thinks one should perform that behavior, even though the important other may never know whether one has or has not performed the behavior (Fishbein et al., 1991, p. 9).

Empirical evidence for individual behavior change theories	Empirical studies on changing sexual behaviors provide evidence in support of the theories of individual behavior and behavior change. There is evidence that the intention to perform a behavior influences actual behaviors. This has been seen in the relationship between the intent to use condoms and actual condom use among samples of predominantly Latina and African American adolescent mothers (Koniak-Griffin & Stein, 2006), people living with HIV (Crepaz & Marks, 2002), young inner-city women (Posner, Bull, Ortiz, & Evans (2004), and a meta-analysis of HIV studies (Albarracin, Johnson, Fishbein, & Muellerleile, 2001). In turn, evidence that attitudes influence the intent to engage in safer sex behaviors has been found in samples of junior high, high school, and college students (Serovich & Greene, 1997) as well as among adolescent mothers (Koniak-Griffin & Stein, 2006). There is also evidence that higher subjective norms in support of safer sex practices and higher perceived use of condoms among peers are associated with greater use of condoms (Albarracin et al., 2004).
Implications for SV prevention	In applying these theories of individual behavior change, it has been argued that in order to change behavior it is important to have reinforcing or aversive consequences in place (Biglan, 1995). Part of increasing reinforcement involves increasing social approval for behavior and decreasing reinforcement for the competing behavior involves taking away the benefits of the behavior you are trying to prevent (Biglan, 1995). Additionally, in order to create change there is a need for power to influence the consequences of a practice and the communications that affect the framing of the practice (Biglan, 1995).

In thinking specifically about sexual violence prevention, applying the theories of individual behavior gives rise to a number of considerations. First, severe negative consequences need to be associated with committing acts of sexual violence. Because an attitude toward a behavior can be influenced by something associated with it, associating sexual violence with severe negative social consequences (e.g., deterrence strategies such as prosecution, social ostracism, effects on daily life, etc.) could make the attitude toward committing sexual violence more negative. Second, social norms must be changed so that there is pressure not to engage in sexual violence or objectification of and power and control over women and pressure *to* engage behaviors that promote safety, equality, and respect. Not only must there be social norms regarding non-violence, but there must also be clear and consistent sanctions when the norms are violated. This is where intervention efforts such as prosecution compliment prevention efforts that promote the desired behavior.

Additionally, the physical and social environment must constrain rape-related behaviors and promote behaviors that lead to safety, equality and respect. These constraints will come about through changing the cultural context so that individuals who would condone or commit acts of sexual violence are more susceptible to more severe consequences for those attitudes, intents, and behaviors. This may involve making community organizations realize the threat to society if they do not engage in sexual violence prevention work, reducing the cost of organizations engaging in this work, and increasing individual and organizational self-efficacy through building skills in prevention practices. It may also involve bystander intervention training in which individuals increase their sense of efficacy in intervening in high-

risk situations or in situations that contribute to a rape-supportive culture, minimizing the personal costs of intervening, and increasing their awareness of potential threats if they fail to intervene.

How the theories are illustrated in the RPE theory model

In *Creating Safer Communities: Rape Prevention Education Model of Community Change* the theories of individual behavior are reflected in the process of community norms leading to individuals changing their beliefs and behaviors. Such change begins with community members perceiving that the norm is to be non-violent. Additionally, they perceive pressure to conform with those non-violent norms. They also perceive social rewards for behaviors that conforming with non-violent norms and social and legal consequences for failing to conform. Based on those perceptions, they will then behave in ways that are consistent with the norms of non-violence.

Community Readiness

Rationale for building community readiness

Given the multi-level etiology of sexual violence and the need for changing community norms, sexual violence prevention requires greater levels of involvement from a wide range of stakeholders in the community. Although local rape crisis centers should remain a core part of the movement to end sexual violence, a wider ranger of community stakeholders must take on more active roles in prevention work. The prevention of sexual violence must become part of the activities and long-term goals of many community agencies and associations.

Foundation of theory of community readiness

Originally developed to assess a community's readiness for substance abuse prevention programming, the theory provides a framework that can help in understanding the relationship between the prevention program and community dynamics and in suggesting methods to overcome challenges posed by those dynamics (Plested, Smithman, Jumper-Thurman, Oettings, & Edwards, 1999).

The theory of community readiness is based on a number of broader theories of community change including the ecological principle of adaptation (Burgoyne & Jason, 1991; Goodman et al., 1996; Kelly, 1968), psychological readiness for treatment (Prochaska, DiCelemente, & Norcross, 1992) and community development (Donnermeyer et al., 1997), the process of social action (Beal, 1964), and diffusion of innovations (Rogers, 1995). (For a more detailed review of the theoretical basis of community readiness theory, see Engstrom, Jason, Townsend, Pokorny, & Curie, 2002).

The community readiness model synthesizes these prior theories and introduces additional considerations of community processes that pertain specifically to prevention of mental health or social problems. The resulting model assesses communities along **six dimensions** and **assigns the community to one of nine stages** (Plested et al., 1999; Donnermeyer et al., 1997; Oetting et al., 1995).

Six dimensions of community readiness

The six dimensions are:
1. community efforts such as programs, activities, and policies
2. community knowledge of the efforts
3. leadership, including appointed leaders and influential community members
4. community climate
5. community knowledge about the issue
6. resources related to the issue such as people, money, time, and space

Nine stages of community readiness

The nine resulting stages are:
1. *No Awareness:* the issue is not recognized by the community or its leaders as a problem
2. *Denial:* the community feels that the problem does not exist or that change is impossible
3. *Vague Awareness:* the problem is recognized but there is no motivation for acting

4. *Preplanning:* the problem is recognized and there is common agreement that something needs to be done
5. *Preparation:* active planning is under way
6. *Initiation:* a program has been implemented
7. *Stabilization:* one or two programs are operating and are expected to continue for the foreseeable future
8. *Confirmation/Expansion:* the limitations of the existing programs are recognized and attempts are underway to improve them
9. *Professionalization:* prevention efforts are marked by sophistication, training, and effective evaluation
10.

Implications for SV prevention

Because different organizations or associations within a community may be at different levels of readiness, it can be useful to assess community readiness at multiple levels:

- readiness of the rape prevention program itself to engage in primary prevention;
- readiness of specific organizations or associations to collaborate in that work and to take on rape prevention within their own activities and goals (e.g., schools and universities, medical providers, faith communities, youth recreation, social organizations and associations, etc.);
- readiness of sub-communities (e.g., neighborhoods, ethnic communities, etc.); and
- readiness of the broader community as a whole to coordinate and sustain their efforts.

Based on this assessment, a rape prevention program can identify the stage of readiness of key organizations and sub-communities, determine the likelihood of a program's effectiveness, coordinate the allocation of finite resources, and develop and implement strategies to increase readiness.

Origin of this document

This document was adapted from *Creating Safer Communities: The Underlying Theory of the Rape Prevention and Education Model of Social Change*, a literature review conducted by Stephanie M. Townsend, Ph.D. and Rebecca Campbell, Ph.D. for the Centers for Disease Control and Prevention.