Pathways to Empowerment in Substance Abuse Prevention: Citizen Participation, Sense of Community, and Police Responsiveness in an Urban U.S. Setting

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Abstract

Community-based substance abuse prevention initiatives often rely on the empowerment of community residents. Few studies, however, have examined predictors of empowerment in substance abuse prevention contexts. This study tested a path model that included two environment-related variables (i.e., residents' awareness of community substance abuse problems and perceived incivilities in their community), two variables representing residents' perceptions of their community (i.e., sense of community and perceived police responsiveness to drug crime) and citizen participation as predictors of the intrapersonal component of psychological empowerment. The model was found to provide a good fit to the data from a random sample of urban residents (n=283) who participated in an evaluation of a National Institute of Justice community policing initiative in the Southwestern United States. Findings suggest that empowerment-based interventions aimed at preventing substance abuse and its related harmful consequences should incorporate activities that specifically address sense of community and police responsiveness to drug crime. Limitations and directions for future research are discussed.

Introduction

Empowerment refers to a process through which individuals, organizations, and communities gain greater control, efficacy, and social justice. One way to promote empowerment among community residents is through active, meaningful participation in groups and activities. Participation has been found to promote empowerment and social change in a variety of contexts, such as a community internet project for refugee women in the United Kingdom (Siddiquee & Kagan, 2006), an ecological intervention for people experiencing mental illness in Portugal (Ornelas, Vargas-Moniz & Duarte, 2010), and health promotion projects of the World Health Organization's (WHO) European Healthy Cities Movement (Heritage & Dooris, 2009). Although planning and decision-making in these contexts may differ, it is clear that community residents can become empowered through the participatory process and may become vested in activities designed to address community needs. Few empirical investigations in the substance abuse prevention field, however, have systematically examined those processes that may promote empowerment among community residents (Hardina, 2006; Hughey, Peterson, Lowe & Oprescu, 2008).

This study focuses on the intrapersonal component of psychological empowerment (PE). Given the study's emphasis on PE, it may be useful to provide a brief review of the construct. Zimmerman (1995) described a model for PE that included three interrelated components: intrapersonal, interactional, and behavioral. Intrapersonal PE was conceptualized as involving concepts such as individual competence, efficacy, and mastery. Interactional PE involves an individual's critical awareness of the sociopolitical environment, while the behavioral component concerns individual actions expected to affect outcomes. Based on this framework and the work of Zimmerman and Zahniser (1991), several subsequent community-based studies (e.g., Carballo-Dieguez et al, 2005) have emphasized intrapersonal PE and operationalized the construct as residents' self-perceptions of their skill at organizing a group of people and ability to influence policy decisions in a local community. In this present study, we focused on intrapersonal PE and measured it in a way that was consistent with prior research.

Figure 1 presents the conceptual framework for the current study. As shown in Figure 1, the framework included two environment-related variables (i.e., residents' awareness of community substance abuse problems and perceived incivilities in the community), two variables representing residents' perceptions of their community (i.e., sense of

Figure 1. Conceptual Framework for the Study
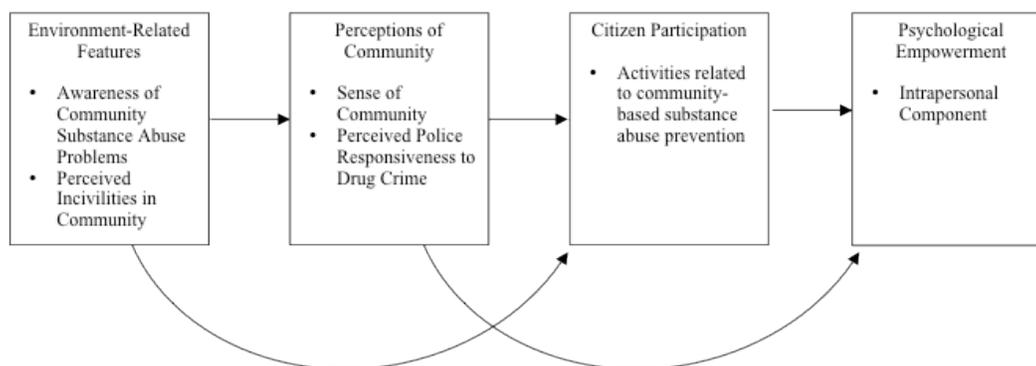
community (SOC) and perceived police responsiveness to drug crime) and citizen participation (CP) as antecedents of intrapersonal PE. Our study applied this framework to extend prior community-based prevention research by testing a path model predicting intrapersonal PE in a substance abuse prevention context in the United States.

One critical link in our framework is between CP and PE. The relationship between these two variables is one of the most empirically supported predictions of empowerment theory. This relationship has been verified with cross-sectional studies (e.g., Schulz, Israel, Zimmerman & Checkoway, 1995), longitudinal studies (e.g., Itzhaky & York, 2000), and most recently with a cross-lagged panel analysis (Christens, Peterson & Speer, in press) that was conducted to confirm the direction of causality from CP to intrapersonal PE. Studies have generally found that, as expected, individuals with greater CP tend to experience higher levels of PE. Some researchers, however, have found that the specific route from participation to PE is complex and elements of PE are sometimes difficult to achieve. Le Bosse et al. (1999), for example, showed how participation might not necessarily lead to empowerment, while Itzhaky and Schwartz (1998) found that unique elements of participation had differential effects on various facets of PE.

Another important link in our framework is between residents' perceptions of their community and their participation in community groups and activities. Residents' SOC (Foster-Fishman, Pierce & Van Egeren, 2009; Hughey et al., 2008; Long & Perkins, 2003; Ohmer, 2007) and their perceptions of the responsiveness of local institutions to community problems (Speer, Jackson & Peterson, 2001; Speer & Peterson, 2000) have been shown to be related to CP as well as PE. Speer and Peterson (2000), for

example, found that community residents who were more engaged with community organizations and who had a stronger SOC also tended to perceive local institutions (i.e., police and city government) as more involved in community life and they tended to report higher levels of CP. Elsewhere, Hughey et al. (2008) showed that SOC predicted intrapersonal PE after controlling for a variety of other variables, such as demographics, participation, and the organizational characteristics of the community groups in which people volunteered.

Our framework also shows the hypothesized effects of environment-related features on residents' perceptions of their community as well as their levels of CP. One important feature involves community residents' awareness of neighborhood problems (Foster-Fishman et al., 2009; Peterson & Reid, 2003). In a study of a community-building initiative in Michigan, Foster-Fishman et al. (2009) found that, among residents who were not neighborhood leaders, those individuals who perceived neighborhood conditions (e.g., abandoned buildings) as more of a problem tended to report greater participation in community organizations and community action activities. Similarly, Peterson and Reid (2003) showed that residents who were more aware of community problems, such as people selling drugs in their neighborhood, were more likely to report greater participation in substance abuse prevention activities. Another key finding of that study was that residents' awareness of community problems had a paradoxical effect on their CP. Residents' awareness of community problems was found to serve as a catalyst for their participation, although the effect was diminished by way of the negative influence that awareness also had on their neighborhood SOC.

A second feature of the environment that is included in our framework involves the level of actual and

perceived physical incivilities in a community (e.g., vandalism, litter, and graffiti). Incivilities have been shown to influence community residents' participatory behaviors (Perkins, Brown & Taylor, 1996; Perkins, Florin, Rich, Wandersman & Chavis, 1990). To better understand the uneven distribution of participation, an ecological framework was developed by Perkins et al. (1990) to explain the effects of social and physical factors on residents' participation in block associations. They found that block demographics, crime-related problems, perceptions and fears were not associated with CP, but rather a combination of "catalysts" (e.g., poorly maintained properties) in the physical environment and "enablers" (e.g., block satisfaction) in the social environment seemed to encourage the participation of community residents in block associations.

The present study extends previous community-based prevention research by testing a path model predicting intrapersonal PE. If relationships among the variables are found, it would point to potentially useful intervention targets for community psychologists developing prevention campaigns to address substance abuse. Efforts to promote residents' affective ties to their communities (i.e., a strong SOC) and beliefs that institutions are responsive to the problems affecting their lives may be needed to ensure active participation of community residents in interventions designed to change policies and conditions that can ameliorate the harmful consequences of substance abuse in communities.

Method

Sample

Data were collected in the year 2000 as part of a larger community survey designed to evaluate the effects of a National Institute of Justice (NIJ) community policing initiative located in a southwestern U.S. urban city. The initiative targeted specific neighborhoods in the city, and a total of 283 randomly selected residents from the target neighborhoods participated in the survey (response rate=64%). The sample was 50.9% female, 45.2% Hispanic, 24% Caucasian, 18.3% African American, and 7.2% Asian. Regarding the age of respondents, 21% of the sample was between 18 and 34 years, 24.2% was 35-44 years, 28.8% was 45 to 64 years, and 26% was age 65 or older. Forty-five percent of the sample earned less than $20,000 annually, 41.4% earned $20,000 to less than $40,000 annually, and 14% earned more than $40,000 annually. Educationally, 26.6% of the sample earned less than a high school diploma, 29.1% had earned a high

school diploma or equivalent, 26.6% had some college experience, and 17.7% had earned a college degree.

Measures

Eight variables were examined in this study. Intrapersonal PE served as the criterion. The main predictors of interest in this study were: (a) awareness of community substance abuse problems; (b) perceived incivilities in the community; (c) SOC; (d) perceived police responsiveness to drug crime; and, (e) CP. We also included two demographic variables, education and income, which may be considered proxies for social position and expected to influence participation and PE. All of the measures for the main variables in this study were based on scales used in previous research. Except for demographics, scale scores represented the mean of items comprising each measure.

Criterion. The measure of the intrapersonal component of PE used in this study was an abbreviated version of the Sociopolitical Control Scale (SPCS) developed by Zimmerman and Zahniser (1991). They found support for the construct validity of the measure by demonstrating that it varied in expected ways with CP in three different samples that varied by age, life stage and geographic location. Items assessed feelings of political efficacy (e.g., People like me are generally well qualified to participate in the political activity and decision-making in our country) and perceived leadership competence (e.g., I can usually organize people to get things done). Included in this study was an eight-item abbreviated version of the measure, which was answered using a five-point Likert-type scale. Cronbach's alpha was .66 for the modified SPCS in this study.

Predictors. The measure of awareness of community substance abuse problems was based on the work of Peterson and Reid (2003). It included five items that asked respondents to indicate, using a four-point scale, how often they saw people engaged activities such as selling illegal drugs, trying to buy drugs, and using drugs in public places. Reliability for this measure was .85. The measure of perceived incivilities in the community was based on research conducted by Perkins and Taylor (1996) and Perkins, Brown and Taylor (1996). Six four-point Likert-type items were used to ask respondents the extent to which they observed incivilities in their neighborhood (e.g., litter, trash or graffiti). Reliability for this was .83. Sense of community was assessed using three items from Hughey, Speer & Peterson's (1999) measure of the construct that referenced

respondents' city (e.g., Living in (city name) gives me a sense of community; (City name) is a good place for me to live). Reliability for this measure was .71. Perceived police responsiveness to drug crime was based on the work of Speer, Jackson & Peterson (2001). The scale included three items that asked respondents to indicate, using a five-point Likert-type scale, the extent to which they agreed or disagreed with statements concerning police reaction to drug crime in their neighborhood (e.g., The police really work with neighborhood residents to reduce drug crime in my neighborhood). Reliability for this measure was .72. The measure of CP was adapted from a measure used in previous research (Speer & Peterson, 2000). Eleven items asked respondents to indicate their frequency of involvement over the past year (i.e., not all involved, 1 time, 2 to 4 times, 5 or more times) in activities related to community-based substance abuse prevention (e.g., attended a meeting where police participated in discussing local crime problems, attended a public meeting to pressure for a policy change). Cronbach's alpha was .88 for the CP scale in the present study.

Procedures

Using a telephone directory in electronic format, all residences with phone numbers in the targeted areas were selected as the population to be studied. A simple random sample was then selected. The survey was administered by trained surveyors through telephone interviews typically lasting between 15 and 35 minutes in length.

Results

Structural equation modeling (SEM) was performed with AMOS 16.0 (Arbuckle, 2007) to test the model that included only observed variables. Maximum likelihood estimation was used to analyze the variance-covariance matrix. The fit indices that we used are widely accepted and considered to be robust measures of fit (Hoyle, 1995). These included the discrepancy chi-square (X^2), the goodness-of-fit index (GFI), the Adjusted Goodness of Fit Index (AGFI), the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), and the Root Mean Square of Error Approximation (RMSEA). Non-significant X^2 values and higher values (i.e., greater than .90) on the GFI, AGFI, CFI, and TLI indicate acceptable fit, while smaller RMSEA values are desirable. According to Browne and Cudeck (1992), guidelines for interpreting the RMSEA include: <.05 = good fit; .05 to .08 = acceptable fit; .08 to .10 = marginal fit; > .10 = poor fit.

Figure 2 presents the model tested in this study. This model was found to fit well for the sample, $X^2(16) =$

23.60, p=.10; GFI=.98; AGFI=.95; CLI=.97; TLI=.94; RMSEA=.04, and accounted for 27% of the variance in intrapersonal PE and 22% of the variance in CP. The path coefficients in Figure 2 represent statistically significant standardized beta weights. As can be seen in Figure 2, results of the SEM indicated that CP in substance abuse prevention was positively and strongly related to PE. Individuals who reported greater participation in community groups and activities that were intended to prevent substance abuse and its harmful consequences tended to have higher levels of PE. Figure 2 also shows that several of the other predictors had an influence on intrapersonal PE through their effects on CP. Specifically, residents' awareness of community substance abuse problems was directly and positively related to CP. Individuals who had greater awareness of substance abuse problems in their community tended to participate more in community groups and activities. Awareness of community substance abuse problems also affected CP indirectly through its effect on perceived police responsiveness to drug crime. Importantly, however, awareness of community substance abuse problems was negatively related with perceived police responsiveness to drug crime. Individuals with greater awareness of substance abuse problems in their community tended to perceive police as being less responsive to drug crime, and individuals who perceived police as being less responsive to drug crime tended to participate less in their community. This negative indirect path resulted in a reduction in the effect of awareness of community substance abuse problems on CP.

Results shown in Figure 2 suggested a similar pattern of effects for perceived incivilities in the community, which had a direct and positive effect on CP. Individuals who perceived more incivilities in their community tended to participate more in substance abuse prevention activities. Perceived incivility in the community was also negatively related with SOC. Individuals who perceived more incivilities in their community were more likely to have lower SOC. Individuals with lower SOC were then more likely to perceive police as being less responsive to drug crime, and individuals who perceived police as being less responsive to drug crime tended to participate less in their community. Demographics were also found to be related to participation and intrapersonal PE. Individuals with higher education tended to report greater levels of participation and PE, while individuals with higher income were more likely to have higher intrapersonal PE.

Figure 2. Path Model Predicting Psychological Empowerment.
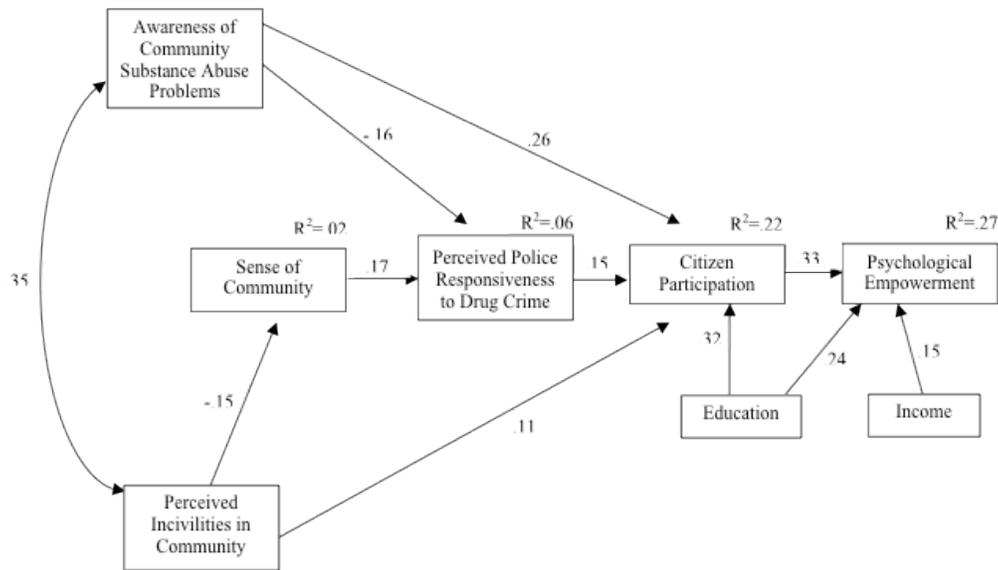
Fit Indices for the Model: $X^2(16) = 23.60$, p=10; GFI=.98; AGFI=.95; CLI=.97; TLI=.94; RMSEA=.04

Discussion

The purpose of this study was to test a path model that included predictors of individual-level empowerment in a U.S. substance abuse prevention context. Community-based prevention initiatives often rely on increasing consciousness, participation, and empowerment among community residents, yet few studies have empirically tested the processes that might facilitate or impede these crucial factors in substance abuse prevention interventions. Our study contributes to the prevention literature by examining a path model that included variables that were hypothesized as pathways to intrapersonal PE among community residents. Results of our study showed a good fit of the hypothesized model to the data from a sample of randomly selected community residents who participated in an evaluation of an NIJ-funded community policing initiative. Importantly, we found that residents' awareness of community substance abuse problems and their perceptions of physical incivilities in the community had paradoxical effects on CP in substance abuse prevention and, subsequently, their levels of empowerment. We found that although community residents' increased awareness and perceptions of incivilities appeared to be a catalyst for CP and empowerment, these positive effects were lessened through the negative indirect effects that these variables also had on residents' SOC and their perceptions of police responsiveness to drug crime in their community.

These findings are consistent with previous research (Foster-Fishman et al., 2009; Peterson & Reid, 2003) pointing to the critical interplay between awareness of community problems as a call to action and frustration with the lack of community-level resources to adequately intervene. As residents become more conscious of the magnitude of incivilities and the substance use and abuse issues amongst their neighbors, they may begin to feel less of a bond to the neighborhood and a greater sense of disappointment with existing efforts. Prevention practitioners, therefore, must consider substance abuse prevention and intervention initiatives within a broader socio-environmental context, recognizing that such problems are inextricably intertwined with other aspects of community life, including the neighborhood physical environment and the actions of public institutions, like the police. Initiatives that seek to raise citizen awareness and subsequent action without explicit efforts at also involving formal neighborhood organizations and interconnections may, paradoxically, undermine the full strength of a citizen response.

To address this perspective, prevention strategies emphasizing relationships between citizens and community organizations have been proposed (Kegler, Painter, Twiss, Aronson, & Norton, 2009; Ornelas, Vargas-Moniz, & Duarte, 2010) as foundations on which to build successful initiatives. Efforts to document or enhance the social validity of existing interventions may be especially useful (Francisco & Butterfoss, 2007). Such efforts may

elevate SOC and, in the case of citizen-police collaborative arrangements, may serve to lessen the negative perceptions of police responsiveness and the ensuing dampening effect on CP. Of course, only through the success of these partnerships will a positive impact on citizen SOC and confidence in police responsiveness arise. Several factors have been identified as critical to the success of community change efforts (Fawcett, Francisco & Schultz, 2004), such as agreement between community residents and institutional leaders on a clear vision and targeted mission. Explicit attention should be given to specific community-partnership features that might be modified to increase the likelihood of success and build confidence in police responsiveness as a result.

Research on empowerment in community organizations (Maton, 2008; Peterson & Zimmerman, 2004) also suggests that intentional investment in intraorganizational (e.g., opportunity role structure) and interorganizational (e.g., access to multiple networks of organizations) characteristics may lead to more positive outcomes. Similarly, literature on SOC in community organizations (Hughey, et al., 2008) and the emotionally intelligent handling of volatile or potentially disturbing issues (Wolff, Druskat, Koman, & Messer, 2006) highlights the need to recognize, anticipate, and address possible conflicts in collaborations between community organizations and institutions like the police as they confront crime or substance abuse. Although our findings on the indirect link between SOC and PE did differ from previous research (e.g. Hughey et al., 2008), it should be recognized that our current study included only one subscale which relied on the larger city as a referent rather than an individual's community organization or neighborhood. Regardless, our findings suggest that intentional efforts may be needed to support partnerships, increase the probability of success, and promote confidence in the participating institutions and individuals.

A second factor for consideration in initiative building is the leveraging of such police-citizen partnerships to increase the access of both groups to other community resources and organizations (Reisig & Parks, 2004). This may enhance SOC and connectedness and may also allow for the identification and confrontation of substance abuse problems and other incivilities on multiple fronts. Although substance abuse problems have clear implications for police work, there are both environmental and psychological aspects that are outside the scope of traditional police endeavors, and, therefore, are more amenable to intervention from

other sources. The community-police organization as an intermediary institution places citizens in relationship with those resources crucial to success and enables interventions and endeavors beyond the usual niche breadth of police organizations or customary community policing efforts. This may increase the likelihood of success and certainly expands the possibilities for intervention. For example, Speer et al., (2003) described a preventive intervention that began with concern about substance use and expanded to address drug-related crime, violence, limited policing resources, and abandoned housing. The original citizen partnership grew to include the housing authority, community development corporations, banks, the fire department, and elected officials. Together, these organizations were able to have far-reaching environmental impacts, reducing abandoned housing, police expenditures and drug-related crime and violence. In addition, Speer et al. (2003) found that as the partnerships' networks increased, the work touched a broader number of potential participants and institutions, and CP increased. Furthermore, it seems reasonable to assume that citizens are also weighing the responsiveness of other community institutions. As relationships with those institutions are built within a community intervention context, citizen perceptions of those organizations as interested and involved parties in addressing community problems will likely improve.

There are several limitations to this study which should be recognized. One limitation is external validity. The telephone directory procedure has been criticized as being biased against people without telephones and those who opt for the use of mobile phones in lieu of land lines. This may have resulted in the underrepresentation in the sample of participants who differ from land line telephone owners in important ways, such as home ownership, age, and residential stability, which could have critical implications for a study of CP and PE since home owners and long-term residents may be more likely to invest time and energy in their communities than renters or short-term residents. In addition, the neighborhoods from which the sample was drawn had been targeted by a NIJ award to implement a community policing initiative. Such initiatives are based on the systematic use of community police partnerships to engage in problem-solving measures and address issues proactively. The award of this grant may have made the police presence and its responsiveness more salient to community residents and also may have impacted resident participation. This factor may limit the generalizability of the study's findings to communities without similar

initiatives. Furthermore, information regarding the sample's representation of the neighborhoods is lacking. Therefore, we are unable to assert the extent to which the sample adequately reflects the diversity within the host neighborhoods.

There are also several limitations to the measures used in this study. First, the measures of the variables relied on individual's self-reports. Although self report measures are commonly used in survey research, it has been argued that actual individual behaviors (e.g. participation) may differ from those reported. In addition, the results of studies using objective ratings of neighborhood conditions may be different from those of our study which relied on perceptions of incivilities. The measure of awareness of community substance abuse problems may also be biased by virtue of people not wanting to admit witnessing drug use for fear of being personally implicated in these practices. This measure could also be biased by peoples' ability/ willingness to actively observe behaviors in their communities. People who are homebound or who do not feel safe engaging in community life may not actually be able to observe drug-related behavior; however, they may believe it occurs, and this may impact their willingness to participate. Furthermore, the SOC measure used in this study was limited to one dimension and could be confounded with community satisfaction, which should be considered a separate and distinct construct. Future work should use a fully validated scale of SOC to better test relationships between the variables analyzed in this study. Additionally, there were several other demographics (e.g., gender) and aspects of culture that were not considered in this study. The large representation of residents of Hispanic origin in our sample, for example, may have influenced our results and have implications for measurement of PE. Future research should test the generalizability of our findings with different subgroups and consider a measure that may more adequately capture culturally-based understandings of empowerment.

Despite its limitations, our study's findings were reasonably consistent with previous research demonstrating relationships between environment-related variables, SOC, CP, and PE. The paradoxical effect of the awareness of community problems raising participation directly and reducing participation indirectly suggests that strategies to address resident perception of community agencies and bond to community are critical intervention points for prevention planners. Residents' awareness of substance abuse problems may foster feelings of resentment toward community police officers and

negatively affect CP. Community policing initiatives should recognize this potential effect and encourage activities that strengthen SOC and public perceptions of police responsiveness to crime.

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