Crime and Community Dynamics in Rural West Virginia Communities

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There is a tendency for sociologists and criminologists to study crime in urban contexts rather than rural. Theories of urban crime do not necessarily fit these rural areas. For example, collective efficacy in urban neighborhoods has been found to be inversely related to crime and fear of crime. In rural areas, this connection has been difficult to study because neighborhoods are more difficult to define. In this study, we expand the notions of collective efficacy in neighborhoods by introducing community dynamics which are latent psychodynamic processes that relate to expectations residents have of each other and of the police. These psychodynamic processes include levels of interdependence, conflict, and dependence. Using a social media survey method from residents in rural West Virginia, we found that high levels of interdependence lead to an increase in quality of life and decreases in risk and fear of crime, while conflict leads to a decrease in quality of life and an increase in risk and fear of crime.

Introduction

The US Census defines urban areas as densely developed territory that encompass residential, commercial, and other nonresidential areas. Rural areas encompass all population, housing, and territory not included in an urban area[1]. These definitions are self-identified by the respondents in our survey. Most criminological theories focus exclusively on urban neighborhoods; however, this is a problem for criminologists who are interested in understanding the nature of crime in rural areas. Rural areas are different from urban centers in several ways, including geographic isolation, availability of guns, economic factors, race and ethnicity, and social climate[2]. These differences make the study of rural crime in its own right a necessity.

Rural areas are located on the outer parts of cities or towns, which leaves them secluded and relaxed compared to the fast-paced and densely populated urban lifestyle. Furthermore, residents in rural areas often possess more guns than people in urban areas. In addition, rural economies are often characterized by chronic poverty, wide-ranging inequality, and single-industry work opportunities[2]. Rural areas also lack the racial and ethnic diversity of urban areas. Finally, due to the fact that many individuals in rural areas know each other, rural communities often rely on informal mechanisms of social control compared to urban areas who typically stick to formal mechanisms—i.e., the police[2].

In this paper, we examine how the dynamic processes in rural West Virginia residences affect the risk of being the victim of a crime and the chance that residents will be fearful of crime.

Literature Review

As a starting point in our study of the rural community context and crime, we draw from the work of Sampson and Raudenbush (1999) to help us define and operationalize the concept of collective efficacy. When the goal is a collective goal, then collective efficacy beliefs form[3]. They may be high or low[4]. In this paper, collective efficacy refers to a neighborhood or community's ability to prevent crime using informal controls, i.e., residents watching out for each other. Formal controls generally refer to the police. Sampson et al. (1997) apply collective efficacy to crime by arguing that places with low levels of collective efficacy will likely experience high levels of crime and

disorder[5]. However, there are two main problems with this application. The first problem relates to the environment. City neighborhoods put people in close proximity to each other. One might expect that people in city neighborhoods are placed closer together compared to rural neighborhoods. Face to face contact regularly helps collective efficacy develop. Collective efficacy was defined by Sampson et al (1999) sociologists as 'cohesion among residents combined with shared expectations for social control in public space'[3]. Studies over time in diverse places such as Chicago, Miami-Dade, and Stockholm, Sweden, have found that among neighborhoods with similar characteristics those with higher levels of collective efficacy had significantly lower rates of crime[3, 6, 7].

Agency & Efficacy

Our work follows Bandura who established that there are three main types of human agency: collective, proxy, and personal[4]. Human agency denotes that individuals working along or collectively can adapt to or transform their circumstances. Collective agency means individuals acting in concert with others. Proxy agency means getting someone to act on your behalf. Personal agency refers to the individual's own initiative to implement successful change. With regard to neighborhood policing and crime, Nolan and Hinkle help us see that the type of agency expected is what launches the psychodynamic processes in local places that affect the community atmosphere and its effect on crime[8]. It starts this way: Either [residents] believe the police are primarily responsible for crime control in the neighborhood (proxy agency), or that they (residents) are co-responsible for creating safe conditions in the community (collective agency). The psychodynamic processes relate the expectations the police and community have of each other and whether they live up to them. When the expectation is collective agency (everyone is involved in public safety), and the residents conform to these expectations, an

atmosphere of "interdependence" is created. If residents expect the police (as proxy agents) to protect the community and they are satisfied with the services they provide, and atmosphere of "dependence" appears. In areas where residents expect collective or proxy agency, and the residents or the police fail to meet the standards expected, an atmosphere of frustration or conflict emerge. These three components of a community's atmosphere (interdependence, frustration/conflict, dependence) appear in all places (urban and rural), but in varying levels. For example, if you think of a community metaphorically as a receptacle containing 100% of "atmosphere," its component parts might be 75% interdependence and 20% frustration and conflict and 10% dependence. Viewed in this way, Nolan & Hinkle contend that the contents of the community container are what predict the risk of crime and the odds that residents will be fearful of crime[8]. We test these ideas in the current study as described in the methods section of this paper.

Methods

Participants & Procedures

In the summer of 2017, an online questionnaire was circulated on Facebook via a snowball sampling method. An advertisement for this online survey was posted on the research team's and Research Center on Violence's Facebook pages. Friends were asked to complete the survey and to share the post when they completed the questionnaire. Some researchers have used this method to research subpopulations or difficult to reach populations in a rapid and cost-effective way[9].

This questionnaire yielded a total of 1,431 completed surveys. Participants of this survey were individuals who indicated that they were 18 years or older and currently a West Virginia resident. Qualtrics was used to administer the questionnaire. For this study, we are interested in people who indicated that they were currently living in a rural area or on the outskirts of a city or town. The respondents

were asked, "Which of the following best describes the place where you live?" They were given the following answer choices: a) city or town b) outskirts of city or town c) rural and d) other. Of the 1,431 individuals that completed the survey, 832 (~ 60%) indicated that they were currently living in a rural area or on the outskirts of a city or town.

Measures

Measures of community dynamics were developed according to research by Nolan, Conti, and McDevitt and Nolan & Hinkle[10, 8]. Respondents were presented with an 18-item instrument that began with the following statement: "Generally speaking, the people in my neighborhood or community…" and ended with a specific scenario which can be seen in Table 1 below.

All questions were measured with a five-point Likert scale, with strongly disagree being one, strongly agree being five, and neutral being in the middle. For analytical purposes, a factor analysis of these 18 questions was

conducted, using a Varimax rotation. This analysis resulted in questions loading on three factors that expose the neighborhood atmospheres: interdependence, conflict, and dependence.

Dependent variables

Risk of crime is measured by respondents reporting if they had experienced any of the following crimes in the previous twelve months: a break-in, outside theft, robbery, physical assault, motor vehicle theft, assault with a weapon, or verbal or physical hate crime. A risk of crime variable was created to reflect a score of zero if they had not experienced any of the crimes and a score of one if they had experienced at least one of them.

Fear of crime is captured by asking respondents to describe their level of concern about the subsequent events happening to them in their community: having your home broken into; vandalism to your home or car; being mugged/robbed; being physically

Generally speaking, the residents in my community…	Interdependence Factor	Frustration/Conflict	Dependence
…know how to work together to prevent crime	0.692	-0.231	0.135
…don't get along with one another	-0.617	0.304	0.116
… know how to deal with minor community problems	0.697	-0.224	0.021
… are willing to help one another	0.782	-0.174	0.052
… watch out for each other's property	0.798	-0.099	0.101
… tell each other what is going on	0.776	0.018	0.107
…do not work well together on community problems	-0.67	0.261	0.088
…trust each other	0.776	-0.227	0.024
… rely heavily on each other	0.747	0.004	0.179
… are frustrated with the police	-0.207	0.827	-0.113
… call the police for most community problems	0.132	-0.012	0.699
… think the police don't seem to care	-0.232	0.866	-0.132
… think the police do very little to prevent crime	-0.207	0.846	-0.205
… trust the police to be highly effective crime fighters	0.196	-0.693	0.434
… assume the police know what is going on	0.14	-0.338	0.516
… rely heavily on the police to deal with all kinds of neighborhood problems	-0.022	-0.179	0.827
… think the local police are ineffective	-0.215	0.831	-0.24
…have confidence that the police alone are capable of preventing crime	-0.052	-0.272	0.509

Table 1: Factor Analysis of Community Dynamics Variables
*Three factors with eigenvalues over 1 meaning higher than average, **KMO test of sampling adequacy .916 which is a very high sampling adequacy. These are accepted standards in factor analysis research.

	0 = not worried about crime and not a crime victim in the past 12 months.	1 = reported being worried or having been a victim in the previous 12 months.	N
Fear of Crime	50.48%	49.52%	830
Crime	79.78%	20.22%	831

Table 2: Non-urban and Dependent Variable Percentages

attacked because of your skin color, ethnic origin, or religion; being sexually assaulted by strangers; being physically attacked by strangers; being physically attacked by someone you know; and being sexually assaulted by someone you know. The answer choices were not at all worried; not very worried; fairly worried; and very worried. Individually, these were first dichotomized as "not at all worried" or "not very worried" = 0 and "fairly worried" or "very worried" = 1. These dichotomous variables are then used to produce an "overall fear" item where 0 = "not worried about any of the 8 items" and 1 = "worried about at least 1 of the items".

Analysis

In order to examine the effects of community dynamics with crime and fear of crime we employed binomial logistic regression. The results are presented in Table 3 and 4. The results show that the risk of crime is significantly related to community dynamics. More specifically, it is lower when interdependence increases, and significantly higher as conflict increases. We did not detect any evidence of dependence influencing risk in either direction. As interdependence increases by one standard deviation, risk of crime decreases by 32% (p<.01). As conflict increases by one standard deviation, risk of crime increases by 61% (p<.01). Dependence was not found to be statistically significant in relation

to risk of crime.

The results in Table 4 show that the fear of crime is significantly related to community dynamics. More specifically, it is lower when interdependence increases, significantly higher as conflict increases, and it is not affected by dependence when controlling for the other dimensions of community dynamics. As interdependence increases by one standard deviation, fear of crime decreases by 47% (p<.01). As conflict increases by one standard deviation, fear of crime increases by 76% (p<.01). Dependence was not found to be statistically significant in relation to fear of crime.

Discussion

The primary purpose of this paper was to study the effect of community dynamics on the risk of crime and the fear of crime in nonurban settings. Data for this study was collected as part of a larger state-wide survey, but the findings presented here relate only to those respondents who indicated either that they were living on the outskirts of a city or town or living in a rural area.

In both models, interdependence is associated with favorable odds. That is, increases in interdependence are associated with increases in quality of life, and decreases in risk and fear of crime. Interdependence is statistically (p<.01) and practically significant in these models. These findings suggest that

	B	Odds Ratio
Interdependence	-0.38	.68 **
Conflict	.48	1.61 **
Dependence	-0.10	.90

Table 3: Relationship Between Community Dynamics and the Risk of Crime in Rural Areas
* indicates significance at the p<.05 level, ** indicates significance at the p<.01 level

	B	Odds Ratio
Interdependence	-0.63	.53 **
Conflict	0.57	1.76 **
Dependence	0.02	1.02

Table 4: The Relationship Between Community Dynamics and Fear of Crime in Rural Areas.
* indicates significance at the p<.05 level, ** indicates significance at the p<.01 level

interdependent places are by far the safest, even in nonurban areas.

Conversely, increases in conflict are associated with decreases in quality of life and increases in risk and fear of crime. These, too, are statistically (p<.01) and practically significant. These findings suggest that conflict neighborhoods are the least safe. Lastly, dependence was not found to be statistically significant in these models. Due to there being zero significance, we cannot say if dependence increases or decreases risk of crime or fear of crime.

Conclusion

This paper has discussed three elements of a community atmosphere that result for psychodynamic processes: interdependence, conflict and dependence. The levels of each are related to the risk of crime and fear of crime in rural areas and areas outside of town. Our study shows that places with high levels of interdependence are likely to be the safest. In places where there is a lot of conflict among residents or between the police and community, the risk of crime and fear of crime increase significantly. No statistically significant relationship was found between dependence and crime or fear of crime.

In each neighborhood there is some level of interdependence, frustration and conflict, and dependence. These levels are produced by relationships among residents and between residents and the police. We believe that the police can help foster high levels of interdependence in the way they approach crime and crime control. This may be a difficult concept for individuals in rural areas to comprehend, as rural communities often do not share their internal problems or like to work with the government or law enforcement agencies. However, this is the basis of interdependence. To help address this issue, police must take the steps necessary to form a connection with the community. For example, in Framingham, Massachusetts classes in forensics and hostage negotiation were given to the public to break the "secrecy" that law enforcement agencies often portray. They thought it was a great way to fill in the gaps between the community and the police[11].

The data found is beneficial to many, especially law enforcement agencies, as it is a way to reduce crime for little cost. As stated previously, Weisheit et al. found that many rural economies follow similar patterns, and all of these patterns have ramifications when it comes to policing[2]. Although law enforcement agencies might be understaffed and have limited resources, there is still a way to make a big impact on crime. By using this community dynamics data, police can see that fostering good relationships with their community can directly impact the rate of crime in their area.

Creating these strong relationships among residents and between the community and police takes time but it is certainly achievable and worthwhile.

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Competing Interests

The author declares no competing interests.

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