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Neighborhood Friendship Networks and Fear of Crime

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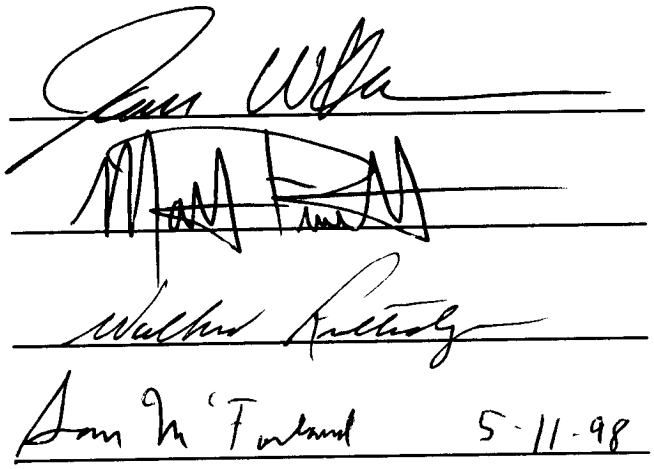

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Abstract

This research project addresses the relationship between fear of crime and neighborhood friendship networks, and provides an examination of fear of crime models. The data used were collected using both questionnaires and interviews in a 1988 survey of residents of Nashville, Tennessee. Crosstabulation tables and correlation analyses are presented with results showing a significant relationship between some measures of neighborhood friendship networks and fear of crime. Results also indicate that relationships exist between environmental conditions, previous victimization, personal characteristics, and fear of crime. The possible reasons for these relationships are discussed.

NEIGHBORHOOD FRIENDSHIP NETWORKS AND FEAR OF CRIME

It is nearly impossible to go a day in contemporary society without hearing the word "crime." It has taken the spotlight in mass media which flood the airwaves with the latest reports of murder, robbery, or kidnapping. The Federal Bureau of Investigations issues a Uniform Crime Report yearly to update Americans on the current level of crime. Candidates frequently run for public offices using anti-crime platforms, calling for harsher punishment and longer incarceration of offenders. A "War on Crime" has been declared across the nation. With the issue of crime at the forefront of citizens' daily lives, it should be no surprise that the residents of towns and cities throughout America report high levels of fear.

Perhaps because of the prevalence of information about crime and the abundance of sensational crime stories, it is possible for a person to develop a distorted view of the issue. Knowledge of actual crime statistics could lead to an increase in fear of crime, but which group of statistics does one believe? The abundance of opinions from all forms of media and "experts" can make it difficult for a person to stay accurately informed. Each person has his own interpretation

of the validity of crime rates and the viability of the information. With all the variance in information, why is it that a large number of the population reports that they are fearful of becoming victims of crime? It is more likely that a less formal knowledge causes a person's fear of crime.

Fear of crime can be deeply disturbing, causing those it affects great amounts of anxiety and concern. It influences the daily lives of citizens in many ways. Many new residents of urban areas simply accept that they are more likely to become victims of crime and adjust their lives accordingly. Efforts to prevent crime include locking doors to houses or cars, implementing programs such as neighborhood watches or student escort services on college campuses, and enrolling in self-defense classes. Millions of people adjust their daily schedules so that they are not alone after dark, or they may carry their money in their front pockets when they are in a crowded place. People who are afraid of crime change their daily habits. Clearly, fear of crime has a limiting effect on the lives of its victims.

The fear of crime also affects lives on the neighborhood level. When a neighborhood seems to become crime-ridden, its more prosperous residents simply move to another area (Box, Hale, and Andrews, 1988). While this solves the problem for them, the lower-income families that remain are left with an even greater problem. Fewer in number and less financially able to protect themselves, they must cope with the problem. Additionally, the resources that are available may not be enough to offset the invasion of the neighborhood by the perception of crime. By allowing their fear to limit their actions, people cut down on the strength and number of relationships within their neighborhoods, thereby reducing the quality of neighborhood life. For these reasons, fear of crime can be considered a major social problem.

Fear of crime is predominant in many aspects of the lives of its victims, sometimes causing people to make drastic changes in their everyday lives. A seemingly simple walk after dark takes on an ominous feel to one who is afraid of being mugged. Any phenomenon which adversely affects the lives of a large number of people on both the individual and the neighborhood level is a powerful one which should be studied.

Interest in fear of crime research emerged when scholars developed the concept that fear reflected the possibility of victimization (Covington and Taylor, 1991). While researchers have since found several exceptions to that rule, interest in fear of crime has developed into a major field of investigation. Much time and energy has been devoted to investigating the impact and causes of fear of crime; however, it is the recognition of the consequences of fear of crime which has helped to maintain the importance of fear-of-crime research in the social sciences (Kanan, 1992). While addressing a wide range of individual attributes and evaluating respondents' opinions about aspects of their neighborhood (for example, the appearance of empty lots) is a secondary goal, the main purpose of this research project is to provide an examination of fear of crime and its relationship with neighborhood friendship networks.

LITERATURE REVIEW

While fear of crime research is abundant, it is also greatly varied. Researchers have focused on explaining the difference in fear of crime between males and females, whites and nonwhites, and young and old (Chiricos, Hogan, and Gertz, 1997; LaGrange and Ferraro, 1989). Research has also developed in the areas of explaining the way the physical environment can lead to fear of crime (LaGrange, Ferraro, and Supancic, 1992; Lewis and Salem, 1986), as well as in the area of victimization's impact on fear (Keane, 1995; Warr, 1990). Finally, some research on fear of crime has examined the relationship between social support (or neighborhood networks) and fear of crime (Lewis and Maxfield, 1980; Riger, Lebailly, and Gordon, 1981).

FEAR OF CRIME

A majority of previous research has utilized a singularly focused survey question to measure fear of crime. Such a question focuses on an individual's feelings of safety while alone at night and is an attempt to elicit an emotional response to the idea of crime. It is intended to measure an individual's perception of safety at night, or a generalized fear which may be a reflection of perceived vulnerability (Keane, 1995). This emotional response is likely to be an individual's negative reaction to the thought of any crime.

The question "How safe do you feel being out alone in your neighborhood at night?" is a single item which measures a general, formless fear of crime. The respondents are left with the task of defining the crime of which they are afraid. For example, when a woman is asked this question, she may consider the possible occurrence of rape and report a high level of fear.

Methodological issues exist when a single measure of fear is used: the question is conceptually ambiguous in that it is not a valid indicator of fear across race, gender, and age lines (Smith and Hill, 1991); it does not distinguish between types of victimization (Rountree and Land, 1996); and the seriousness of victimization experience is not considered (Smith and Hill, 1991; Warr and Stafford, 1982).

Critics of the single-question measure claim that it is invalid because of several conceptual problems. First, the question "Are you afraid to walk alone at night?" asks people to estimate their risk of being victimized, not how afraid they are of being victimized. (Lagrange and Ferraro, 1989). Secondly, the studies that have been done focus on a general, judgment-based measure for fear and assume that fear of violent crime is being tapped (Rountree and Land, 1996). Finally, many argue that "risk" is a more complex and subtle issue than a single survey question can detect (Walklate, 1997).

Some research has used a multi-dimensional measure of fear of crime. When using such an approach, several questions are asked to assess the likelihood of becoming a victim to a specific criminal act. In doing this, an individual's anticipated victimization is measured (Rountree and Land, 1996). Since fear-of-crime measurement procedures greatly shape fear of crime findings (LaGrange and Ferraro, 1989), it is essential to examine them closely.

The current research will use the single-item method to measure fear of crime. The fact this method has been used in much of the previous research, as well as its statistical utility, facilitates its use. A majority of previous research has dealt with the identification of predictors and mitigators of fear of crime. Furthermore, such research leads to the belief that neighborhood friendship networks are related to fear of crime.

NEIGHBORHOOD FRIENDSHIP NETWORKS

Neighborhood friendship networks are the ties that develop between neighbors. While the concept seems simple, it is extremely difficult to construct an accurate measure of social ties. Basic questions about what comprises a social tie provide a dilemma, as do problems with gathering accurate data on the number and strengths of those ties (Kanan, 1992). In addition to the problems in measuring neighborhood friendship networks, the relationship between neighborhood friendship networks and fear of crime is not a simple matter.

In one instance, people who interact with their neighbors get to know them and may therefore become less fearful of crime. They may believe that their neighbors would intervene if they saw a crime in commission. The idea that neighborhood friendship networks serve to diminish residents' fear of crime is supported by Rountree and Land (1996), who found that "neighborhood cohesion is significantly and negatively related to perceived risk, indicating that social integration serves to diminish residents' perceptions of the neighborhood being unsafe." Research has also supported the idea that strong neighborhood bonds tend to predict a low level of fear for women (Riger et al, 1981).

As Bellair (1997) writes, "When a community's network structure increases, informal social controls on behavior are likely to be strong and delinquency and crime relatively less

likely." It seems logical that neighborhood social networks centered around family, close friendship ties, and community organizations are effective and important socialization agents.

Another outlook on neighborhood friendship networks is that neighborhood friendship networks and fear of crime are positively related (Sacco, 1993). Basically, the more people interact with their neighbors, the more they report fear of crime. Any time there is interaction with other residents of the neighborhood, a person could hear stories about friends or neighbors who have been victims of a crime. It is possible that when they hear such a story, people feel that they too could become victims of crime, and consequently experience a heightened fear of crime. However, it is difficult to establish a causal relationship in this area. Does discussion cause more fear or does fear prompt discussion? Yet another school of thought suggests that there is a reciprocal relationship between fear of crime and neighborhood networks (Lewis and Maxfield, 1980; Riger et al, 1981). This means that "diminished social ties are a consequence of fear as well as a cause" (Kanan, 1992).

Assuming that neighborhood interaction influences people's fear of crime, other questions which may be considered involve the strength and number of those ties. The strength of a tie between people can be measured by four criteria: the amount of time, the emotional intensity, the intimacy, and the reciprocal services (Granovetter, 1979). It could be that strong relationships are more important. It is very likely that when intimate relationships exist they are strong, lasting, and effective social controls. However, relatively few residents of urban areas report having close ties within their immediate area (Wellman, 1979).

The amount of interaction may also be considered. Frequent interaction could indicate a strong relationship between neighbors. People who see each other often might speak or spend a

great deal of time together socially, but they may also simply be passing each other in the hallway or on the sidewalk. Infrequent interaction is another type of contact between neighbors which is important, because it "may signal the existence of a broader web of affiliations among neighborhood residents" (Bellair, 1997). It is likely that some combination of frequent and infrequent interaction is common in the lives of most neighbors.

The research regarding the strength and frequency of ties is inconclusive, in part because of the difficulty in measuring such ties, and also because of their immense complexity. The need to examine several different aspects of each tie before one is able to gather a complete picture is daunting.

VICTIMIZATION

The issue of victimization is dominant in research of fear of crime. The expected relationship is logical: those who have been criminally victimized will report higher levels of fear. Indeed, a person who has been a victim of a crime recently is much more likely to report high levels of fear of crime. Smith and Hill (1991) found that victims of both property and personal crimes reported significantly higher levels of fear. However, in the same study, the researchers also found that victims of only personal crimes did not report higher levels of fear. While personal crimes are arguably more serious crimes, they occur rather infrequently relative to property crimes. Consequently, people may feel that they are at a greater risk of property victimization and report higher levels of fear (Warr and Stafford, 1982).

Upon further examination of victimization, another trend appears; more people are afraid than have been victimized (Taylor and Hale, 1986). It may be that indirect victimization (second-hand knowledge of a crime) has a similar effect on levels of fear to that of actual victimization.

According to Keane (1995), "... the threat of victimization may have as deleterious an effect as an actual victimization." It is entirely possible that vicarious victimization could lead to fear of crime, causing residents of a neighborhood to limit their activity.

INDIVIDUAL ATTRIBUTES

Age

It is a commonly held conception that as people age, their level of fear increases. Research has shown that those who are least likely to become victims of violent crimes (elderly people) tend to report the most fear. Conversely, young men, who are most likely to become victims, report the least fear of crime -- a phenomenon that has become known as the fear-victimization paradox (Keane, 1995; LaGrange and Ferraro, 1989). If the link between age and fear is pertinent, there are several possible reasons. The first of these is that the elderly may feel they are at an increased risk because of their inability to defend themselves from a physical assault. Additionally, elderly persons could consider themselves more apt to be injured in the event of a violent attack (Smith and Hill, 1991).

However, there is evidence which challenges the generally accepted relationship between age and fear of crime. It appears that the prevalence and intensity of fear of crime among older persons have been overestimated (LaGrange and Ferraro, 1989). Studies have supported the idea that when additional factors like the area one lives in are examined, the link between fear of crime and age is not as substantial (Smith and Hill, 1991; Riger et al, 1981).

Gender

Gender is another variable which has been repeatedly linked with fear of crime. Like the elderly, women may see themselves as physically vulnerable to a violent crime. LaGrange and

Ferarro (1989) provide another possibility, in that "higher fear of crime for women may be largely fear of male violence." This is a logical conclusion since males are the perpetrators of most violent crimes; therefore, any person's fear of crime is a fear of male violence. However, "women are exposed to much greater levels of risk of criminal victimization from some kinds of crime [sexual crime] than are men" (Walklate, 1997). Arguably, threats of sexual danger elicit more fear than property crimes. This idea is substantiated by LaGrange and Ferraro (1980), when they propose that "men and women equally assess their risk of being victimized by a property crime in the coming year, but women think they are more likely to be the victim of a personal crime." Since in many studies the type of crime for which fear is being measured is not specified, it is possible that a woman's evaluation of her fear of crime is based on her fear of rape, rather than an objective estimate of her risk of being victimized (Keane, 1995).

Finally, women may have higher reported levels of fear than men because men might be reluctant to report being fearful of crime. The thought that others will think of them as "weak" or "vulnerable" will prevent men from disclosing their fear (Walklate, 1997).

Race

Skogan and Maxfield (1981) suggest that blacks are more fearful from living in areas which have higher crime rates. Frequently, these areas are poorly policed, which could in turn lead to higher levels of fear of crime. Another aspect of race which is important in examining fear of crime is the issue of racial composition, or "the possibility that blacks and whites may be more fearful in neighborhoods where they are the minority race" (Perkins and Taylor, 1996).

Income

Members of low-income brackets are generally expected to report more fear of crime than those who have higher incomes. This might be attributed to the fact that the poor are more often exposed to risk because they must live in high-crime areas. People who make more money are better able to protect themselves from crime, either by moving out of a high crime area or by investing in crime preventive measures. In this way, income influences vulnerability to crime through neighborhood placement (Taylor and Hale, 1986).

Education

The concepts education and income are often intertwined. This is probably because people's education frequently decides their income, which in turn influences the neighborhood in which they live. Smith and Hill (1991) found that education was negatively related to fear of crime, meaning that as education increased, fear decreased.

FEAR-OF-CRIME VARIABLES

Prior research has identified several approaches to explaining fear of crime: indirect victimization, vulnerabilities, incivilities, subcultural diversity, and community concern. The first group of variables, indirect victimization, considers the effect of hearing stories about crime on an individual's fear of crime. While it may be logical to expect that those who have recently been victims of a crime will be fearful, victims of crime are not the only people who report fear. In fact, many more people report fear of crime than are victims of crime (Skogan, 1987; Rountree and Land, 1996). People who hear a story about a crime which has happened to an acquaintance and become afraid are indirectly victimized. This indirect victimization is much more widespread than actual victimization. Hence, for every crime that occurs there are two possible categories of

victims: the actual victim and those who hear about the crime. The vicarious knowledge of a crime causes some to react as if they had experienced the consequences themselves.

While previous victimization can be determined by the answer to a single question such as "Have you been a victim of a crime in the past year?", a measure of indirect victimization is less tangible. Its effect is also harder to measure. On one level, a person who hears of a robbery becomes more conscious of locking the door. On a more serious level, however, a person may hear of a robbery or a brutal rape from a neighbor and because of that exposure become more afraid. The degree to which a person is affected by indirect victimization varies greatly.

The vulnerability variables include two types of vulnerability. The first, social vulnerability, implies that since minorities and poor tend to live in higher-crime areas, they are more vulnerable to crime than their white or more wealthy counterparts. Because of their residential location, they have a higher level of possible victimization (Taylor and Hale, 1986). The second category, physical vulnerability, refers to the feelings of women and the elderly that they are less able to defend themselves in the case of a violent attack, and therefore more likely to be injured (Skogan, 1987). According to vulnerabilities proponents, people who belong to either category of vulnerability will report higher levels of fear of crime.

The incivilities group of variables, which also has different variations, attempt to measure the connection between people's fear of crime and a range of circumstances (LaGrange et al, 1992). These circumstances are classified into two main categories: physical incivilities and social incivilities. Physical incivilities consist of the appearance of vacant lots or rundown buildings, while social incivilities refer to public drunkenness or even groups of unsupervised

boys. Physical incivilities are probably the most noticeable signs of neighborhood deterioration, but the appearance of social incivilities is perhaps more predictive of fear of crime (LaGrange et al, 1992).

Previous research has shown that there is a significant relationship between the appearance of incivilities and an increase in fear of crime (Covington and Taylor, 1991; Skogan and Maxfield, 1981; Taylor and Hale, 1986). Residents of a neighborhood may begin to notice an increase in untended property or disruptive behavior and associate the negative feeling that accompanies such a realization with crime. While incivilities are not necessarily criminal in nature, they can nonetheless be disturbing.

Incivilities are often taken as an indication that a neighborhood is vulnerable to crime. According to Lewis and Maxfield (1980), "the level of incivility in each neighborhood creates a sense of danger and decay which increases individuals' perceived risk of victimization." Signs that the neighborhood is declining, disorderly, unpredictable, and dangerous may cause residents to feel surrounded by threats, which are either symbolic or actual (Box et al, 1988), which in turn may lead them to feel isolated and afraid. It is also probably true that incivility and crime indicate a more fundamental social decline, which affects people's perceptions and feelings of safety (Lewis and Maxfield, 1980). Incivilities cause fears about the weakening of social controls on which residents feel their safety is dependent. The continued presence of incivilities "points to the inability of officials to cope with these problems" (Taylor and Hale, 1986). This is especially true since incivilities are often occurrences about which the local authorities can do little. The actual presence of a high crime rate, in conjunction with incivility, may produce even greater levels of

concern and fear. It has even been suggested that a lack of action against incivilities can eventually lead to an actual increase in the rate of crime (Perkins and Taylor, 1996).

The presence of incivilities tends to be indicative of lower-class neighborhoods. According to LaGrange et al, (1992), "many of the community traits used to measure incivility . . . . are a common if not unavoidable by-product of lower-class life." Unlike middle-class communities, lower-class communities do not have the financial ability to resist the invasion of incivilities or, at the very least, to hide them. The incivilities group of variables also seems to apply mainly to urban residents and may not necessarily explain the fear of residents of rural areas.

Another kind of fear-of-crime variables addresses subcultural diversity. Simply stated, people are afraid of those who are different from them. In multi-cultural neighborhoods, if people do not understand their neighbors' culture, it may be the case that they also do not understand the actions and mannerisms of their neighbor (Covington and Taylor, 1991; Kanan, 1992). This could lead to a heightening of levels of fear in a neighborhood because ethnic diversity in a neighborhood probably indicates a wide variety of norms, in turn lessening the strength of social controls.

The fear of neighbors is not exactly the same as fear of crime. However, it is a general feeling of distrust of those who are different. When given a specific person on which to focus, this distrust can bloom into a more specific fear. In some individuals it could lead to a feeling that the person who is different will try to harm them.

The community concern variables contend that fear of crime is related to a general concern with community disintegration. In this group, perceived problems lead to concern, which in turn leads to fear. When a neighborhood lacks social ties and residents have an awareness that

the neighborhood is deteriorating, it can encourage concern about future conditions in the neighborhood and therefore result in elevated fear of crime (Lewis and Salem, 1986). Implicit in the community concern variables is the idea that the better people know their neighbors, the less likely it is that they will report fear. Following such logic, the more time people spend with each other, the better they get to know each other, and the less fear they will have.

Attendance at neighborhood gatherings, such as barbeques or neighborhood watch meetings, help neighbors to get to know one another. However, any kind of interaction, not just organized meetings, allow acquaintances and even friendships to develop. Sometimes an event as simple as saying "hi" to someone on the way to work can develop into feelings of friendship over time. These feelings may allow people feel more comfortable in their neighborhood.

Once people get to know their neighbors, they can become more trusting of those neighbors. They might ask their next-door neighbor to watch the house for the weekend or feed their dog while they are out of town. Conversely, if they see a stranger walking around that neighbor's house, they will be more likely to watch for suspicious behavior and, if necessary, call the police.

The easy identification of those who do not belong is yet another benefit of involvement in neighborhood events. If everyone in a neighborhood knows everyone else, it will become easier for members of a community to recognize strangers. Neighborhood friendship networks fall easily under community concern.

HYPOTHESES

This research examines the effect that different variables have on fear of crime. Specifically, it is hypothesized that increased interaction with neighbors will significantly decrease fear. Other variables and their effects are addressed as well. With regard to neighborhood conditions, the appearance of both social and physical incivilities should be positively related to fear of crime. Prior victimization is also expected to have a positive relationship with fear of crime, as is the measure of indirect victimization. Individual attributes (age, race, and gender) are anticipated to correspond with previous research -- that is, elderly, nonwhite, or female respondents should report higher levels of fear. Finally, it is hypothesized that education and income will be negatively associated with fear of crime.

DATA AND METHODS

The data for the present research come from a 1988 survey of residents of Nashville, Tennessee. The survey was limited to South Nashville because it contains two-fifths of the population in Nashville and contains many types of neighborhoods in terms of demographic and housing characteristics. During the first stage of the selection process, 81 partial-face blocks (five houses on either side of the street for a total of 10 houses) were systematically selected from a pool of 4,515. The pool of partial-face blocks was stratified by racial composition, tenure mix, and income level. Ultimately, three to nine partial-face blocks were drawn from each stratum.

In the second stage, every individual 13 years of age or more in each partial-face block was asked to participate in the survey. Most residents completed a questionnaire and participated in an hour-long interview, although some individuals consented only to a short version of the interview. The survey gathered information on social ties and attitudinal measures of fear as well as social and demographic characteristics. Some data have been aggregated to the neighborhood level. However, network data have been kept at the individual level, featuring networks which focus on a particular respondent. Additional details about the sample and survey can be found in Lee and Campbell (1990).

DEPENDENT VARIABLE

For the purpose of this research, the single-item measure of fear of crime was used to indicate the dependent variable *fear*. The question "How safe do you feel or would you feel being out alone in your neighborhood at night?" was presumed to give an accurate dimension of fear, since a majority of prior research also used this measure. Responses were originally ranked from "Very unsafe" to "Very safe," but have been dichotomized into the categories "Fear" and "Non-fear" in order to allow for crosstabulation, which is a statistically more usable distribution. Any degree of unsafe feeling was coded as fear (1), while a general unconcern about being alone at night was regarded as non-fear and received the value 0.

INDEPENDENT VARIABLES

Like fear, neighborhood network variables have been coded into bivariate responses, divided into those who have mingled with their neighbors and those who have not. Any interaction was considered indicative of a relationship. Respondents indicated whether they had looked after their neighbor's homes while they were out of town (*looked after homes*), provided minor help such as letting a neighbor use the phone (*helped in minor way*), or believed that their neighbors would watch for trouble (*neighbors watch*). Additional variables involved helping a neighbor in a minor emergency (*helped in minor emergency*), inviting neighbors to dinner (*invited to dinner*), or watching neighbors' children (*child care*). This range of variables taps a wide array of possible interactions between neighbors.

The variables in regard to victimization are relatively uncomplicated. *Personal victimization* refers to having been the victim of a violent crime, while *property victimization* measures the number of times the respondent has been burglarized. Indirect victimization is

considered to be at least partially indicated by the variable *talked about crime*. In discussion about crime, it is not unlikely for people to tell stories about others whom they know have become victims of crime.

The measures of incivility are also straightforward. Variables in this category focus on eliciting respondents' perceptions of neighborhood deterioration as a "problem" or "not a problem." Social incivility variables are *people causing trouble* and *wrong people around,* while physical incivility variables are *bad housing* and *empty lots.*

Finally, individual attributes are examined. Items like *age, gender,* and *race* frequently appear in all aspects of social research, and this paper is no exception. *Age* and the *number of people in the house* have not been recoded. The remaining individual characteristics have been dichotomized: *education* (high school and less=1, more than high school=0), *gender* (male=0, female=1), and *race* (white=0, nonwhite=1). *Income* is a measure of household income, and has been divided into $10,000 brackets.

FINDINGS

Crosstabulation Analysis

Three two-by-two crosstabulation tables are presented below. These tables allow further examination of the relationship between the statistically significant neighborhood friendship network variables and fear of crime.

[Table 1 about here]

Results in Table 1 show that a large percentage (78.3%) of people who believe their neighbors will watch for trouble report feeling no fear when alone at night compared to a much smaller percentage (44.8%) of people who do not believe that their neighbors will watch for trouble and who report no fear. This means that more people report less fear when they believe that neighbors are watching for trouble. The chi-square test of independence indicates that the relationship is statistically significant (chi-square = 36.570, df = 1, $p<.0001$) and moderate (phi = -.225).

[Table 2 about here]

Table 2 contains a crosstabulation of fear of crime by the respondents having helped a neighbor in a minor way. The results indicate that residents who had helped a neighbor in a minor way were more likely (78.9%) than those who had not helped (68.6%) to report no fear of crime

while being out alone at night. In short, people who help neighbors tend to report less fear of crime. Chi-square is significant (chi-square = 9.624, df = 1, $p<.01$) but small (phi = -.113).

[Table 3 about here]

According to Table 3, almost 80 percent of people who invited their neighbors to dinner indicated that they felt no fear when alone at night compared with just over 70 percent of people who had not invited their neighbors to dinner and who reported no fear. This means that people who invite their neighbors to dinner are more likely to report lower levels of fear. The results of the chi-square test of independence indicate that the relationship is approaching significance (chi-square = 3.523, df = 1, p = .05) and is small (phi = -.072).

Upon examination of the chi-square results, it is evident that there is considerable difference between the effect of the belief that neighbors will watch for trouble and the other two variables, helping neighbors in a minor way and inviting neighbors to dinner. The difference in levels of significance is substantial because the knowledge that neighbors are helping them protect themselves and their belongings could alleviate people's fear of crime. While the crosstabulations facilitate an examination of the specific neighborhood network variables and how they impact fear of crime, a correlation matrix is useful for an analysis of the other variables.

Correlation Analysis

A zero-order correlation matrix is presented in Table 1. The analysis provides substantial support for several of the hypotheses; however, it also yields some interesting contradictions.

[Table 4 about here]

As hypothesized, a significant bivariate relationship can be found in the expected direction between most of the neighborhood network variables and fear of crime. The variables *neighbors watch, invited for dinner*, and *helped in a minor way* are significantly and negatively related to fear of crime, but the remaining three -- *looked after homes, child care,* and *helped in emergency* -- are not significant. Why are some of the neighborhood network variables not significantly related to fear? It could be that the three variables that are not significant call for a higher level of emotional attachment or intensity for which people are generally unwilling to ask from their neighbors. With regard to childcare, it seems more likely that people would ask a family member or a long-time friend to look after their children instead of a neighbor.

All measures of incivility achieve statistical significance in the expected direction in relation to fear. In fact, three variables are significant at the .01 level (*people causing trouble, wrong people around,* and *empty lots*). The reason that these measures are all significant is likely their tangibility. People are faced with a concrete representation of incivilities whenever they venture into their neighborhood; because of this, incivilities are easily detectable.

Both types of victimization (personal and property) are statistically significant, although it is interesting to note that property victimization is more significant than personal victimization. This seems to support Warr and Stafford's (1982) assertion that people may feel they are more at risk of property victimization because of its frequency relative to personal victimization.

The vulnerabilities variables are partially supported, since *gender*, *income,* and *race* correlate in the hypothesized directions with fear of crime (.247, -.106, and .183, respectively). Indeed, *gender* has the strongest relationship with fear of crime. However, while *age* is positively

correlated with fear of crime, it fails to achieve statistical significance. *Age's* lack of significance is of particular interest because it appears to corroborate the idea that while the elderly generally do feel more vulnerable to crime, the relationship is exaggerated.

Additional support for the influence of vulnerabilities is found in the fact that both *income* and *race* correlate significantly with three of the four incivility measures (*bad housing, empty lots,* and *wrong people around*). Nonwhites are more likely to report the appearance of incivilities than whites, as are those who indicate low income levels. This is logical since nonwhites and people in lower income brackets generally live in neighborhoods in which incivilities are more likely to appear.

Braungart et al (1980), had previously found that people who lived alone expressed more fear than did people who lived with others. However, the correlation analysis indicates a positive (but insignificant) relationship between the *number of people in the house* and fear. This means that as the number of people in the house increases, reported fear of crime also increases. Presumably, the more people that live in a house, the more opportunity there is to talk about crime and to consequently become indirectly victimized.

Finally, there is the failure of *talked about crime* to attain statistical significance. Although the relationship is positive, indicating that when people talk about crime they become more afraid of crime, the relationship is not as strongly correlated with fear as initially expected.

DISCUSSION AND CONCLUSION

This research has attempted to build on the existing literature by providing a concise analysis of the relationship between neighborhood networks and fear of crime. It was hypothesized that neighborhood friendship networks would serve to alleviate fear of crime. It is apparent from the results that some variables which indicate neighborhood friendship networks do seem to diminish residents' fear of crime (Rountree and Land, 1996). One reason that some variables (*neighbors watch, invited for dinner,* and *helped in minor way*) achieved significance while others (*child care, helped in emergency,* and *looked after homes*) did not could perhaps be because the variables *child care* and *helped in emergency* call for stronger attachments than most people have with their neighbors. Another reason for the inconsistency in significance could be due to the relative infrequency of certain events. People generally do not go on vacation more than once a year, and emergencies rarely occur. Parents often to hire babysitters instead of asking neighbors to look after their children. There are many more opportunities to invite neighbors to dinner or to help in a small way. Furthermore, watching each other's homes can be seen as a 24-hour activity.

The relationship between residents' belief that their neighbors will watch for trouble and fear of crime is very strong. In fact, the correlation is so strong that it was surpassed only by the

correlation between gender and fear of crime. While they are not necessarily afraid of crime, people who watch for the occurrence of criminal activity are at least aware that such activity is possible. Perhaps one reason for strength of the relationship is that people feel less afraid knowing that they are not alone in being concerned, and that others are watching out for them.

The current research project also examines the relationship between other possible predictors of fear of crime, and the results largely support previous research on the different predictors of fear. Both types of victimization are positively correlated with fear of crime; however, Warr and Stafford (1982) are supported in their assertion that people report more fear of property victimization than of personal victimization. Moreover, in opposition to Keane (1995), results show that indirect victimization is not significantly related to fear of crime, although the relationship was positive, as predicted. This could be because of the relatively weak indicator which was used.

In support of the assertion that women would report higher levels of fear (Skogan, 1987), gender achieves significance at the .01 level, which appears to reinforce the idea of physical vulnerability. Indeed, the strongest correlation is between gender and fear of crime. It was expected that physical vulnerabilities would also be supported by the findings in regard to age, but these results differ from prior research in this area. Rather, the results do not indicate a significant relationship between age and fear of crime, which seems to substantiate the claim that the relationship between gender and fear of crime is more prominent than the relationship between age and fear of crime (LaGrange and Ferraro, 1989).

As predicted, incivilities are positively and significantly related to fear of crime (Covington and Taylor, 1991). This is not surprising since incivilities are fairly obvious to someone who has been a resident of a neighborhood for a substantial length of time.

Of all the variables, education has the weakest correlation with fear of crime. It should also be noted that while both education and income are inversely related to fear of crime, only income achieves statistical significance. This may be because some jobs exist that require a relatively high amount of education but pay little, such as teaching. The insignificance might also be a result of the way education was dichotomized. For instance, had education been divided into the categories "less than high school" and "high school or more," it is possible that the results would be substantially different.

One positive implication of this research project is that it should encourage members of a community to interact with one another, either by developing formal neighborhood organizations or by doing something as simple as having a cookout in someone's backyard. Involvement with their neighbors can give people a feeling that they can exercise some control over the environment in which they live.

There were some things which, given more time and experience, could have been done differently. For instance, because the variables were dichotomized, it was impossible to measure the strength or the frequency of the neighborhood ties. While measuring strength and frequency would be very difficult, it would also be extremely valuable because it would allow for broad expansion in the area of network research, and could yield some new information on the relationship between fear of crime and neighborhood networks.

Perhaps a multi-dimensional outlook on fear of crime would have been better. However, since the results using the single-item method for the most part agree with past research, there is an indication that the such a method is indeed an accurate measure of at least some aspect of fear of crime.

Future research should attempt to include a measurement of the frequency of interaction between neighbors, as well as the strength of the bonds that exist. Researchers also might consider the use of a multi-dimensional measure of fear of crime.

It is important to consider the consequences of fear of crime. These consequences have considerable impact on neighborhood friendship networks, which is why the relationship between fear of crime and neighborhood friendship networks should become an integral part of fear-of-crime research. While the immediate research found that some aspects of neighborhood friendship networks are significantly related to fear of crime, the relationship requires a great deal of elaboration.

Table 1. Crosstabulation of Fear by Belief Their Neighbors Will Watch for Trouble

		Neighbors Will Watch For Trouble		
		No	**Yes**	**Total**
Fear	No	44.8%	78.3%	75.2%
	Yes	55.2%	21.7%	24.8%
Total		100.0% (67)	100.0% (654)	100.0% (721)

Chi-square= 36.570, df= 1, p<.0001 Phi= -.225

Table 2. Crosstabulation of Fear by Having Helped A Neighbor In Minor Way

		Helped in Minor Way		
		No	**Yes**	**Total**
Fear	No	68.6%	78.9%	75.3%
	Yes	31.4%	21.1%	24.7%
Total		100.0% (261)	100.0% (487)	100.0% (748)

Chi-square= 9.624, df= 1, p<.01 Phi= -.113

Table 3. Crosstabulation of Fear by Having Invited Neighbors to Dinner

		Invited to Dinner		
		No	**Yes**	**Total**
Fear	No	72.7%	79.1%	75.3%
	Yes	27.3%	20.9%	24.7%
Total		100.0% (444)	100.0% (301)	100.0% (745)

Chi-square= 3.855, df= 1, p= .05 Phi= -.072

Table 4. Zero-Order Correlation Matrix

Variables	Y1	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	X15	X16	X17	X18	X19
Y1 Fear	1.000																			
X1 Looked After Homes	-.065	1.000																		
X2 Neighbors Watch	-.225**	.449**	1.000																	
X3 Child Care	-.034	.251**	.159**	1.000																
X4 Invited for Dinner	-.072*	.313**	.241**	.350**	1.000															
X5 Helped in Emergency	-.027	.440**	.262**	.345**	.439**	1.000														
X6 Helped in Minor Way	-.113*	.364**	.269**	.298**	.381**	.413**	1.000													
X7 Talked About Crime	.034	.191**	.172**	.130**	.134**	.212**	.140**	1.000												
X8 People Causing Trouble	.143**	-.029	-.133**	.106**	.025	.035	-.029	.136**	1.000											
X9 Wrong People Around	.175**	-.022	-.042	.036	-.026	-.010	-.017	.114**	.367**	1.000										
X10 Bad Housing	.145*	-.012	.007	.025	-.055	-.025	.008	.116**	.218**	.382**	1.000									
X11 Empty Lots	.152**	.048	.021	.065	.032	.028	-.049	.079*	.238**	.363**	.371**	1.000								
X12 Personal Victimization	.083*	.030	.005	.029	-.020	.041	.022	.048	.153**	.136**	.060	.147**	1.000							
X13 Property Victimization	.144**	.050	-.044	.089*	.053	-.011	.012	.111**	.055	.152**	.127**	.028	.141**	1.000						
X14 Age	.038	.131**	.086*	.123**	.099**	.143**	.040	-.035	-.148**	-.017	-.118**	-.061	-.020	.082*	1.000					
X15 Education	-.022	.065	.055	-.058	.044	.063	.024	.142**	.008	-.065	-.055	-.062	.014	-.012	-.120**	1.000				
X16 Gender	.247**	-.030	-.057	.041	.037	.055	.006	.040	.005	.056	.113**	.050	-.048	.002	.072*	-.074*	1.000			
X17 No. in House	.023	-.126**	-.089*	.269**	-.013	-.053	-.040	-.045	.108**	.037	.023	.138**	.071	.015	-.385**	-.073*	-.037	1.000		
X18 Income	-.106**	-.005	.013	-.035	.020	.033	.032	.029	-.037	-.082*	-.103**	-.080*	-.037	.047	.005	.042	.013	.009	1.000	
X19 Race	.183**	.020	-.004	.120**	.075*	.030	-.100**	-.023	.033	.158**	.175**	.378**	.058	.079*	.017	-.073*	.081*	.255**	-.056	1.000

* correlation is significant at .05 level (2-tailed)
** correlation is significant at .01 level (2-tailed)

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