

Social research frequently studies inequalities and disparities concerning an individual's overall health. An individual's social class and income can influence what kind of physical or mental health problems that he or she may face related to the type of neighborhood in which he or she lives. Research has continuously examined the effects of poor neighborhoods on health, yet does not always put into consideration the effects that an unsafe neighborhood could have on a person's health and state of mind. The purpose of this study is to relate neighborhood safety influences to overall health. Data is used from the General Social Survey (2010) to highlight the extent of the differences between physical and mental health and how they relate with each other as well as with income and neighborhood safety perceptions.

Literature Review

Neighborhood disorganization has been an external stressor that can change the outcome of an individual's health. External stressors add to internal stressors that an individual accumulates throughout their lifetime, depending on demographic factors. An individual living in a disorganized, unsafe neighborhood will have diminished feelings of trust in others and feel less powerful in any difficult situation (Booth, Ayers, & Marsiglia, 2012). Feeling unprotected leads to paranoia or feeling powerless which has widely been recognized as a contributing factor to poor mental health. Neighborhood disorganization includes physical aspects like having run-down buildings, broken windows, lack of greenery and parks, and bad infrastructure in general, all within the neighborhoods. A neighborhood's organization and infrastructure can say a great deal about the income of the neighborhood as a whole, which can then tell us a lot about the incomes of the individuals that reside in those areas and how their health varies accordingly.

There have been increasing numbers of studies that look at accumulated physical disabilities in an individual's life in relation to the geographical space in which he or she resides

(Root, 2012). A case study examined child obesity, neighborhood walkability, and physical health threats associated with the neighborhoods' homicide rates (Lovasi, Schwartz-Soicher, Quinn, Berger, Neckerman, Jaslow, Lee, & Rundle, 2013). A neighborhood with high rates of crime makes the people in the neighborhood feel less safe to walk around the neighborhood and this limits physical activity within the neighborhood. This finding shows there is a link that is prevalent between poor physical health outcomes in accordance to neighborhood safety. This reduces walkability in the neighborhood especially at night time. Some neighborhoods are more prone to certain diseases due to the geographical space in which it is located in accordance to the socioeconomic statuses of the people living there (Root, 2012). It is believed that poor physical health is prevalent in areas that are disorganized and lack certain geographic resources that are found more often in safer neighborhoods with a higher status or income. More neighborhood disorganization and less open spaces within the neighborhood affect the physical well-being of individuals in this way having less attention on the need for renovation in these areas.

Many neighborhood studies widely look at incomes of individuals in relation to their health within those neighborhoods. Low income individuals undoubtedly face a great deal of financial stressors. People with low incomes tend to live in more disordered neighborhoods which in turn make the individual feel less safe in that neighborhood. (White, Kasl, Zahner, & Will, 1987). This causes increased psychological distress in those individuals who cannot obtain the same resources that somebody with a higher income could easily obtain, whether for physical health or mental health. Neighborhoods that are generally perceived as dangerous usually have concentrated areas of poverty. It is evident throughout many sociological studies that a great majority of low-income families and individuals are living in neighborhoods in which certain health care resources are scarce. The disadvantages that a person experiences in his or her

childhood neighborhood as a low-income individual has an impact on the future outcome of the well-being of that person.

The impact of collective efficacy has also been shown to coincide with perceptions of crime and victimization in a neighborhood which will impact how safe an individual will feel in his or her own neighborhood (Browning & Cagney, 2002). Collective efficacy is important within a neighborhood because when people do not have control over those people around them on a social level within the neighborhood, people in those neighborhoods do not connect on a social level and experience detachment from everyone around them. Individual's need to feel connected and safe around the people they are living in close proximity to in order to maintain good mental health. (Booth, Ayers, & Marsiglia, 2012). These issues are linked back to the neighborhood and its influences on personal health. A lack of social connections with others within the neighborhood can add to psychological distress to an individual by having a lack of support from people nearby.

Studies have noted that individual perceptions of his or her neighborhood being unsafe have actually increased more than crime rates themselves (White, Kasl, Zahner, & Will, 1987). Furthermore, it is the perception of crime that is linked to influences on health rather than the crime rates themselves. These perceived crimes can be an indirect cause to the decisions and behaviors of normal everyday life for the residents within that location. Regardless of the crime rate in the neighborhood, if perceptions of unsafe living conditions continue within individuals living in a certain neighborhood, then unintended outcomes of poor physical and mental health persist. Individuals that live in a disorganized neighborhood are more than likely low-income

individuals. These neighborhoods lack in adequate resources and it is evident that these individuals then feel that they are unworthy of improved neighborhood standards.

When an individual lives in a low-income neighborhood there is less access to health resources in that neighborhood, like access to social institutions or open green spaces to walk around. This could be a contributing factor to decreased physical activity within certain neighborhoods (Lovasi, Schwartz-Soicher, Quinn, Berger, Neckerman, Jaslow, Lee, & Rundle, 2013). Low-income individuals feel less of a sense of control over their lives due to financial limitations, which diminishes the opportunity of movement within the neighborhood. Neighborhood composition, both physical and social, affect an individual's perception of the safety of his or her neighborhood (White, Kasl, Zahner, & Will, 1987). This is where open green spaces like parks correlate with overall higher incomes within families and better physical health. If the individual resides in a neighborhood with poor infrastructure where little to no social interaction is made by the individual with others, then that individual will feel less secure in the neighborhood.

Neighborhoods that pay little to no attention to improving physical infrastructure quality will more than likely have the same level of quality in its social institutions. When individuals live in an area of high poverty and crime rates, which attribute to a neighborhood's safeness, mental health and obesity rates are higher and are evident to coincide with each other, on average. (Clampet-Lundquist & Massey, 2008). Mental health issues prevail in low-income neighborhoods which also experience the lowest forms of collective efficacy. This again leads to psychological distress.

Gaps

One of the limitations of many neighborhood studies is that many have small samples and usually when the samples are selected, those studies only look at specific demographics in relation to the groups that they want to study. Although a neighborhood study could have a rather large sample, in order to make a good observation for the populations of interest, the sample is then usually not too representative to the general population. In order to generalize the effects of neighborhood safety perceptions to all populations, the General Social Survey analysis will make a more generalized observation of neighborhood safety perceptions corresponding with health outcomes within all individuals of different incomes throughout different regions.

Neighborhood studies usually look at low income minority individuals and their children, but the goal of my study is to look at the differences between the incomes of individuals that experience neighborhood fears and how that correlates with physical and mental health. Neighborhood studies generally will examine the outcomes of either physical health or mental health, and for my study I want to look at how they both correlate simultaneously with neighborhood perceptions.

Many neighborhood studies do not look at neighborhood fears as a factor to the type of income or health outcomes that an individual has. Instead, this outcome is perceived as a result of the income of an individual and overall health outcomes as being indicators of neighborhood perceptions. For my study I will show the importance of perceptions of safety within neighborhoods and how they relate with an individual's mental or physical health and income. The proposed research will test three hypotheses:

H₁: Neighborhood safety perception is related to income

H₂: Neighborhood safety perceptions are related to poor physical health

H₃: Neighborhood safety perceptions are related to poor mental health

Proposed Research Design

An analysis of the General Social Survey (2010) is used to analyze the results of neighborhood safety perceptions in relation to income and both physical and mental health. The General Social Survey is a national survey that has a randomly selected sample of 2,044 individuals. The survey is conducted throughout the country in order to analyze different demographic characteristics, preferences, opinions, and behaviors. The General Social Survey is conducted in person and the response rate for the survey is about 85 percent, which is fairly good. The benefit of using the General Social Survey for this study is that the respondents are randomly selected which helps in attaining external validity.

The dependent variables I am using from the General Social Survey are the *physhlth*, *mntlhlth*, and *realinc* and the independent variable I used is the *fear* variable. The *physhlth* and *mntlhlth* variables were used to ask the respondent the number of days of poor physical or mental health that he or she had experienced in the past thirty days. The physical health variable, *physhlth*, asked the respondent, “Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good”. The respondent answers with the number of days on a scale of zero to thirty days. The mental health variable is worded similarly: “Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good”. The respondent also answers this question on the ratio

scale of zero to thirty days. The *realinc* variable specifically asks for the respondent's family income in constant dollars.

The *fear* variable is associated with neighborhood fears and is worded in the survey as, "Is there any area around here--that is, within a mile--where you would be afraid to walk alone at night". The respondent answers on the General Social survey are coded as either yes, no, don't know, or refused. I recoded the *fear* variable into a nominal dichotomous variable and excluded missing answers with either 'yes' or 'no' as the two values.

There are limitations with the operationalization of the *fear* variable. The respondent may answer 'yes' to the question asking if he or she is afraid to walk alone at night, yet it does not fully and clearly represent neighborhood safety perceptions. The variable is a good indicator of how the individual feels at night in the places near and around him or her, yet perceptions could be different for the individual during other times of the day, like the afternoon or morning. The *fear* variable is not a reliable indicator in capturing the extent to how much the individual may actually fear his or her neighborhood or how he or she may perceive the dangers of the neighborhood. The respondent may also misinterpret how far in his or her neighborhood that a mile may actually be.

The General Social Survey is an in-person interview, which makes the limitation of having the social desirability bias in a respondent's answer to sensitive topics. A person's state of being in mental and physical health can be a sensitive topic for some people, as well as income and those answers have the threat of being unreliable.

Results

Univariate Analyses:

Neighborhood Safety Perceptions

Fear Walking alone in neighborhood at night	Frequency	Valid Percent
Yes	422	33.1%
No	854	66.9%
Total	1276	100%

Descriptive Statistics of Dependent Variables

	N	Minimum	Maximum	Mean	Standard Deviation
Days of Poor Physical Health (Past 30 days)	1156	0	30	3.01	6.545
Days of Poor Mental Health(Past 30 days)	1151	0	30	3.83	7.315
Family Income in Constant Dollars	1276	259	119,606	30,813.31	29,348.286

The *fear* variable was recoded and had 1,276 cases, which is still a relatively large sample to use for the study. The valid percent shows the percent of those who answered to the

neighborhood fear question in the survey, so all missing cases were excluded. About one-third (33.1%) of respondents report feeling afraid to walk at night in places within one mile around them and the other two-thirds (66.9%) of respondents report not feeling afraid to walk at night in their neighborhood at night. Incomes in the analysis ranged from \$259 to \$119,606, annually with a mean income of \$30,813.31. The average days of poor mental health for all respondents within the past thirty days was 3.83 days and the average number of days for poor physical health was 3.01 days within the past thirty days.

Bivariate Analysis:

Perceptions of Neighborhood Fear Analysis

	N	Mean Annual Income in Constant Dollars	Mean Days of Poor Physical Health (Past 30 Days)	Mean days of Poor Mental Health (Past 30 Days)
Fear walking in neighborhood at night	374	\$26,753.03	3.46 days	5.13 days
Do not fear walking in neighborhood at night	764	\$33,608.53	3.24 days	3.25 days
Sig 2-tailed		.000	.693	.001

The bivariate test used for all three hypotheses was a two-tailed t-test significant at the ($p < .05$), which gives an accurate result of no error 95 percent of the time. Both income and poor mental health in the past thirty days proved to be significantly different between those that fear walking alone in their neighborhoods and those who do not fear walking alone in their neighborhoods at night. Those who reported feeling afraid to walk in their neighborhoods at night had, on average, an annual family income significantly lower (\$26,753.03) than the

average income of those who do not fear walking alone at night (\$33,608.53). Individuals with higher incomes do not fear their neighborhoods within a mile while walking at night and also report less days of poor mental health, on average, in the past thirty days (3.25). Those respondents that report feeling afraid to walk at night in their neighborhoods report lower incomes and more days of poor mental health (5.13), on average. Poor physical health within the past thirty days did not show a significant difference between those who fear walking alone in their neighborhoods at night and those who do not.

Conclusions:

Since all analytical tests I ran were bivariate tests, this increases the likelihood that the relationship differences may just be spurious. This is where multivariate analyses are more helpful in determining the actual causation of a relationship found between variables. Nevertheless, the finding that both income and mental health showed significant differences between neighborhood fear and safety perceptions also has some substantive significance. A person that feels unsafe in his or her surrounding environment may experience a negative effect his or her psychological well-being. And we can assume that individuals with low incomes tend to fear walking in their neighborhoods at night, more than those individuals with higher incomes. The analysis showed a substantially wide difference between incomes and the proportion of days of poor mental health in a month's period over the days with no mental health issues for those who report feeling afraid to walk around their neighborhoods at night.

The study I conducted was more generalizable to all populations which can explain the wide differences in both annual family incomes and poor mental health outcomes. Since the analysis included a wider range of incomes, that may be a reason for why physical health issues did not vary much between those who fear his or her neighborhood at night and those who do

not. From this we can conclude that neighborhood perceptions for the general population will more directly affect poor mental health outcomes than poor physical health outcomes.

The annual family income for the individual relates to neighborhood safety perceptions and more should be done to see exactly why it is that mental health outcomes are more prevalent than physical health outcomes in neighborhoods that may be dangerous. It is important to do more research on the effects of accumulated mental health issues throughout the life course of individuals with relatively low familial incomes and compare the extent of mental health issues accumulated in somebody's life course with a higher familial income. It is helpful to look specifically at familial annual income rather than just individual income because that places higher importance on socioeconomic factors as a whole.

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