The Correlation between Perceptions of Safety and Perceived Stress Among Residents of the Somerset Neighborhood of Kensington, Philadelphia

Opinderjit Kaur, MPH (c); Russell McIntire, PhD, MPH; Brandon George, PhD, MS
Thomas Jefferson University

**BACKGROUND**

Somerset Neighborhood
- Located in Kensington
- Economic, environmental, and social issues that come with disinvestment
- Average median income for Somerset is $26,015 per year
- Philadelphia’s city wide income is $36,957

Aims
- To assess the relationship between perceptions of safety and stress among neighborhood residents
- To discuss how the linkages between perceptions of safety and stress can inform the work of community-based agencies

Perceptions of Safety
- Vary on the target population and neighborhood under study
- Common predictors: Appearance of the neighborhood, socioeconomic status, amount of time lived in the neighborhood, exposure to violence and danger, police responsiveness

Perceived Stress
- Depends on cultural and social aspects, relates back to a person’s overall health status

**METHODS**

- Secondary data analysis from a cross-sectional study in the Somerset neighborhood
- Data was collected by trained members of the neighborhood (July-December 2017)
- Self-reported surveys from Somerset residents completed at home
- **Independent Variables:** Perceptions of Safety
  - 4 general safety questions
  - 8 police responsiveness questions
- **Dependent Variable:** Perceived Stress
  - 4 questions, used validated stress scale

**Control variables:** Demographics, years lived in the neighborhood, employment status, and home ownership status
- IBM SPSS statistical software (Version 24)
- Calculated Spearman’s Rank Order Correlation for each of our 12 perceptions of safety variables and stress, $\alpha = 0.10$
- Final model created using a multivariable linear regression model

**RESULTS**

Demographics
- 328 adults (21-71+ years of age)
- Majority Females
- Majority single
- 16 years average amount of years lived in the neighborhood
- Over half of the residents owned their own home

Bivariate
- 12 statistical tests ran, 8 variables statistically significant
- Multicollinearity checked among all variables

| Table 1: Bivariate Analysis between Perceptions of Safety and Perceived Stress |
|---------------------------------|---------------------------------|
| How safe would you say you feel walking in the community during the day time? | How safe would you say you feel walking in the community during the night time? |
| How safe do you feel children and youth in your community are going to and from school? | How safe do you feel senior citizens are in the community? |
| The police do a good job in responding to people in the neighborhood after they have been victims of crime. | The police are NOT able to maintain order on the streets and sidewalks in the neighborhood? |
| The police should spend more time working with community members and groups to solve problems? | Members of my community are interested in crime prevention activities? |

Multivariable
- 4 statistically significant

| Table 2: Multivariable Linear Regression Model for the Correlations between significant Perceptions of Safety Variables and Perceived Stress |
|---------------------------------|---------------------------------|
| Age | Length of time in community (Years) |
| The police should spend more time working with community members and groups to solve problems? | Members of my community are interested in crime prevention activities? |
| Average score on stress scale was 5.18 (range 0-16) | As age increased, stress decreased |
| As the length of time in the community (years) increased, stress increased | As crime prevention activities increased, stress decreased |
| As police spend more time working with community members, stress decreased | Strongest predictor of stress was the variable: “police should spend more time working with community members and groups to solve problems” |

**DISSCUSSION**

Main Findings
- Mean stress level was lower than we expected
- We found associations between demographics and some perceptions of safety variables
- Collaboration between police and community members have the potential to improve health
  - May also help residents feel safer and less stressed in the community

Study Limitations
- Due to the cross-sectional nature of the study, cause and effect is not clearly determined
- Potential bias from self-reported data about perceptions of safety and perceived stress
- Survey instrument should have included additional response options for police responsiveness questions

Future Direction
- Further research needed for self-reported safety and perceived stress
- Study results will be disseminated in community meeting in Somerset
- New Kensington Community Development Corporation (NKCDC) can use results during outreach with police or additional community programming

Conclusion
- Research in community based settings is crucial to informing diverse communities and enhancing overall health

**CORE COMPETENCIES**

- Describes factors affecting the health of a community
- Identify quantitative and qualitative data and information
- Information technology in accessing analyzing, using, maintain, disseminating data and information
- Identifying gaps in data
- Identifying current health, social, and environmental trends affecting health of community
- Recognize relationships that are affecting health in a community
- Provide input for developing, implementing, evaluating, and improving policies, programs, and services

**ACKNOWLEDGEMENTS**

Capstone Chair: Russell McIntire, PhD, MPH
Preceptor: Brandon George, PhD, MS
Jefferson College of Population Health Faculty
New Kensington Community Development Corporation
Family & Friends