28TH ANNUAL UC IRVINE RESEARCH SYMPOSIUM

INFORMATION OVERLOAD:

EFFECTS OF NEIGHBORHOOD WATCH APPS ON USERS' FEAR OF CRIME

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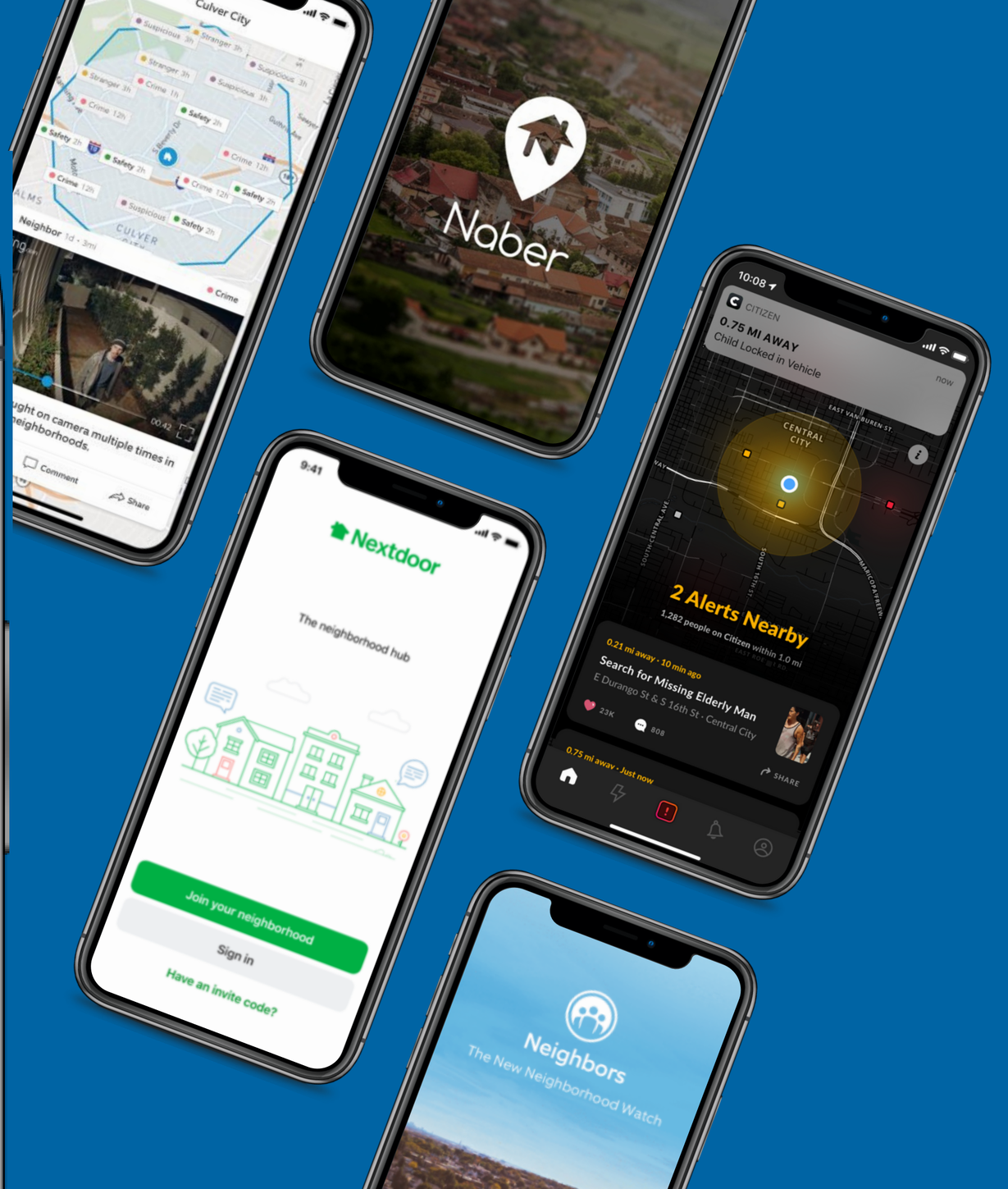

Research Question

Does consumption of crime-related information through digital neighborhood watch apps influence fear of crime?

Definitions

Digital Neighborhood Watch Apps
Mobile applications, such as Nextdoor and Citizen, that allow neighbors to share information about local criminal incidents.

Exposure to Crime
An individual's exposure to criminal incidents, regardless if they were directly involved, witnessed it first hand, or learned about it after the fact.

Perception of Crime
An individual's perceived crime rate within a given area.

Fear of Crime
An individual's emotional state reflecting their fear of criminal victimization.

Theoretical Support

Cultivation Theory

The longer individuals are exposed to violence while watching television, the more likely they are to believe social reality aligns with "television reality."
(Gerbner & Gross, 1976)

Social Amplification of Risk Framework

As information about a risk event—such as a criminal incident—goes through a communication chain, risks of the event are amplified, resulting in a false sense of vulnerability toward the risks.
(Kasperson & Kasperson, 1988)

Empirical Support

Increased Exposure to Crime

Consuming information about criminal incidents through traditional media increases one's exposure to crime.

(Einsiedel, Salomone, & Schneider, 1984)

Increased Perception of Crime

Increased exposure to crime through traditional media consumption leads to more exaggerated perceptions of crime.

(Gerbner & Gross, 1976; Tamborini, Zillmann, & Bryant, 1984; Callanna, 2012)

Increased Fear of Crime

Elevated perception of local crime has been linked to increased fear of crime and decreased feelings of safety.

(Doran & Burgess, 2012; Warr, 2000; Lub, 2016; Intravia, Wolff, Paez, & Gibbs, 2017)

Hypothesis

DNW app users will present significantly higher fear of crime than nonusers.

Research Design

Target Population
Aims to be generalized to the general public

Sample
Residents of Census tract 2198 (Los Angeles, CA)

Sampling Method
Convenience sampling: participants were recruited in person by going door-to-door

Research Method
Study utilized a paper-based, self-report survey to collect the demographics, exposure to crime, perception of crime, and fear of crime.

Sample

Traditional Demographics

- Sample Size (N): 25
- 48% male; 52% female
- 68% Latine; 16% Black; 16% White
- 68% married; 28% single
- M_{age} = 39.20 years old
- $M_{children}$ = 1.40 children in household

DNW App-related Statistics

- 64% engaged with a DNW app
- M_{time} = 77.30 minutes spent/week
- $M_{notifications}$ = 12.44 notifications received

Data Analysis

Multiple Regression

The multiple regression model looks at how predictor variables explain a proportion of variation in the outcome variable.

Independent Variables (Predictors)

- App Ownership
- Time Spent
- Notifications Received

Dependent Variables (Outcome)

- Fear of Crime in general
- Fear of Specific Crime
    - Measured on a 0 to 4 scale

Results & Interpretations
(for Fear of Crime in general)

Multiple Regression
Adj. $R^2_{multiple}$ = .53, $F(3, 21) = 7.07$, $p < .001$

- Independent variables collectively explained 53% of the variation in fear of crime in general.

Time Spent
$b_{y2 \cdot 13}$ = .009, 95% CI (.005, .014), t(24) = 4.01, p = .001

- Strong, positive, significant linear predictor
- As time spent on DNW apps increases, fear of crime increases.
    - [2 hours= 1.08 unit increase]

App Ownership
$b_{y1 \cdot 23}$ = -.767, 95% CI (-1.395, -.140), t(24) = -2.54, p = .019

- Significant predictor
- Unreliable measure for comparison

Notifications Received
$b_{y3 \cdot 12}$ = -.011, 95% CI (-.042, .020), t(24) = -.75, p = .459

- Nonsignificant linear predictor

Conclusion

Implications

Prolonged engagement with digital neighborhood watch apps elevates users' fear of crime.

- Extends the link between exposure to crime and fear of crime from traditional media to DNW apps
- Extends the link between elevated fear of crime and its negative psychological effects—feelings of violation, helplessness, anxiety, alienation, and distrust of others—to DNW apps

Limitations

- Limited sample size diminished statistical power and generalizability
- English survey limited participation

Acknowledgments

Thank you for your guidance and support!

Dr. Brandon Golob, Thesis Advisor

Dr. Amy Dent, Honors Program Director

School of Social Ecology

Undergraduate Research Opportunities Program

Giants on Whose Shoulders We Stand