

Home Security and Fear of Crime

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ABSTRACT

Using a national sample of over 3,000 (n=3,265), this study explored whether home security has an effect on fear of being a victim of crime. An index was created from 10 items to measure home security, and an index was created from five items to measure fear of crime. The more measures of home security a respondent has, the more they fear crime. Demographic variables such as age and gender also correlated positively with fear of crime.

Keywords: Home security; Fear of crime; Regression analysis

Fear of crime has been a focus of criminal justice research for many years. For obvious non-academic reasons, fear of crime is also of concern to the general public. "The increasing use of home security systems in many countries is evidence of a willingness to put a stop to fear and crime in some way" Vilalta [1], which indicates what people, will do to feel safe. Previous studies examined the relationship between sensitivity to risk and fear of crime. Killias, Warr [2-3] other researchers examined the relationship between victimization and fear of crime. Hart [4] while others analyzed the relationship between fear of crime and avoidance behaviors and demographic variables. Rader, May and Goodrum [5] through broken windows. Wilson and Kelling [6] and social disorganization Shaw and McKay [7] research has been conducted on the relationship between fear of crime and neighborhood cohesion. Actions taken to prevent or deter crime complement the work of law enforcement officers and diminish the amount of public resources necessary to catch and convict criminals. However, research into the effectiveness of "private actions" to deter criminals "lack[s] consensus" de Oliveira [8].

REVIEW OF THE LITERATURE

While fear of crime is a much studied area, there is a paucity of research examining the effect of home security systems on fear of crime. While it might seem obvious that fear of crime would motivate someone to buy a home security system, does having a system for home protection make people feel safer?

Utilizing a survey of over 1,500 (n=1,549) households in Mexico City, Vilalta [1] examined the effect of a home security system on fear of crime because, "previous studies have not considered home security systems in their descriptive models for fear of crime" [1]. This could be due to an automatic assumption that having a home

security system makes people feel safe, but is this the case? Vilalta [1] analyzed data that was collected by the Center for Economic Research and Teaching (CIDE) in Mexico City. Specifically, the data used from this study was collected through personal interviews with 1,549 households in Mexico City conducted as part of the August 2007 Mexico City Metropolitan Area Survey on Victimization and Institutional Efficacy (ENVEI) Vilalta [1]. Vilalta [1] operationalized home security as, "burglar alarm systems, special door locks, reinforced windows, watchdogs, high walls, doorman, formal monitoring systems in the neighborhood, and informal monitoring systems with neighbors" [1]. The most frequently used method of home security in Mexico City is high walls, but people who had high walls around their homes actually felt less safe than people who did not Vilalta [1]. What Vilalta [1] found that none of the home security systems listed had an effect on fear of crime. Other factors that had an effect on feelings of safety included sex (women felt less safe than men), living in a neighborhood that was "perceived to be unsafe" Vilalta [1] and trust in the police. One interview question asked about feelings of safety when home alone, and it would be interesting to know how much of a mitigating effect not being home alone, and with how many people, would have on feelings of safety.

de Oliveira [8] examined the effects of "precaution technologies" on household robbery and burglary, utilizing data from the Brazilian National Household Sample Survey for Brazil in 2009. Crime requires opportunity as well as the absence of a guardian who discourages crime, and criminals prefer to victimize homes in the absence of such guardians. Therefore people take preventive action (e.g., buy an alarm system, put a fence around their property, etc) to reduce the chances of their home being burglarized, since such precaution technologies "increase the effort required to commit a crime" and might deter individuals who are so motivated

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Received: March 25, 2021; Accepted: April 21, 2021; Published: April 23, 2021

Citation: Verrecchia PJ (2021) Home Security and Fear of Crime. Social and Crimonol 9: 210.

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Oliveira [8]. The purpose of this study was to examine the impact of certain preventive technologies on victimization of burglary and robbery in Brazil. What de Oliveira [8] found was that home security technologies do not reduce home burglaries, but certain combinations may reduce home robberies. The combination of electric fences, alarms and private security reduces the likelihood of home robbery by almost 10%, but when they are combined with a dog the likelihood of home robbery is reduced by 86% de Oliveira [8].

Utilizing data from a national survey (n=3,265), the purpose of the current study is to examine the association between home security and fear of crime, along with other demographic and contextual variables.

MATERIALS AND METHODS

The current study was conducted using a panel sample from more than 30 million possible respondents managed by the Qualtrics Company. Data collection was completed over five days in March 2017. Gun owners were oversampled (50%) to allow for comparisons within the sample between gun owners and non-gun owners, and the sample was evenly split in gender. The sample was limited to American residents over the age of 18.

PARTICIPANTS

Over three thousand (n=3,265) participants completed the survey. The average age of our sample was 25.66 years (SD=16.48). Our sample was mostly female (55.6%), white (52.1%), and did not have a college degree (59%). Under half (41%) possessed a college degree or higher, just over half (52.2%) classify themselves as politically conservative, just over half (53.1%) own a firearm, and the majority (73.8%) have never been the victim of a violent crime (assault, rape, robbery, etc). The demographics for our sample can be found in (Table 1).

Since the purpose of this study is to examine the effect of home security on fear of crime, an index was created to measure fear of

Table 1: Participant Demographics (N=3265).

	Demographic	Frequency	Percent
Age	18-27	549	22.4
	28-37	609	24.8
	38-47	358	10.8
	48-57	367	11.2
	58-67	366	11.1
	68-77	177	5.5
	78-87	26	0.9
	Over 88	3	0.0
Sex	Male	1091	44.4
	Female	1364	55.6
Education	Some college or less	1448	59.0
	College degree and higher	1007	41.0
Politics	Liberal	686	47.8
	Conservative	749	52.2
Own a Firearm	Yes	1603	53.1
	No	1418	46.9
Race	Non-white	1563	47.9
	White	1702	52.1

crime from five Likert scale statements, which are as follows: I am afraid someone will break into my home while I am there; I am afraid of being attacked by someone with a weapon (knife, club, gun, or other weapon); It is not safe to be out at night; I am afraid that someone I know will become a victim of crime; and I am afraid to walk alone at night. By creating an index, we hoped to use a multidimensional approach to measuring fear of crime, as called for by Nicole Rader when she suggested a reconceptualization of the study of fear of crime. Each statement was coded as strongly disagree (1), disagree (2), neither agree nor disagree (3), agree (4), and strongly agree (5). By combining these statements, the index would range from a low of five (everyone strongly disagrees) to a high of 25 (everyone strongly agrees). The mean score for the index was 16.06 (SD=4.91), indicating that our sample leans slightly toward being afraid of crime (with a midpoint in the index of 15). Cronbach's Alpha for the Fear of Crime Index was a robust .880. The responses to each Fear of Crime Index statement can be found in (Table 2).

Another index was created to measure home security. Respondents were asked "Please indicate which of the following are currently in use for protection of your home," then were asked to answer yes or no to each of the following: alarm system; dog; security lights; gun; fence; door bolts; additional door locks; window guards; police

Table 2: Fear of Crime Index Statements.

Statement	Frequency	Percent
I am afraid someone will break into my home while I am there		
Strongly Disagree	293	9.6
Disagree	574	18.8
Neither	793	26.0
Agree	890	29.2
Strongly Agree	497	16.3
I am afraid of being attacked by someone with a weapon (knife, club, gun or other)		
Strongly Disagree	253	8.3
Disagree	515	16.9
Neither	774	25.4
Agree	1010	33.1
Strongly Agree	495	16.2
It is not safe to be out at night		
Strongly Disagree	262	8.6
Disagree	615	20.2
Neither	841	27.6
Agree	888	29.1
Strongly Agree	441	13.5
I am afraid that someone I know will become a victim of crime		
Strongly Disagree	208	6.8
Disagree	416	13.7
Neither	813	26.7
Agree	1138	37.3
Strongly Agree	472	15.5
I am afraid to walk alone at night where I live		
Strongly Disagree	512	16.8
Disagree	802	26.3
Neither	669	22.0
Agree	646	21.2
Strongly Agree	418	13.7

department or other security identification stickers; and automatic timers or security timers. Each statement was coded as no (0) or yes (1). By combining these statements the index would range from a low of 0 (someone does not have any of these security measures) to a high of 10 (someone has every security measure). The mean score for this index was 3.17 ($SD=2.04$), which indicates that the average person in our sample has about three of these home security devices. Most of our sample has door bolts (57.5% said yes); while the least utilized home security measure was police department or other security identification stickers (12.6%). Cronbach's Alpha for the Home Security Index was .690. The responses to each Home Security Index statement can be found in (Table 3).

RESULTS

Our dependent variable (the Fear of Crime Index) was dichotomized to run a logistic regression model. The goal of this study is to determine whether there are differences in fear of crime based on different levels of home security, so all unsure responses were eliminated from our analysis. The dichotomized index predicts the probability of membership in terms of fear of crime. The aim of this study is to learn what combinations of our independent, demographic, and contextual variables would predict the probability of fearing (or not) crime.

Table 3: Measures of Home Security.

Statement	Frequency	Percent ¹
Please indicate which of the following are currently in use for the protection of your home:		
Alarm System	1035	31.7
Dog	1481	45.4
Security lights	1092	33.4
Gun	1497	45.8
Fence	969	29.7
Door bolts	1877	57.5
Additional door locks	1079	33.0
Window guards	562	17.2
Police department or other security identification stickers	413	12.6
Automatic timers or security timers	352	10.8

¹Each statement had a response of yes or no, which is why the percentages total more than 100%.

The logistic regression model determined which independent variables influenced fear of crime. Regression results for the model indicate that the overall model was statistically reliable (Model $\chi^2(9)=138.033$, $p<.001$) and correctly predicted over 65 percent (65.8%) of the responses. Our model revealed that people who had more home security measures also had greater fear of crime ($\beta=.073$, $p<.01$), and they were over one times more likely to fear crime than participants who has fewer home security measures ($\text{Exp}(B)=1.075$). Additionally, younger respondents expressed greater fear of crime more than older respondents ($\beta=-.014$, $p<.001$) and they were over 99% more likely to fear crime ($\text{Exp}(B)=.986$). The third predictor variable that was significant in our model was previous victimization for a property crime. Previous property crime victims were more likely to fear crime than non-victims ($\beta=-.289$, $p<.01$), just under 75 percent more likely ($\text{Exp}(B)=.749$). Our model also found that non-whites were more likely to fear crime than whites were ($\beta=-.390$, $p<.01$), just under 70 percent more likely ($\text{Exp}(B)=.677$). Finally, our model found that respondents who see crime as a significant problem were more likely to fear crime ($\beta=.430$, $p<.001$), and they were one and a half times more likely ($\text{Exp}(B)=1.537$) than those who do not see crime as a significant problem. The results for our model can be found in (Table 4)

DISCUSSION

The goal of the present study is to examine the effect home security on fear of crime. We found that the more home security someone has, the more they fear crime. While this may seem counterintuitive, this could be explained by reasoning that someone who fears crime would invest in more home security (e.g., buy a home alarm system, get a dog, add more door bolts, etc). The average number of home security devices for our sample was around three, so this begs the question that if they have three devices for home security, why do they still fear crime? Further qualitative research should explore the direction of this relationship.

In our sample, more people feared that someone they know would become a victim of crime (52.8% agreed and strongly agreed) than they feared that their home would be broken into (45.5% agreed or strongly agreed), or that they would be attacked by someone with a weapon (49.3% agreed or strongly agreed). Perhaps our sample fears crime more for others than for themselves.

This research contributes to the literature because it is one of few studies to use home security as an independent variable and

Table 4: Logistic Regression Results for the Fear of Crime Index.

Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Home security index**	.073	.026	7.680	1	.006	1.075
Victim of a property crime**	-.289	.105	7.605	1	.006	.749
Victim of a violent crime	-.195	.119	2.697	1	.101	.822
Age***	-.014	.003	20.592	1	.000	.986
Gender*	.231	.099	5.468	1	.019	1.260
Race**	-.390	.113	11.829	1	.001	.677
Education	-.031	.048	.424	1	.515	.969
The police are effective when I call for help	-.066	.050	1.760	1	.185	.936
Crime is a significant problem*** in the United States	.430	.054	62.838	1	.000	1.537
Constant***	.600	.046	168.18	1	.000	1.822
Model Chi-Square	138.033					
Nagelkerke R ²	.090					

Note: *** $p<.001$; ** $p<.01$; * $p<.05$

fear of crime as a dependent variable. Also, this study sets itself apart by using indices to examine fear of crime, rather than using questions that are dichotomous (do you fear crime or not?). These are complex, nuanced issues that deserve complex, nuanced investigation.

There are methodological limitations to this study. While this is a nationally representative survey with a sample of over 3,000, that gun owners were oversampled and no one under the age of 18 took part limits the generalizability of our findings. In addition, there were other variables that were not captured and included in the analysis that could affect feelings of safety such as household income, state of residence, and satisfaction with local law enforcement Rader, May and Goodrum [5]. In addition, respondents were asked general fear of crime questions, not just about fear of being victimized in their home. Perhaps with three items for home security they feel safe when they are there, just not when they leave their residence. Another limitation could be the use of an electronic survey in collecting data. Sue and Ritter [10] report that nonresponse bias is an issue with web-based surveys. In 2012, a survey regarding gun policies on college campuses was conducted both through an email survey and a pen and paper survey in classrooms at the same university. Wells, Cavanaugh, Bouffard and Nobles [11]. The face to face surveys reported much higher response rates (around 90%) than the web-based surveys (just over 10%). However, Groves [9] indicates that low response rates may not necessarily be indicative of bias. Wells, Cavanaugh, Bouffard and Nobles [11] provide an explanation of leverage-saliency theory, which states that the decision to participate in a survey can be influenced by how important the topic is to respondents.

By looking at the effect of home security on fear of crime using a different methodological approach, and building on previous studies, we hope that we have added to the understanding of this important issue. Future research should continue in this vein,

but more and different statements could be used to develop other indices to explore the nature of this relationship. What seemed to be a fairly straightforward relationship (people who have home security measures would not fear crime), apparently is not.

REFERENCES

1. Vilalta CJ. Fear of crime and home security systems. *Police Pract Res.* 2012;13: 4-14.
2. Killias M. Vulnerability: Towards a better understanding of a key variable in the genesis of fear of crime. *Violence Vict.* 1990;5:97-198.
3. Warr M. Fear of crime in the United States: Avenues for research and policy. National Institute of Justice. 2000;4.
4. Hart TC. Using typologies of victimization worry to create strategies for reducing fear of crime. *Police Pract Res.* 2017;18:407-419.
5. Rader NE, May DC, Goodrum S. An empirical assessment of the "threat of victimization": Considering fear of crime, perceived risk, avoidance, and defensive behaviors. *Sociological Spectrum.* 2007;27:75-505.
6. Wilson JQ, Kelling GL. Broken windows: The police and neighborhood safety. 1982;127:29-38.
7. Shaw CR, McKay HD. Juvenile delinquency in urban areas: Chicago. IL: University of Chicago Press. 1942.
8. De Oliveira CA. The impact of private precautions on home burglary and robbery in Brazil. *J Quant Criminol.* 2018;34:111-137.
9. Groves RM. Non response rates and non-response bias in household surveys. *Public Opin Q.* 2006;70:646-675.
10. Sue VM, Ritter LA. Conducting online surveys. Los Angeles. CA: Sage. 2007.
11. Wells W, Cavanaugh MR, Bouffard JA, Nobles MR. Non-response bias with a web-based survey of college students: Differences from a classroom survey about carrying concealed handguns. *J Quant Criminol.* 2012;28:455-476.