

Protecting Older People From Burglary: Prevalence of Security Devices in the Homes of Older Adults in Perth, Western Australia

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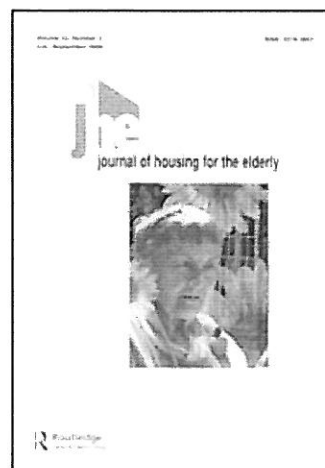
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Abstract

Fear restricts the activity of older adults, potentially leading to social isolation and unhealthy life styles. Consequently, this population remains a priority for home security research and intervention. One option is to increase home security by installing security devices. However, little is known about how older adults protect their homes. In this study, 5,582 community-dwelling older people completed a cross-sectional survey. The survey was able to document the prevalence of security measures taken by older adults. More than 70% of the respondents had security screens and key-operated deadlocks and 148 (2.7%) respondents reported no security features. Respondents living alone had the lowest prevalence of home security devices. Female living alone protected their home differently from male living alone by installing different security devices. Logistic regression analysis indicated that older adults living in detached houses feel particularly vulnerable to burglary ($p < .001$). These survey findings have practical implication for burglary prevention.

Keywords: Security devices, home burglary, crime prevention

INTRODUCTION

The Australian population aged 65 years and older is projected to increase rapidly both in numbers and as a proportion of the total population from 2.3 million (12%) in 1999 to approximately 4.2 million (18% to 19%) by 2021 (Australian Bureau of Statistics [ABS], 2002a). The World Health Organization's Active Ageing Policy Framework suggests that three pillars support Active Ageing, which is defined as "the process of optimising opportunities for health, participation and security in order to enhance quality of life as people age" (World Health Organization [WHO], 2002). Crime impacts on all three pillars of the WHO framework and must be considered from the perspective of how it affects healthy aging populations (Kalache & Gatti, 2002).

Burglary has become a matter of serious concern in developed countries (Tseloni, Wittebrood, Farrell, & Pease, 2004). In Australia, the offence of home burglary is among the most prevalent forms of crime (ABS, 2002a). Data from the recent Australian Associated Motor Insurers Limited survey indicated that four of ten Australians have experienced a break-in at some time (Australian Associated Motor Insurers Ltd., 2004). Furthermore, Perth has an infamous reputation as Australia's burglary capital. From September 2003 to October 2004, an estimated 38,400 Western Australian households (4.9%) had reported a victim of an actual or attempt home break (ABS, 2004).

Surveys on crime are usually conducted to explore patterns of burglary victimization among the general public. Consequently, the information collected may not reflect the concerns of older adults or the measures they take to protect their homes. Risk factors of burglary are complex and those relevant to older adults are different from those reported for other sectors of the community (Tseloni et al., 2004). Approximately 35% to 40% of older Australians will live alone by 2021 (ABS, 2002a), and this population sub-group is a soft target for domestic burglary according to Australian Associated Motor Insurers Limited (AAMI). More studies of the vulnerability and home protection strategies of older adults are needed (Mawby, 2004). The recent Australian Institute of Criminology report, "A Safe and Secure Environment for Older Australians," reviewed the issues of providing a secure environment for older adults in Australia. It stressed the importance of studying domestic safety and security in this population subgroup (James, Graycar, & Mayhew, 2003). Installation of security features is expected to reduce the events of household crime, whereas the strategy of target hardening has been recommended in crime prevention initiatives (Frances & Nils, 2000). The cross-sectional survey reported here provides a snapshot of the home security status of older Western Australian adults.

RESEARCH METHODOLOGY

Study Design and Recruitment Procedure

A cross-sectional postal survey of individuals aged 65 or older residing in the Perth metropolitan area was conducted between January and March 2005. Survey respondents were required to be able to read and understand English. Potential respondents were ineligible if they were institutionalized (i.e., hostel or nursing home residents) or if a member of the same household had previously completed the questionnaire.

To recruit respondents, the survey was conducted using the membership lists of the Council On The Ageing Western Australia (COTA WA), the Positive Ageing Foundation, and Retirees Western Australia. The Curtin University Human Research Ethics Committee approved the project (SPH 003-04). The Executive Director of COTA (WA) wrote to potential respondents to invite them to participate in the study. The survey questionnaire was mailed with the letter and a paid reply envelope to 15,000 household memberships of the three associations. In the interests of anonymity of the potential respondents, the investigators had no access to the mailing data base.

Instrument

The self-administered structured questionnaire (available on request) consisted of Part A (safety and security measures), Part B (perception and experience), and Part C (general information). The 35 questions took about 15 minutes to complete. Most questions required a single response by ticking a box, but some questions required the participant to tick all applicable boxes. Part A of the questionnaire sought information about contents insurance coverage and security devices installed and requested the participant to rank security features in terms of property crime prevention effectiveness. Part B focused on the perceived social support and relationships of older adults, attitudes and perceptions regarding the burglary/break-in problem in WA, and whether they had been victims of burglary within the past 3 years. Part C solicited general information on residence type, household composition, and basic demographic characteristics. These questions were taken from the ABS 2002 General Social Survey and the ABS's 2004 WA Home Safety and Security Supplementary Survey on household security devices. The content validity of the questionnaire was verified by an expert panel, which included local police, city council officials, COTA (WA) representatives, and other stakeholders who had an interest in developing home security programs.

Pilot Testing

The validity of the instrument was then confirmed by a pilot test involving 498 community-dwelling older adults. These voluntary participants (corresponding to about 10% of the target sample) were recruited with the assistance from the city of Melville between July and September 2004. The questionnaire was distributed to senior volunteers at community halls and centers along with an information sheet and was supported by a verbal briefing on the study. The self-administered questionnaire was collected immediately after completion. With the feedback from the pilot participants, investigators had modified the format and wordings of the questionnaire items, aiming at improving face and content validity of the measurement tool. The structured questionnaire was then modified in response to the feedback received and returned to the expert panel for final changes and approval.

Post-Survey Consultation Sessions

To inform local government policies and programs, another sample of 123 participants randomly selected from the COTA (WA) membership list were subsequently invited to three consultation sessions after the survey. The consultations took place in various community centers, with groups varying in size and composition. In the process, participants expressed their personal views about the themes or issues identified from the survey.

Statistical Analysis

The data were screened and checked for plausibility prior to data analysis. Implausible and inconsistent data were identified and corrected or discarded. Prevalence rates of risk factors and security devices were estimated. Descriptive and other summary statistics were obtained. Both univariate and multivariate statistical analyses were performed to investigate relationships between variables. After adjusting for potential confounding variables, the risks of burglary were assessed using logistic regression analysis.

RESULTS

After removing blank and mostly incomplete questionnaires ($n = 67$), 5,582 questionnaires were available for analysis, representing an effective response rate of 37.2%.

Demographics

The average age of respondents was 73.9 (standard deviation [SD] = 6.86) years. Women made up 57.5% of the sample. Most respondents (59.2%) were born in Australia, 28% were born in the United Kingdom or Ireland, 3.8% were born in other European countries, and 3.3% were born in Asia. Of the 2,242 participants born overseas, the average number of years residing in Australia was 38.8 (SD = 14.28) years. Pensioners comprised the majority of the sample (66.6%) and 48.5% of them had retired. Only 2.5% were employed for a wage and 2.1% were self-employed. Less than half of the sample (43%) completed high school, but 22.8% reported university or other tertiary education and 14% attended vocational tertiary education or had a diploma. About 43% of respondents rated their health as "good," 22.3% as "fair" and 24.4% as "very good."

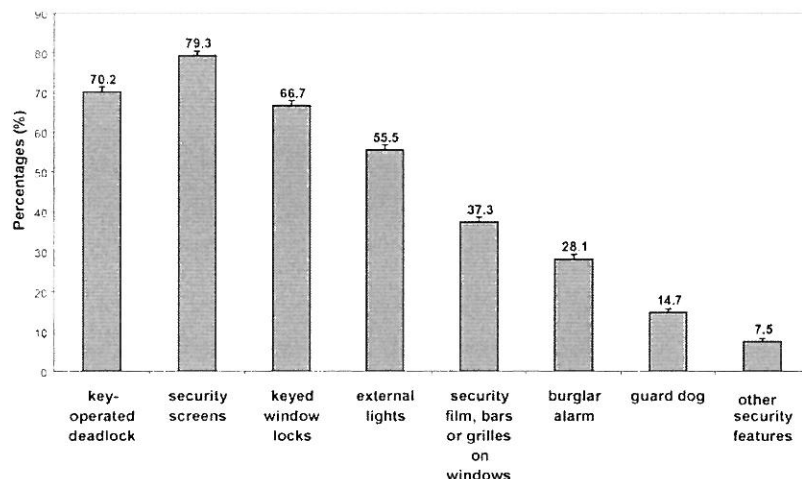
Domestic Arrangements

Most respondents (53.3%) lived with a spouse or de-facto, but 38.4% of the participants lived alone. We found that 62.2% of the

respondents lived in detached houses, 18.4% lived in flats, units or apartments on the ground floor, 11.7% lived in semi-detached houses or terrace houses, 3.0% lived in flats, units, or apartments above the ground floor, and 4.7% reported unspecified other living arrangements. A high proportion of the respondents (81.6%) fully owned or had mortgages on their homes. Only 12.5% occupied private or public rental accommodation. On average, the older adults had been living at their current residence for 15.8 (SD = 5.37) years.

Home Security Measures

Security screens, key-operated deadlocks, keyed window locks and external lights, security film, bars or grilles on windows, burglar alarms, and guard dogs were reported as commonly used security measures to prevent burglary at home. **Figure 1** presents the prevalence of security features reported by the respondents, using 95% confidence intervals in statistical analysis. As few as 148 participants (2.7%) had made no provision for domestic security.



[Enlarge Image]

FIGURE 1 Percentage of respondents with specified home protection devices.

When asked which of the security devices respondents would recommend others to install to improve home security, the highest recommended device was the key operated deadlock (34.4%) followed by security screens (33.9%), burglar alarms (33.2%), external lights (29.6%), keyed window locks (26.8%) and security film, and bars or grilles on windows (21%).

Further analysis was conducted by grouping respondents in age groups. Cross tabulation revealed that within the 85 years and older age group, fewer respondents used key-operated deadlocks in their homes (Table 1). Nevertheless, respondents older than 75 years of age were more likely to use security screens to guard main entrances than their younger counterparts. The data revealed that adults older than 80 years of age generally lacked window security (fewer keyed locks and bars/grilles in window). Respondents in this age range also had a lower prevalence of external lights and burglary alarms. Regression was employed to explore whether variables such as "age" and "gender" are factors influencing the installation of security devices in the sample group, however, the statistical modeling is insignificant.

TABLE 1 Prevalence of Reported Security Devices by Age Group

Security Devices	Age Group					
	65-69	70-74	75-79	80-84	85-89	90+
Key-operated deadlocks	72.3%	72.9%	70.8%	66.4%	59.5%	50.0%
Security screen in front door	75.7%	79.1%	81.0%	82.0%	82.2%	84.6%
Keyed window locks	68.5%	70.3%	66.7%	63.1%	56.3%	50.0%
Security film, bars or grilles on windows	35.7%	35.8%	41.1%	41.4%	36.4%	19.2%
External lights	60.3%	55.7%	55.1%	48.1%	49.3%	34.6%
Burglar alarm	33.6%	31.3%	25.7%	20.3%	17.5%	7.7%
Guard dog	17.7%	15.8%	12.0%	11.1%	8.2%	3.8%

Social and Personal Factors Relating to Home Security Features

Respondents who lived alone reported less prevalence of key-operated deadlocks (65.8% versus 73.1%, $P < .001$), external lights (50.0% versus 59.0%, $P < .001$), burglar alarms (19.7% versus 33.3%, $P < .05$), and guard dogs (11.1% versus 17.0%, $P < .001$). However,

those respondents living alone reported a higher prevalence of security screens (84.1% versus 76.4%, $P < .05$) and security film, bars or grilles on windows (41% versus 35.1%, $P < .001$).

A comparison of security features between male and female respondents who lived alone revealed that men were significantly ($P < .001$) more likely than women to live in houses with key-operated deadlocks (74.9% versus 67.0%), keyed window locks (69.9% versus 64.4%) and burglar alarms (33.3% versus 24.1%). In contrast, women were more likely to live in houses with security screens or security film (82.8% versus 74.5%) and bars or grilles on the windows (39.8% versus 34.1%).

The results also revealed that those who owned their home had the highest prevalence of security devices, most notably key-operated deadlocks (72.2%), external lights (59.6%), burglar alarms (31.9%), and guard dogs (16.1%). The prevalence of burglar alarms reported by those owning their homes (31.9%) was markedly higher than for those renting privately (12.8%), renting publicly (6.3%), or reporting other living arrangements (15.1%). Overall, the differences in prevalence of security devices were significant ($P < .001$).

Of the eight most commonly reported security devices, respondents at all education levels had installed more than four of them (the first fourth items of Table 1). Although no significant difference was found between educational groups overall ($P = .169$), respondents with a university or vocational tertiary education and those who had completed high school reported a higher prevalence of burglar alarms than respondents in other groups. Conversely, respondents reporting primary school as their highest level of education were more likely to have installed security screens on the front doors of their homes.

Risk Factors of Burglary Events

Logistic regression analysis was next performed to investigate the risk factors related to burglary events in the past 3 years, the results of which are summarized in Table 2. It is evident that keeping a guard dog could reduce the risk of burglary, whereas those living in detached houses were at a higher risk of burglary. High scores for fear of night time burglary and for being the victim of burglary while away from home were negatively associated with having been burgled in the past 3 years. Nearly half of the respondents reported having experienced a burglary at some time and 22.2% reported being burgled within the past 3 years, but 23% of the burglaries reported by respondents as occurring in the past 3 years were not reported to police. Respondents experiencing burglary in the past 3 years reported a significantly higher prevalence of most home security devices ($P < .001$).

TABLE 2 Logistic Regression Results of Factors Affecting Burglary at Home of Older Adults in WA.

Risk factor	<i>P</i>	Odds Ratio	95% Confidence Interval
Having a guard dog	.014	0.773	(0.630, 0.949)
High scores for fear of night time burglary	.003	0.950	(0.918, 0.983)
High scores for fear of burglary while away from home	.001	0.931	(0.901, 0.962)
Living in a suburb prone to burglary	.001	1.337	(1.283, 1.394)
Living in a detached house	.001	1.279	(1.102, 1.483)

DISCUSSION AND IMPLICATIONS

Of the eight most commonly installed security devices, the respondents had installed over half of them. Therefore, it appears that the older adults are alert to their risk for burglary and have a good sense of crime prevention.

Comparison With the ABS 2004 Survey

A survey on crime and safety of WA residents of all ages was conducted by the ABS in 2004 (ABS, 2004). When comparing our results for older adults to data for all households, we found a slightly lower proportion of the general population had installed security devices: security screens on doors (68.9% versus 79.3%), key-operated deadlocks (66.9% versus 70.2%), keyed window locks (61.2% versus 66.7%), external sensor lights (48.7% versus 55.5%), security screens, window film, bars or grilles on windows (35% versus 37.5%), and burglar alarms (27.4% versus 28.1%). However, 40.9% of the general population had dogs as opposed to only 14.7% of older adults in the sample. Therefore, older adults seem to protect their homes against burglary differently from the general population.

Prevalence of Security Devices

Some research has suggested that burglar alarms are an effective deterrent to break-in (Buck, Hakim, & Rengert, 1993; Hakim & Shachmurove, 1996) but further research into the effectiveness of burglar alarms has been called for. In our sample, there was a low prevalence of burglar alarms (28.1%). Potential reasons for this include lack of knowledge about burglar alarms, lack of belief in their effectiveness, inconvenience, lack of familiarity with or fear of the technology involved, and cost. During the post-survey consultation sessions, many older adults criticized burglar alarms, some of whom said they would not use their systems any more because they had proved to be a nuisance (going off at the wrong times, being set off by insects, or disturbing neighbors). Some older people found burglar alarm systems too difficult to use because keypad buttons are too small and liquid crystal displays are difficult to read. Participants also commented on the lack of police response to alarms and the need to have a monitored system, which is expensive and unaffordable for many older people.

Owner occupiers had a higher prevalence of security devices compared to renters and those with other living arrangements, especially in the case of burglar alarms. This finding is consistent with the general population (ABS, 2004) and implies that older renters may be a group in need of security intervention. Private tenants face particular difficulty in regard to security hardware. They may be reluctant to improve their landlord's premises, prohibited from installing fixtures under the terms of their lease or unable to afford security hardware. Because every tenant has the right to safety and security, consideration should be given to amending the Residential Tenancy Act WA to require all landlords to provide a minimum level of security in private rental properties.

Although this research did not address the issue of "neighborhood factor" in crime prevention, it was widely believed that people living in high-risk neighborhoods tend to take more measures to tighten security of their residence against burglary.

Priorities for Burglary Prevention Programs?

In comparison with other population subgroups, older adults who lived alone had a lower prevalence of most security devices, possibly due to the financial burden of installation. As the number of older people living alone increases (ABS, 2002a), the security of this population group must be addressed in future crime prevention initiatives. Similarly, the lower prevalence of security devices in the dwellings of the 85 years and above age group indicates they are at elevated risk for burglary and thus in need of education and advice on protecting their homes.

Research has suggested that being female may be a risk factor for fear of crime (Acierno, Rheingold, Resnick, & Kilpatrick, 2004). In this study, the prevalence of security devices varied between males and females, which may reflect gender specific attitudes toward home security and crime. Further research is needed to investigate the relationship between gender and the prevalence of home security devices in older adults. Meanwhile, stakeholders involved in organizing and delivering crime prevention programs should be mindful of gender differences relevant to home protection. In particular, gender specific strategies must be developed to ensure that the concerns of women and men are adequately addressed.

To prevent crime and unwanted intruders, Newman (1972) advocated creating more Defensible Space, allowing residents assert responsibility for their safety and control in common places such as outdoor grounds, lobby and laundry areas. When appropriate, such context should be incorporated in designing residence for older adults architecturally.

Fire Risk and Unreported Crime

Some older adults reported that they do not use security hardware devices because of their fear of being locked in if there is a fire. Inappropriate hardware such as multiple chains and locks that would prevent swift egress from the home was reported as being of particular concern. Consequently, this group may be at greater risk for burglary. Moreover, the high level of unreported burglary (23%) in our sample may undermine the importance of burglary in this subgroup. In an era when data on crime is crucial to apprehend perpetrators and crime prevention, the under-reporting perpetuates the misallocation of resources, resulting in many burglaries going uninvestigated. More research is needed into the reasons for not reporting burglaries and in the failure of the police to investigate burglaries unless they involve physical injury. Community education may assist seniors to raise such matters with the police and to work in collaboration with the police to make their homes less vulnerable to crime.

Limitations of the Study

We readily acknowledge that our study has limitations. The voluntary respondents were recruited through community organizations. Therefore, our convenience sample of 5,582 respondents may not be representative of the older adult population in Perth, WA. Respondents from culturally and linguistically diverse communities were underrepresented (7.7%). The proportion of people with a tertiary education was also considerably higher. Consequently, the possibility of self-selection bias cannot be excluded. Furthermore, the information obtained was based on self-reported responses, which were difficult to verify. Although respondents who were burgled in the past 3 years reported a higher prevalence of most home security devices, we cannot determine whether these measures were installed prior to or as a result of the burglary. On the other hand, our survey protected the anonymity of our respondents; they had no reason to provide misleading information.

CONCLUSION

This cross-sectional survey allowed us to investigate the security status of older Perth residents. Characteristics of older adults who reported a lower prevalence of specific home security devices and who may be priority groups for home security education or intervention were identified. These included older adults residing on rental properties, living alone, and those aged 85 years and older. Further research is needed into factors influencing choice of security devices by older people and reasons for the low reporting rate of household crime to police. The findings of this study have practical implications for policy and programs that could reduce fear of burglary and lead to a safer and more secure living environments for older Western Australians.

The following are some key points about the information gathered in this article:

- Older adults who lived alone had a lower prevalence of most security device, making their homes vulnerable to crime.
- In delivering crime prevention programs, stakeholders should be mindful of gender differences relevant to home protection.
- More research is needed into the reasons older people do not report burglaries to police.
- Private tenants face particular difficulty in regard to security hardware, consideration should be given to amending the Residential Tenancy Act to require all landlords to provide a minimum level of security in private rental properties.

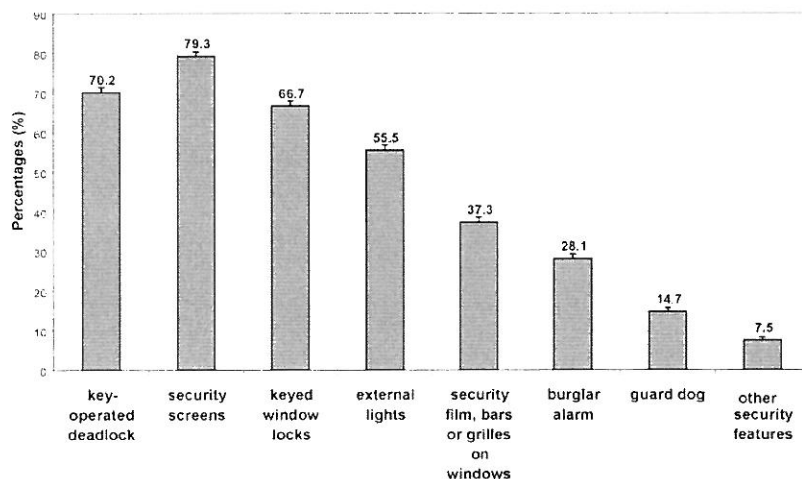
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