

Unexplained victimisation of burglaries

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Summary



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Summary

The Crime Victim Survey is an annual large-scale population survey covering topics such as quality of life, nuisance in the neighbourhood, feelings of safety, being a victim of various types of offences, the opinions of citizens about the actions of the police, and crime prevention measures. This annual survey is commissioned by the Ministry of Security and Justice, municipalities and the National Police.

In recent years the Crime Victim Survey has collected a lot of data. The Ministry of Security and Justice wants to use this data to carry out more and better secondary analysis that can form the basis for policy development in the field of safety and crime prevention. To explore the possibilities we have conducted secondary analyses on the data related to burglary victimisation in this study. The Crime Victim Survey includes questions about the existence and use of prevention methods in and around the house to combat burglary. This may provide opportunities to examine the relation between victimisation and prevention: do these prevention methods actually work?

With the ever-growing emphasis placed on evidence-based practice, these 'what works and what does not work questions' are of great importance.

Research questions

The aim of the study is to examine what can be concluded on the basis of the (historical) data from the Crime Victim Survey about the relationship between (i) the victims of a burglary and (ii) the extent to which residents, municipalities and the police take preventive measures and (iii) the geographic, demographic and socio-economic characteristics of residents.

In this context the following questions were formulated:

- Which (combination of) burglary prevention measures are the most effective in combatting burglary?
- Which prevention gaps can be identified with respect to burglary victimisation? A 'prevention gap' occurs when a particular group of people are much more often the victims of a burglary because this group take fewer prevention measures or are not able to take more measures.

We studied the extent to which these questions could be answered using the (historical) data from the Crime Victim Survey.

Crime Victim Survey

The current Crime Victim Survey meets the need of national and local authorities, the police and justice organisations for information on the development of social safety. Several versions preceded the current Crime Victim Survey: changes were made to the structure of the questionnaire, the questions and the research method. All the changes took into account the fact that special attention needed to be paid to the objective of collecting information on security indicators at national and local level periodically and in a uniform manner. The aim is mainly to show the increase and/or decrease in phenomena; this involves policy questions such as: is the number of burglaries (in the

Netherlands, in region X in city Y) declining or not, is there an increase in people's willingness to take burglary prevention measures?

Because of the changes that were introduced the current Crime Victim Survey is not useful for research into the relation between the presence of prevention measures and burglary victimisation. The current Crime Victim Survey does not allow a distinction to be made between being a victim of a successful or an attempted burglary. (Only information on the latest incident is available.) As we know from the literature that this distinction is crucial for this study, we have used the predecessor to the current Crime Victim Survey – in which this distinction is still possible – for the secondary analysis i.e. the Integrated Crime Victim Survey (the IVM in Dutch).

Approach

To answer the first question we have calculated the Security Protection Factors (SPF) – in accordance with a study that Tseloni, Thompson Grove Tilley and Farrell (2014) carried out in England and Wales – for the burglary prevention measures that are present in their houses according to the respondents. These cover extra locks on doors and windows, exterior lighting, burglar alarms, shutters and leaving a light on when nobody is at home. Based on the British Crime Survey for England and Wales (CSEW) Tseloni et al (2014) used this method to show which (combination of) prevention measures – nine in the case of CSEW – offer the best protection against burglary. The SPF is an indicator of the degree of protection against burglary which can be assigned to each household. For example, when a certain combination of prevention measures has an SPF of 20, it means that this combination offers 20 times more protection against burglary than when there are no prevention measures present in the house at all. In England and Wales the deployment of (combinations of) prevention measures proved to be very effective. To see whether this also applies to the Netherlands we used the years 2009, 2010 and 2011 of the Integrated Crime Victim Survey. The data of 285,721 households were included in the analysis. To answer the second question we formulated hypotheses based on the literature.

Hypotheses regarding victimisation

Hypothesis 1: Households with a low socio-economic status (SES) are more often victims of burglary than households with a high SES.

Hypothesis 2: Residents of rental housing are more often victims of burglary than home owners.

Hypothesis 3: Residents of flats and terraced houses are more often victims of burglary than residents of detached houses.

Hypothesis 4: Single parents, young families and students are more often victims of burglary.

Hypotheses regarding prevention measures

Hypothesis 5: Households in middle and higher socio-economic classes take more burglary prevention measures than households in low socio-economic classes.

Hypothesis 6: Residents of rental housing take fewer prevention measures than home owners.

Results and conclusion regarding the relation between prevention measures and burglary victimisation

An analysis of data from the Dutch Integrated Crime Victim Survey shows no relation between the presence and use of prevention measures and being a victim of a successful burglary – contrary to

expectations. The chance of becoming a victim of burglary in homes with one or more prevention measures was equal to that in homes without any prevention measures. The findings were the same for the use of prevention measures – rather than just the presence of prevention measures in the house. Although some SPFs had significant value, the significant values were between 1 and 1.5, suggesting that the prevention measures offer little additional protection compared to houses with no prevention measures. On the contrary, we found evidence of the opposite relation : the presence of more prevention measures is linked to more victimisation.

However, we deem the results of the SPF analysis invalid, because they are contrary to current scientific knowledge suggesting that there is indeed a negative correlation between the presence of prevention measures and victimisation. We think it is likely that one or more of the following statements are the reason why this correlation cannot be demonstrated in this study.

Possible explanation I: Differences in questions between the Integrated Crime Victim Survey and Tseloni et al (2014)

The English study explicitly asked if the burglary prevention measures were present in the home **at the time of the burglary**. In the Dutch Integrated Crime Victim Survey this question was not asked. This is a possible explanation as to why there was no effect found regarding the prevention measures based on the Dutch Integrated Crime Victim Survey, in contrast to the findings in England.

A study based on data from the police monitor (Willemse, Eijken & Dijk, 1994) shows that a whopping 40% of households install prevention measures after they have become a victim. This explanation is therefore very plausible.

Another supporting element for this statement is the research carried out by Vollaard and Van Ours (2011). They enriched data from the Crime Victim Survey 2005 - 2008 with information from the Housing Register on a package of built-in security measures for new homes named Security by Design (PKVW) and information on neighbourhood type. In the study information on burglary prevention measures came from a source other than the Crime Victim Survey, the data on Security by Design. These data provide information on which houses have a Security by Design (PKVW) label and thus have certified burglar-resistant windows and doors. Vollaard and Van Ours (2011) find the expected negative effect between the presence of prevention measures and burglary: the installation of good burglary-proof doors and windows reduces the risk of burglary by 26%. This study had a very thorough research design and used an amendment to the Building Act in 1999 which made burglary prevention measures mandatory for new buildings as a source of (quasi-) experimental variation.

Another difference between the IVM and the CSEW is the number and type of prevention measures studied. The questions in the CSEW are often more specific: for example, the CSEW includes a question about 'outdoor lighting with sensors,' while the IVM merely includes a question about 'outdoor lighting'. The most effective prevention measures (whether or not in combination with other prevention measures) looked at in the CSEW (window locks and exterior lighting with a sensor/timer) are not looked at in the same way as in the IVM. This may mean that the most effective prevention measures are missing from our study.

Possible explanation II: Differences between the situation in the Netherlands and that in England and Wales

First of all we ascertained that the coverage of burglary prevention measures that the IVM looked at is higher than the coverage of burglary prevention measures that the CSEW looked at. In our study only 2.4% of Dutch households have no prevention measures. In England this figure is 4.9%. So the coverage of standard prevention measures in the Netherlands between 2009 and 2011 is high. Most households have basic prevention measures such as extra locks.

One possible explanation for the fact that the burglary prevention measures looked at in this case appeared to have no effect is that the burglary prevention measures themselves do not have a protective effect but work only in combination with other features, for example characteristics of the neighbourhood and the street. From modus operandi research we know that burglars take into account the characteristics of the neighbourhood, its location in relation to roads, the appearance of the street and the location of the house in the street (e.g. on a corner) as well as details such as the facade, openings in walls and the ease with which doors and/or windows can be forced open (Burik et al., 1991; Korthals Altes, 1989; Handel et al., 2009). Situational and spatial factors also play a role but these cannot be studied using the data in the IVM because no information on these factors is available. The effect of the final step in a burglar's selection process (door/window, hinges and locks) might be small compared to all other considerations. However, it is strange that this seems to be less of a factor in England.

The chance of being a victim of a successful burglary in the Netherlands in the same period is lower than in England and Wales: 1.0% compared with 2.7%. In addition, Tseloni et al. (2014) use a data file in which this figure is 6.0%. We assume that this figure of 6.0% is higher than the percentage reported in the CSEW (2.7%) because of the cases selected by Tseloni et al. (2014). In our Dutch study the percentage of households that were victims of a successful burglary is relatively low. Victimization is a dichotomous variable (whether or not the household was a victim of burglary in the past year). Dichotomous variables have very wide reliability intervals, which increase as the victimisation percentage decreases. This means that the effect in the Netherlands has to be quite large in order to be perceived.

Possible explanation III: Validity of the IVM variables and data

The IVM data on which we based our study and analysis are not fully verified and have not been cleaned. For example, there were cases in which respondents indicated that they had been the victim of a burglary during the past year but in which they also stated that the number of times they had been a victim was zero. Also, for example, a larger percentage of lodgers than expected stated that they lived in a private property. The survey procedure was possibly to blame. The survey was in most cases carried out digitally or in writing, which meant that it was not possible to check whether or not the respondents fully understood the question and filled in the answer correctly. A similar problem arose with regard to variables relating to household composition. For example, some respondents stated that their household consisted of two people, including four people under the age of 15. The problems relating to household composition were solved by using the correct data taken from the Integrated Household Income file. It is not possible to check the other variables.

Possible explanation IV: Quality of response

The descriptive statistics show that respondents from lower income groups – who have fewer prevention measures in their houses – are underrepresented in the IVM. Therefore the results of respondents in the lower income groups are less reliable. This complicates the interpretation of the relation between income, burglary prevention measures and burglary victimisation.

Possible explanation V: The research design of this study

The literature shows that the relationship between burglary victimisation and burglary prevention measures is complex. Among other things, there is an interaction between the features of the house itself, the details of the neighbourhood and the details of the occupant (see, for example, Vandeviver, Van Daele, Christiaensen & Dormaels, 2012). Research into victimisation and the prevention of burglary has to be designed such that it excludes false cause/effect relationships by taking this complexity into account. A source of (quasi)-experimental variation is lacking in this study, which makes it impossible to control for the above-mentioned aspects that play a role in burglary. Information about these aspects is missing from the Crime Victim Survey.

Results and Conclusion regarding prevention gaps

As the SPF analysis did not find any protective effect resulting from the taking of burglary prevention measures, it was not possible to incorporate the SPF into an analysis model. We therefore opted to test the hypotheses relating to burglary victimisation and the presence of prevention measures using univariate analysis. Our reason for this approach is that we are studying the likelihood of certain groups becoming victims of burglary and the number of security measures taken by these groups, without linking prevention measures and victimisation. However, the limitation of this approach is that no statements can be made about whether certain populations are better protected through the use of prevention measures than others.

Hypotheses regarding victimisation

The following hypotheses relating to burglary victimisation for the period 2009-2011 could be confirmed on the basis of the IVM data:

- Residents of rental housing are more often victims of burglary than house-owners.
- Young respondents (aged 15 to 24 years) are more often victims than older respondents. It should be noted for these hypotheses that we could not properly operationalise 'young' households. We know the age of the respondent who participated in the IVM but we cannot comment on whether the household consists only of young adults. We have used the age of the respondent as an indicator.

The IVM provided no evidence for the following hypotheses regarding victimisation:

- Households with a low SES are more often victims of burglary than households with a high SES. As we noted earlier, the lowest SES groups are underrepresented in this study. To reach this target group a different type of survey (not written or digital questionnaires) is necessary.
- Single parents are more often victims of burglary than other households.
- Students are more often victims of burglary than non-students.

Our analysis of the IVM data suggested that residents of detached houses are more often victims of burglary than residents of terraced houses and flats. This relationship is the opposite of the

expected link according to Budd (1999). His analysis suggested that residents of terraced houses and flats are more often victims than residents of detached houses. A possible explanation is that the flats in the Budd study (1999) are mainly 'council flats' and, for example, are characterised by high unemployment (see Budd, 2001). Based on the data in the IVM we could not distinguish between social housing and private rental. Therefore we could not test the hypothesis concerning detached houses, terraced houses and flats properly on the basis of the data in the IVM.

Hypotheses with regard to the presence of prevention measures

The following hypotheses concerning the presence of burglary prevention measures in and around the house could not be confirmed using data from the IVM:

- Households with an average or high SES took more prevention measures to protect against burglary in the years 2009-2011 than households in low socio-economic classes.
- Residents of rental housing take fewer burglary prevention measures than home-owners.

We are unable to answer the main question of the study based on the applied methodology using SPFs: using the (historical) data of the Crime Victim Survey what can be said about the relationship between (i) the victim of a crime, (ii) the extent to which citizens, municipalities and the police take prevention measures to prevent this crime and (iii) geographic, demographic and socio-economic characteristics of citizens? The Crime Victim Survey is not set up for this purpose and the data therefore do not do justice to the complex relationships between burglary prevention and victimisation. Meaningful secondary analyses could be carried out if the research design (using a source of quasi-experimental variation) and the methodology were to take this into account.

Discussion

The purpose of this study was to carry out secondary analyses of the extensive data set from the Crime Victim Survey to examine whether these data could be used – more so than in the past – in the development of safety and crime-prevention policy. Descriptive annual reports on the national and local perception of safety and victimisation are drawn up on the basis of the Crime Victim Survey. These reports provide a good picture of the extent of victimisation, the perception of safety and the extent to which households use prevention measures. The assumption was that the data could also be used to examine the relationship between victimisation and prevention. We have attempted to do this in this study for burglary victimisation and we believe that the options are limited.

We should first of all point out the limitations of this study. As mentioned above, this study does not have a research design with quasi-experimental variation. There may be other designs or methods that can be used for meaningful (without false cause-effect relations), secondary analyses using data from the Crime Victim Survey, if necessary supplemented by micro-data supplied by Statistics Netherlands (CBS).

Despite this limitation the research findings of this study justify the question as to whether the data from the Crime Victim Survey are suitable for such analyses. To investigate the intervening effect of prevention measures on victimisation a distinction needs to be drawn between an attempted and a successful burglary. This distinction is no longer possible in the current Crime Victim Survey. This

means that it is impossible to research the relationship between prevention measures and actual victimisation using the most recent data from the Crime Victim Survey.

Furthermore, a study of an intervening effect needs to take into account when households took prevention measures: before or after they became a victim. This distinction was not possible on the basis of the IVM; nor does the current VM make this distinction. These are some examples of the impediments we encountered in this study, but these examples seem indicative of a larger and more fundamental issue.

The changes implemented over the last few decades in the various versions of the Crime Victim Survey were aimed primarily at rendering the victimisation and safety indicators more useful for local authorities and comparing the results at a local and national level over the different years. In addition, the length of the questionnaire was a major issue.

This study has shown that the questions, deletions and modifications made make it impossible to research possible relationships properly. Our research concentrated on burglary but this most likely applies to other offences as well. This is not a problem if the Crime Victim Survey is primarily used for descriptive statistics: how often an offence occurs, whether the willingness to install crime prevention measures increases or decreases. The Crime Victim Survey can (still) answer such simple questions adequately. But if the Crime Victim Survey is to be used to analyse the (intervening) relationships between, for example, prevention measures and victimisation (i.e. the question 'does it work (or not)?'), the questionnaire needs to be modified. For example, the distinction between an attempted and a successful burglary must be made clear, and questions about prevention measures (for example, whether or not they were present at the time of the incident) should be made more specific.

This, in broad terms, is a rather existential question: what is the purpose of the Crime Victim Survey? Would we like to use this instrument as a thermometer (increase/decrease of victimisation) or prevention measures)? And/or should this tool contribute to answering evaluative questions: what works and what does not? These objectives set different requirements for the Crime Victim Survey.

Regardless of this choice this study has shown that improvements definitely need to be made to the Crime Victim Survey questionnaire.

As well as modifying the questions, it might be an idea to include a higher-quality questionnaire for some of the respondents (e.g. 5,000) in order to collect more in-depth data. There are concerns not only about the questionnaire but also about the responses. It is, for instance, a fairly strong concern that low-SES groups are underrepresented. These groups are hard to reach for this type of survey research. Other methods should be employed in order to reach these groups.



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