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“There Goes the Fear”: Feelings of Safety at Home and in the Neighbourhood: the Role of Personal, Social and Service Factors

Abstract

Safety has been shown to be an important contributor to mental wellbeing and is often identified as a key element of sustainable communities. Drawing on the fear of crime literature this paper investigates the determinants of feelings of indoor and outdoor safety for people living in deprived areas, using both cross-sectional and longitudinal samples from household surveys in 15 communities in Glasgow. Across the different models social cohesion, satisfaction with services and perceived empowerment emerge as the most robust predictors of feeling very safe indoors and outside. Our findings suggest useful extensions to several theoretical models of the fear of crime: the vulnerability hypothesis should include social vulnerability more generally; environmental models should focus on local amenities and services as well as on disorder; and social-psychological models should consider not only informal social control but resident empowerment in relation to housing and neighbourhood issues.

Key Words: safety, fear of crime, home, neighbourhood, deprived areas, Glasgow

Introduction

In this study we are interested in what causes people to feel very safe both at home and in their neighbourhood, and we draw on the fear of crime literature to guide the development of our empirical analysis. The individual-level outcomes of feeling safe (or not) are related to, and important for, community psychology for a number of reasons. Fear and feeling unsafe are partly the product of the social environmental processes that community psychology studies (Perkins 2011), and which occur in particular ways in different communities, the latter constituting one of the major settings understood to influence individuals and groups (Bond 2001). Given that community psychology aims 'to facilitate empowerment' and 'promote positive social change' (Bond 2001), the alleged effects of fear of crime in causing individual withdrawal from community life and the eventual reduction in community –level capacity are of concern (Skogan 1986; Doran and Burgess 2012). If community psychology is to 'understand the multiple influences of the social environment on health and wellness' (SCRA 2010), then it must consider how people come to feel safe, particularly in disadvantaged areas. Fear of crime has been linked to both physiological effects, e.g. heart rate (Warr 2000) and release of adrenaline (Skogan and Maxfield 1981), and psychological effects, such as anger and helplessness (Ferraro and LaGrange 2000). Recent longitudinal research has shown an association between fear of crime and poorer physical and mental health in the long-term (Jackson and Stafford 2009; Stafford et al 2007).

Fear of Crime and Feelings of Safety

There is a difference of view between those who view fear of crime as a mental state that should be studied as a matter of intensity (Hough 2004; Warr 2000), and those who see it as a specific set of worries that should be investigated as a question of frequency (Farrall and Gadd 2004). Thus, investigations of the fear of crime have either used questions about feelings of safety (formless fear) or questions about worries about particular types of crime (concrete fear) (Gray et al 2012). We use generalised questions about safety, viewing it as a mental state rather than related to specific events. Thus, fear of crime is seen here as an underlying feeling of being unsafe, or a more generalized feeling of anxiety (Warr 2000). These broad feelings of being unsafe or anxious can capture a number of things: people's overall perceptions of the community they live in (Ferraro 1995), environmental cues of disorder in the local neighbourhood (Bannister 1993), concerns about local relations and group values (Jackson 2004), or anxieties about social change and changing societal moral values (Girling et al 2000; Sparks 1992; Jackson 2006; Farrall et al 2009).

Models of fear of crime

Explanations of fear of crime often start with the demographic model (Wurff et al 1989) by including various personal characteristics, such as age, gender, education, household composition, etc. in empirical work. These demographic characteristics can be seen as mediating psychological processes. The vulnerability hypothesis posits that fear of crime can be driven by physical (e.g. age, gender) and social (e.g. family situation, previous victimization) vulnerability and is a reflection of the individual's perception of their capacity to defend themselves against an attack or of their exposure to crime in the neighbourhoods in which they live (Franklin et al 2008, Haynes and Rader 2015). Recent research has shown for example that both singular, recent direct victimisation (the person him/herself being a victim), and repeat indirect victimisation (someone in the person's social network being a victim) are predictors of fear of crime (Russo and Roccato 2010). We should also consider the role played by stressful life events (e.g. health problems), which are more common among deprived population groups (Hatch and Dorenwend 2007). The vulnerability that life events may engender in people could generate additional worry over and above any anxiety about crime.

More recent work also includes neighbourhood or contextual characteristics. Disorder, such as physical (e.g. litter, empty houses) and social (e.g. public drinking) incivilities or property demolition can increase the fear of crime because they indicate a lack of informal social control and of concern about the area (Franklin et al 2008, Haynes and Rader 2015, Skogan 1986). Our study includes areas that have been subject to housing or regeneration interventions to varying degrees and by classifying areas based on the intervention type we are able to gauge the degree of disorder in the physical environment experienced by the residents.

In addition to the physical environment, social cohesion (e.g. social support, trust and connectivity in the area) forms a separate relevant characteristic of the neighbourhood (Haynes and Rader 2015, Franklin et al 2008). This is sometimes also called the social-psychological model of fear of crime (Wurff et al 1989, Jackson 2004). Social cohesion in the community can buffer against negative effects (such as demolition or disorder) in the neighbourhood and reduce fear of crime (Ross and Jang 2000). This buffering effect is illustrated by American evidence that neighbourhood social capital (operationalised as perceptions of helpfulness and trust) both directly reduces fear of crime and moderates the negative effects of assault on fear of crime (Kruger et al 2007). Other evidence, also from the USA, indicates that social cohesion has a greater effect on fear of crime than connectivity or neighbourliness, although both serve to reduce fear (Oh and Kim 2009).

Alternatively, distrust in people in the neighbourhood can increase the probability of attributing criminal intentions to others in the area and increase fear of crime (Wurff et al 1989). Given that we are studying residents of deprived areas where concerns about crime are often heightenedⁱ, we are particularly interested in the support available to residents.

In an extension of the social-psychological model, we also explore the effect of residents' sense of control and empowerment in relation to housing and neighbourhood service providers upon feelings of safety. Being consulted and having an impact on decisions may help people who have little influence over their own lives to feel more efficacious and respected as citizens (Barnes and Walker 1996), with consequences for feelings of safety. The focus on the local neighbourhood can be extended to consider whether residents' views of local services and amenities affect their fear of crime, including both services more directly related to issues of safety (such as the police) and other amenities that influence social interaction (such as parks and shops). We are also interested in considering the inter-relations between feelings of safety at home and in the neighbourhood, something rarely done in previous studies.

Research Aims

Our research is about feelings of safety, not the reality of being safe. Our aim was to address the following questions:

- What factors are associated with feelings of indoor (home) and outdoor (neighbourhood) safety?
- What is the relative importance in this regard of: personal characteristics and experiences; the perceived social environment around the home; and the local service environment?
- How are indoor and outdoor safety associated with one another?
- What factors are associated with becoming or remaining 'very safe' over time?

Methods

Context and Data

Our study of feelings of safety among residents of deprived areas takes place in Glasgow, a very deprived city, containing over a third of the most deprived neighbourhoods in Scotland (Scottish

Government 2012), and with an overall crime rate 80 percent higher than the national average (Understanding Glasgow 2014). Within Greater Glasgow there is a fifteen percentage point gap in neighbourhood safety between the most deprived areas and other parts of the city.

The data come from an ongoing study of the health and wellbeing impacts of housing investment and regeneration activity in fifteen deprived communities across the city, undergoing a range of renewal activities (Egan et al 2010). Surveys, comprising face-to-face interviews in people's homes, were conducted with a sample of adult householders in the study areas in 2006, 2008 and 2011. In the current study we use the 2008 and 2011 survey data-sets, where the following samples and response rates were obtained: 4,709, 47.5%; 4,063, 45.4%. Embedded within these was a sample of 1,179 longitudinal cases between the two surveys. The survey covered topics relating to housing, neighbourhoods, communities, physical and mental health, health behaviours, and household and personal characteristics.

Dependent Variables

We use two outcome measures as dependent variables. For indoor safety we use the survey question: "How much do you agree or disagree with the following statement: I feel safe in my home?" with a 5-part Likert response scale from 'Strongly agree' to 'Strongly disagree'. In all models the dependent variable is binary and coded one for those who answer 'Strongly agree' and zero otherwise. For outdoor safety we use the survey question: "How safe would you feel walking alone in this neighbourhood after dark?" with a 5-part Likert response scale from 'Very safe' to 'Very unsafe'; this question also allowed a recording of the unprompted answer: "I never walk alone after dark". Again, in all models the dependent variable is coded one if a respondent answered 'Very safe' and zero for all the other answers. This dichotomisation of the dependent variables was informed by three considerations: the desire to focus on those who felt that their feelings of safety were maximised; the need to ensure that the reference groups used in the analysis had sufficient cases; and the fact that exploratory analysis found that the covariates (see below) had stronger effects upon feeling 'very safe' than they had if moderate or fair feelings of safety were also included in the comparison group, as has been found previously in studies of self-reported health (Finns et al 2008; Bourne 2009). However, we have performed all the analyses set out below on the alternative, broader definition of the dependent variables and the results are available in an Appendix. When using the broader dependent variable, fewer of the independent variables bore statistically significant associations with feelings of safety, particularly those related to education, citizenship

and life events. This reinforces our interest in focusing of strong feelings of safety as the outcome of interest.

Explanatory Variables

Five groups of explanatory variables are included in our analyses. In the case of each grouping, we considered a wider range of variables for potential inclusion and then dropped variables which performed in similar ways in initial analyses, in order to construct parsimonious final models.

First, we include socio-demographic and personal characteristics of the respondents. In initial analysis, gender was associated with outdoor safety but not indoor safety, so we include it in our modelling of the former. We use household type in all models: adult households (reference group); older persons; single parent family; two-parent family. Educational attainment is included, divided into: no qualifications (reference group), which for the main part indicates that the respondent did not pass any national examinations whilst at school; school level qualifications; and post-school qualifications (including HNCs, degrees etc.). As some of our study areas contain high numbers of migrants, we include citizenship as follows: British-born UK citizen (reference group); British citizen born abroad; non-British citizen. Finally, the survey asked respondents if they had experienced any of eight stressful life events over the past three years (i.e. the survey interval). ‘Stressful life events’ are known to impact upon psychological health (Dohrenwend 2006) and to occur more often among people living in deprived areas (Miller et.al. 2009). Of the eight life eventsⁱⁱ, three were found to be associated with feelings of safety in exploratory bivariate analysis, and so have been included here as binary variables: getting married or setting up home with a partner; being a victim of a crime; and experiencing a serious health event (illness or disability) affecting the respondent or another household member. Interestingly, victimisation was associated with indoor but not outdoor safety and is so included in the models for the former, not the latter.

Next, we include a locational variable to indicate which of five types of study area the respondent lives in. These areas are all subject to different kinds of housing or regeneration intervention, each of which may impact upon safety in the area in different ways (GoWell 2010). Housing Improvement Areas (HIAs) (reference group) are communities considered by both the main social landlord and the city council to be popular and functioning successfully. Transformation Regeneration Areas (TRAs) are areas undergoing extensive demolition and redevelopment over a long period of time. Local Regeneration Areas (LRAs) are subject to regeneration on a much smaller scale. Wider Surrounding

Areas (WSAs) are areas in receipt of both housing improvements and significant numbers of people relocated moved from the high-rise flats being demolished in the TRAs, the latter a potential source of negative social impacts upon the receiving communities, such as increasing crime and anti-social behaviour (Kleinhans and Varady 2011). Peripheral Estates (PEs) have been adapted to become more mixed tenure, which may enhance safety.

Thirdly, we include variables measuring different aspects of social cohesion: social support; social connectivity; and, trust and reliance on others. Measures of *social support* have been found to be related to feelings of psychological safety in other settings including education and the workplace (Schepers et.al. 2008; Rhoades and Eisenberger 2002). Respondents were asked how many people apart from household members, they could ask to give them advice and support in a crisis, and to lend them money for a few days. We coded the responses to these questions as follows: none (reference); one or two; more than two; would not ask, or don't know. We included emotional support in the analysis of indoor safety, but as this lost significance in the outdoor models, we included financial support here.

For *social connectivity* respondents were asked how often they stopped and talked to people in their neighbourhood: we look at the effect of doing this 'a great deal' versus any of the other responses. For *trust and reliance* we include a measure of informal social control, since collective efficacy has a big effect in reducing fear of crime (e.g. Gibson et.al. 2002). Respondents were asked to what extent they agreed or disagreed with the statement: "It is likely that someone would intervene if a group of youths were harassing someone in the local area". We look at the effect of the 'Strongly agree' response versus the others.

The fourth group of variables relate to empowerment. For indoor safety, we measure empowerment through tenant-property manager relations. Respondents expressed their degree of satisfaction with how well they are kept informed about housing-related things that might affect them, contrasting those who were very satisfied with everyone else. For neighbourhood safety we use a different measure of local empowerment, namely how much respondents agreed with the statement: "On your own or with others you can influence decisions affecting your local area". The cross-sectional models use 'Strongly disagree' as the reference category, whilst the longitudinal models examine the effect of 'strongly agreeing' versus all other responses.

The fifth group of variables relate to local services and amenities. We include respondents' ratings of the quality of four local services: parks and open spaces; policing; street lighting; and shops (not associated with neighbourhood safety). In each case we investigate the effect of rating the service as

‘very good’ versus any other response. In relation to indoor safety, we also include the respondents’ reporting of having received housing improvement works in the past three years: no (reference); yes.

Finally, we look at the relationship between indoor and outdoor safety by including the relevant variable as an independent variable in the modelling of the other outcome. In each case, we examine the effect of the most positive response to the safety item compared to any of the other responses.

Analyses

For both outcome measures – indoor and outdoor safety – we commence by conducting logistic regression on the 2011 cross-sectional sample. This helps to identify variables that are associated with higher feelings of safety. The modelling is done in five stages; at each step we consider whether the explanatory power of the model is improved by adding new groups of variables, and look to see if the effects of individual variables are substantially altered by the additions.

The second set of analyses uses the 2008-11 longitudinal sample to construct Markov transition models of indoor and outdoor safety over time. Markov transition models are often used in health research to model the transition of patients between health states over time and the progression of disease, particularly where initial and end states are observable, but not all the sequence of events in between (Welton and Ades 2005). In accord with the general Markov approach, we include the corresponding safety variable for 2008 as an independent variable for the prediction of the 2011 outcome and interact it with all the other covariates. The other independent variables are measured at 2011, as in the cross-sectional models. The Markov models predict two transitions for both indoor and outdoor safety: transitioning to feeling very safe; and remaining feeling very safe. For the Markov models we have only presented the final model including all types of variables. Where an independent variable is associated with the dependent variable in this second set of analyses over time, there is a stronger reason for believing that the two are causally related.

Ethical Approval

The study received ethical approval from the NHS Scotland B MREC Committee (no.05/MRE10/89).

Results

The cross-sectional and longitudinal samples are similar in most respects, although the longitudinal sample has more people in older person households and living in Housing Improvement Areas (Table 1). There are also fewer non-British citizens in the longitudinal sample. The deprived nature of the study populations is indicated by the fact that three-out-of-five people have no educational qualifications, i.e. they did not pass any examinations whilst at school nor since. Although this is not the same as illiteracy, the rate of insufficient adult literacies in the most deprived communities in Scotland has also been estimated as high, at just over 50 percent (St Clair et al 2010).

Table 2 shows that around a third (35%) of the respondents in both the cross-sectional and longitudinal samples said they felt very safe at home, and 14-15% of people in both samples said they felt very safe walking in their neighbourhood at night-time. The pattern of answers to all the other questions are also very similar in the two samples, apart from the fact that more people in the longitudinal sample than in the cross-sectional sample had received home improvement works.

Indoor Safety

Table 3 presents the results of the logistic regression modelling on the larger, cross-sectional sample from 2011. The final model correctly predicted two-in-five cases of “strongly agree with feeling safe at home” (44.3%). The largest contribution to the model’s explanatory power (increasing the correct prediction by 19%) comes from the addition of variables measuring social cohesion, highlighting the importance of social relations to feelings of indoor safety. The addition of the single housing empowerment variable also adds substantially to the model’s explanatory power, increasing the correct prediction of very safe cases by 13%.

In the final model, we see that people in older person households are more likely than adult households to feel very safe indoors (OR 1.32, 95% CI 1.08-1.60), whilst parents of dependent children are less likely to feel safe indoors, both single parents (OR 0.73, 95% CI 0.58-0.92) and two-parent families (OR 0.59, 95% CI 0.46-0.77). Education level was not significantly associated with feelings of safety indoors. Non-British citizens were less likely to feel safe indoors than British-born citizens (OR 0.69, 95% CI 0.52-0.92). Getting married or having a new partner doubled the odds of feeling very safe indoors, while being a victim of a crime (OR 0.61, 95% CI 0.43-0.85), or experiencing a serious health event (OR 0.76, 95% CI 0.63-0.92) both lowered the odds of feeling very safe

indoors. Living in a Peripheral Estate lowered the odds of feeling very safe indoors (OR 0.74, 95% CI 0.59-0.93) compared to the HIAs.

The social cohesion variables all had similar effects on safety indoors. Having more than two people available to offer advice and emotional support (OR 1.56, 95% CI 1.17-2.09), talking to people in the neighbourhood a great deal (OR 1.71, 95% CI 1.44-2.03), and strongly agreeing that informal social control is operative in the area (OR 1.50, 95% CI 1.12-2.00) all increased the odds of feeling very safe indoors by at least 50%.

Empowerment had the biggest single effect in the final model. Those people who felt very satisfied with how their housing service provider kept them informed about things were three times as likely as anyone else to feel very safe indoors (OR 2.92, 95% CI 2.44-3.49).

Of the local services and amenities, being very satisfied with parks (OR 1.72, 95% CI 1.39-2.13) and street lighting (OR 1.63, 95% CI 1.36-1.95) had the strongest associations with feeling very safe indoors, followed by satisfaction with shops (OR 1.48, 95% CI 1.21-1.82). Having received home improvements had a modestly positive effect on feeling very safe indoors. Finally, we found that feeling very safe outdoors, i.e. walking alone at night-time, increased the odds of feeling very safe indoors by around 70% (OR 1.68, 95% CI 1.36-2.06).

Table 4 shows the results of the Markov transition model for feelings of safety indoors over time, which correctly predicted half the cases of “strongly agree with feeling safe at home” (52.5%). The results are similar to those from the model of feelings of indoor safety in 2011, with a few differences. Some variables that help predict being very safe in 2011 do not predict transitioning to feeling very safe between 2008 and 2011. These include older person households and the life events of marriage and victimisation, which we think is because they do not occur in sufficient numbers in the smaller sample. Living on a peripheral estate, having two or more people for emotional support, and having a strong sense of informal social control in the area also lost significance in the longitudinal model.

A few variables had much stronger effects on transitioning to feeling very safe indoors than they had on feeling very safe in 2011. These included talking to neighbours a great deal; feeling very satisfied with being kept informed by the housing service provider; being very satisfied with parks; receiving home improvements in the interval; and feeling very safe outside after dark, which notably trebled the odds of transitioning to feeling very safe indoors (OR 3.55, 95% CI 2.07-6.09).

Only five variables were significantly associated with remaining feeling very safe indoors over time, each of which at least doubled the odds of remaining feeling very safe: having two or more people for emotional support; talking to neighbours a great deal; feeling very satisfied with how the housing service provider kept you informed of things; and being very satisfied with parks and the police. It is worth noting that being very satisfied with local policing had the strongest effect in this model, trebling the odds of remaining feeling very safe indoors over time (OR 3.41, 95% CI 1.43-8.11), despite not featuring as a significant factor in the other models for indoor safety.

Across the two types of models, social cohesion, satisfaction with services, and particularly empowerment, emerge as the most robust predictors of feeling safe at home. While many socio-demographic variables and life events are associated with feeling safe in the cross-sectional sample, they are often weaker predictors of transitioning to feeling very safe between survey waves and cannot explain why respondents remain feeling safe across waves. In contrast, talking to neighbours in the area and empowerment (being satisfied with how one is kept informed) can help explain why respondents start to feel very safe and continue to feel very safe at home across different time points.

Outdoor Safety

Table 5 shows the results of the logistic regression modelling for outdoor safety in 2011. The final model correctly predicted fewer of the cases of “feeling very safe outside” (16.6%) than for indoor safety. Several of the socio-demographic characteristics and life events lowered the odds of feeling very safe outdoors including: being female (OR 0.32, 95% CI 0.26-0.40); older person households (OR 0.45, 95% CI 0.35-0.60) – the opposite of the effect on indoor safety; citizens born abroad (OR 0.55, 95% CI 0.32-0.96); and experiencing a serious health event (OR 0.69, 95% CI 0.54-0.88). Being in family households did not have a negative effect on feelings of outdoor safety as it had on feelings of indoor safety. Education, which had no effect on feelings of indoor safety, had a positive effect on feelings of outdoor safety: school qualifications and post-school qualifications both increased the odds of feeling very safe outdoors.

The effects of area types were very different for feelings of outdoor safety. Living on a Peripheral Estate had no effect on feelings of outdoor safety, unlike for feelings of indoor safety. Living in either type of regeneration area (LRA and TRA) halved the odds of feeling very safe outdoors compared to the HIAs. Once again, the addition of the variables capturing social cohesion made the largest

contribution to increasing the explanatory power of the model, the number of correctly predicted cases of “feeling very safe” rising by 11%. Talking to neighbours and having a strong expectation of informal social control approximately doubled the odds of feeling very safe outdoors, which is similar to the findings for feelings of indoor safety. However, social support (having people for financial support) was not significantly associated with feelings of outdoor safety, unlike for feelings of indoor safety. Adding empowerment at the fourth stage also increased feeling very safe outdoors – strongly agreeing that you can influence local decisions almost doubles the odds (OR 1.84, 95% CI 1.08-3.14).

In the fifth and final stage we again added satisfaction with services. Being very satisfied with parks and street lighting increased the odds of feeling very safe outdoors, similar to their effects on feelings of indoor safety. Whilst being very satisfied with local policing services had no effect on feelings of indoor safety in 2011, it had a positive effect on feeling very safe outdoors (OR 1.70, 95% CI 1.30-2.23). Finally, feeling very safe indoors was positively associated with feeling very safe outdoors (OR 1.88, 95% CI 1.53-2.31).

Table 6 shows the results of the Markov transition model for feeling very safe outdoors over time. The model correctly predicted 29.6% cases of “feeling very safe”. Five variables that significantly predicted the odds of feeling very safe outdoors in 2011 similarly predicted the odds of transitioning to feeling very safe over time. Three of these lowered the odds – being female; older person households; living in Local Regeneration Areas – and two raised the odds: post-school qualifications; and feeling very safe at home. Three other variables which increased the odds of feeling very safe in the 2011 cross-sectional model had even stronger effects on transitioning to feeling very safe over time. Talking to neighbours a great deal, having a strong expectation of informal social control (strongly agree someone intervenes), and being very satisfied with policing services, all nearly trebled the odds of transitioning to feeling very safe outside between the two waves. A number of other variables which were predictors of feeling very safe outdoors in 2011 had similar sized effects on transitioning to feeling very safe, but were not statistically significant in the longitudinal model.

There were only three significant predictors of remaining feeling very safe outdoors over time. Those living in older person households were far less likely to remain feeling very safe outdoors (OR 0.15, 95% I 0.03-0.72). Those who were very satisfied with lighting and felt very safe at home were nearly three times more likely to remain feeling very safe outdoors over time as other people. The result showing that females were less likely to remain feeling very safe was close to statistical significance. We should keep in mind that few people felt very safe outside (11% at wave 2 and 14%

at wave 3) and even fewer people felt very safe outside at both waves. Because of the small number who felt very safe at both waves it is difficult to predict remaining feeling very safe.

Overall the two types of models again underline the importance of social cohesion and local services on feeling very safe outside. Empowerment is also an important predictor of feelings of safety in the cross-sectional model, but the effect falls below significance in the longitudinal model. Unlike in the models predicting feelings of safety at home, social characteristics such as gender and household type (older person households) have a more robust effect on feeling very safe outside, having a significant impact also on becoming and remaining feeling very safe outside.

Discussion

Reflections on the Fear of Crime

According to the 'vulnerability hypothesis' some people are more fearful either because they have lifestyles that expose them to greater risks of crime, or they have characteristics or are in situations where they feel less able to protect or defend themselves (Haynes and Rader 2015; Franklin et al 2008). This is supported by our results, showing that women and older people are less likely to feel safe outside after dark. In addition, the strong association between marriage and feelings of indoor safety corroborate other findings that married people feel both less fearful (Haynie 1998) and less vulnerable, possibly because they share their approach to protection with another person (Rader 2008). However, a broader sense of social vulnerability, or insecurity, among those living in deprived circumstances may partly explain our findings that those with dependent children, those with no available social support, and those who do not have citizenship are less likely to feel safe at home, whilst those who have experienced a serious health event are less likely to feel safe both indoors and outdoors.

Social vulnerability to fear of crime is similar to the concept of a 'precariat' within society - a group without economic security who experience a weakening of civil, cultural and social rights as a consequence (Standing 2011). This is consistent with the view that those with fewer resources feel less able to protect themselves or deal with the consequences of crime and are thus more sensitive to risk and more affected by 'imagined victimisation' (Warr 1987; Farrall et al 2009). However, the vulnerability we are concerned with here may stem more from a lack of social opportunities than from the weakening of social rights identified for the precariat.

The victimisation thesis posits that fear of crime is caused by either actual victimisation, or by estimated victimisation based on the known level of criminality in an area, including what is said locally about crime (Bennett 1990). We found that being a victim of a crime was associated with feelings of indoor safety, though not as strongly as some other factors, and not in the longitudinal models. Victimization was not associated with feelings of outdoor safety. Thus, we would concur with those who argue that the direct experience of victimisation is weakly correlated with the fear of crime (e.g. Hough 1995), and forms only a small part of the explanation of why people do not feel safe (Hale 1996; Farrall et al 2009).

In accord with the hypothesis that fear of crime is a metaphor reflecting other concerns about the local area (Taylor et al 1996; Skogan 1986), we found that residents of the two types of area undergoing demolition and redevelopment – the Transformational and Local Regeneration Areas (TRAs and LRAs) – exhibited lower feelings of outdoor safety. This may reflect uncertainty about the areas as much if not more than decline, given the delays and shifting nature of the regeneration in these areas (Lawson and Kearns 2014).

Opposing the impacts of disorder (demolition and redevelopment) are the buffering effects of community cohesion (Ross and Jang 2000), wherein low levels of anonymity and less distrust ‘inhibit the fear of crime’ (Farrall et al 2009); a positive assessment of informal social control lowers perceptions of risk (Jackson 2004); and social interaction with neighbours may reduce vulnerability. We found social cohesion and trust to be strongly associated with feeling safe. These factors had some of the most robust effects on feeling very safe both at home and outside across the different models.

Some of our strongest findings point towards the importance of control more broadly in the residential environment, in accord with an extended social-psychological model of fear of crime. We found that empowerment in respect of housing services is much more strongly associated with feeling safe indoors than the provision of improvements to the home which would directly impact on physical safety, and, further, that empowerment in respect of wider local decisions is associated with feelings of outdoor safety more so than many other factors we considered. These findings relate more generally to research on public services that have shown that being well informed and being able to influence decisions, along with being treated with dignity and respect, are as important for public satisfaction as the delivery of outcomes (Ipsos Mori 2010). Such qualities in the relationship with service providers can, in the case of residents of deprived communities, bolster

feelings of inclusion, capability and protection, and thus make people less susceptible to a fear of crime that reflects feelings of lack of control over circumstances.

With regard to the local environment, the main theoretical focus has been on how signs of disorder either increase perceptions of risk, raise concerns about the values or intentions of others, or indicate a lack of control or concern about the area from the authorities (Wilson and Kelling 1982; Skogan 1990; Sampson 2004), thus engendering a fear of crime (Warr 1990). Our findings suggest that the role of the local environment can be extended to include the quality of local services and amenities, which we found to be associated with feelings of both indoor and outdoor safety. This was true not only for those services directly related to safety, such as policing and lighting, but also for the quality of other amenities such as shops and parks, which may be important not only because they indicate something about care or concern for the area (as with disorder), but also because they affect the quality of local social interaction. It is important therefore to remember that the neighbourhood as a context for fear of crime must be considered as a physical, social *and* as a service environment (Kearns and Parkinson 2001). Finally, our findings also show, that feeling safe outdoors is related to feeling safe indoors, and vice versa, reflecting the integrated nature of the home and neighbourhood as a residential psychosocial environment (Kearns et al 2012).

Policy Implications

Our findings have implications for several areas of policy and practice: housing, regeneration and communities, including community policing. In relation to housing services we have shown that the delivery of housing improvements to properties has a positive impact upon safety at home, particularly in helping people feel 'very safe'. This is important in making the case for public capital expenditure on housing, where housing is one of the areas of greatest expenditure cuts, both currently and historically (Crawford et al 2011). However, the more important finding may be that people feel safer at home when their housing service provider keeps them informed of things that might affect them, and takes their views on board in making decisions. Housing as a *service*, therefore, could be more important for safety than housing as a *product*.

For regeneration, our findings support the call for more expenditure on social regeneration programmes (LGRC 2014). The fact that those with low education, poor health, dependent children and migrant status all felt less safe than other residents indicates a need for personal support for some residents so they can feel more confident and secure. A higher feeling of safety among those

who interact and trust their neighbours more also suggests a need for collective social programmes in disadvantaged areas, where levels of trust can be low, moreover disaffiliation from problematic neighbourhoods is not just a middle-class phenomenon (Pinkster 2014). However, the ability of providers to deliver both individual and collective elements of social, 'holistic regeneration' has been questioned within existing regeneration structures (Beck et al 2010).

Our finding of lower feelings of safety in Transformational Regeneration Areas might reflect both the effects of area decline (manifest in empty and demolished buildings and loss of population), and a degree of uncertainty and lack of influence over decisions affecting the local area. Community involvement has been a stated component of regeneration policy in the UK since the late 1990s (Burton et al 2004) but studies have shown that community engagement does not necessarily engender greater feelings of empowerment (Lawson and Kearns 2010). Our findings support the call for community engagement within regeneration to be consistent, democratic and accountable, with feedback to residents on subsequent decision-making and implementation (*ibid.*), not only as part of 'good governance' but also in order to support residents' sense of security.

The results also support a role for communities beyond regeneration programmes. It is notable that factors such as interacting with and trusting one's neighbours had a slightly greater effect upon feelings of safety than the perceived quality of policing services. Reassurance, therefore, is not simply something to be provided to communities through policing strategies (Innes 2004; Hamilton-Smith et al 2014). Whilst some affluent consumers can secure their own reassurance and safety through 'withdraw[al] into increasingly insulated enclaves' (Atkinson 2006, p.819), those in more deprived communities may have to be enabled to create their own reassurances. Approaches to recruit communities into the task of crime prevention have been criticised for their 'responsibilisation' of poor communities (Flint 2006), but an alternative approach to community safety, one more in line with our findings, was described half a century ago by Jane Jacobs: 'the public peace – the sidewalk and street peace – of cities is not kept primarily by the police it is kept primarily by an intricate, almost unconscious, network of voluntary controls and standards among the people themselves' (Jacobs 1961, p.113). Jacobs' argument that people are 'not passive beneficiaries of safety' but 'active participants' in the task (p.111) suggests an important role for community development support for deprived communities, rather than more formalised community governance of crime and antisocial behaviour.

The Scottish Government's current 'Building Safer Communities' (BSC) programme aims to enable people to both 'live safe' and 'feel safe', including increasing the number of people engaging with

their community (BSC 2014). However, there is a very strong emphasis on reducing the number of victims of crime, and supplying messages to the public about security and prevention. Yet our findings suggest that the role of community engagement should not just be one of coming together to prevent crime, but of mutual interaction and support.

Community involvement in the governance of local public services more generally could also contribute to people's sense of self-efficacy and control. Community empowerment, as well as building more resilient communities better able to cope with changes and cut-backs to public services (RSE 2014) could also contribute to resilience through enhancing control over the local environment, which reduces fear (Tulloch 2000), and by stimulating more local social interaction which would enhance feelings of neighbourhood safety.

Strengths and Limitations

Our study uses both a cross-sectional and a longitudinal sample from the same study population to investigate factors associated with feelings of safety. The response rates of 45% and 47% are respectable for surveys in disadvantaged communities, although the achieved samples over-represent adults in their 60s and 70s, women, and those living in social rented housing, whilst under-represent adults in their 20s and 30s and those living in owner occupation. Using the cross-sectional and longitudinal samples allows us to corroborate the importance, or not, of certain factors through different types of analysis. The longitudinal sample also helps us to get closer to the causal relationships by allowing us to predict what variables affect *becoming* very safe and *remaining* very safe. On the other hand, the longitudinal sample (although over a thousand cases) is a little small for the number of variables included in the analysis, and hence some variables had similar effects in the two samples but were not statistically significant in the Markov models. Previous sensitivity analyses have also confirmed that the longitudinal sample and the repeat cross-sectional samples in our study yield similar findings with regard to health outcomes (Egan et al 2016).

The questions we use about feelings of safety, although widely used in surveys and studies of fear of crime, have been criticised for ambiguity. Tulloch (2000, p. 456) points out for feeling safe walking at night that 'the question cannot be seen as a simple indicator of fear of crime' due to 'the link between assessment of safety and behaviour'. Gray et al. (2008, p.364) argue that such a question does not relate to *experience*, and provides only 'vague global summaries of intensity of worry or feelings of unsafety...[and] these vague summaries may diverge from the reality of everyday

emotions that affect people's lives'. Consequently, questions of safety are often seen to overestimate respondents' fear of crime. Unfortunately, as our data did not include more concrete questions that tap into specific crimes or distinguish between cognitive judgements and emotional fear of crime. We agree that we cannot accurately capture the levels of fear of crime. However, our purpose here is not to capture the absolute levels of fear, but to make comparisons between people and across neighbourhoods – to understand what associates with fear by studying why some people feel, become and remain very safe at home and outside.

Conclusion

By looking at safety through the lens of fear of crime, we have been able to show that providing greater reassurance to the residents of deprived areas in order that they feel safer may be less about preventing victimisation through policing services than about supporting people who are socially vulnerable in other ways and for other reasons, and enhancing the quality of relationships between communities and service providers so that those with few human, social and financial capital resources can feel more confident and empowered in respect of their residential circumstances. We have also shown an important two-way interaction between indoor and outdoor safety that indicates the need to address both simultaneously.

Three main messages for community psychology more broadly from this study are as follows. First, that the vulnerability of some members of society, perhaps particularly among those living in disadvantaged communities, can be seen as having a social and health basis, as well as being seen as a product of physical risks or financial insecurity. Second, that regeneration areas should be considered as another 'setting' within which community psychology might be studied, since such places are often subject to long-term uncertainty and periods of action and inaction (sometimes stretching over two decades or more), which can impact upon people's sense of community. Thus, area decline is not the only trajectory of relevance in such places. Lastly, not only the social environment but also the institutional environment is an important influence upon community psychology. In this, organisations are inputs to, as well as outputs from, community psychology, and the processes and quality of interactions between service planners and providers and residents are crucial not just for feelings of safety, as shown here, but in all likelihood for other psychological and psychosocial outcomes too.

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Table 1. Distribution of socio-demographic and area variables in the two samples

Variable	Cross-sectional	Longitudinal
Female	59.0	61.6
Household type		
Adult	45.2	39.5
Single-parent family	16.2	14.5
Two-parent family	14.7	11.4
Older person	23.9	34.5
Education		
None	58.5	60.2
School-level	21.8	21.3
Post school	19.7	18.5
Citizenship		
British born UK	79.8	87.3
British, born outside UK	6.9	5.5
non-British	13.3	7.2
Area		
TRAs	19.1	13.8
LRAs	16.7	16.3
WSAs	21.3	17.9
HIAs	21.0	30.2
PEs	21.9	21.8

Table 2. Distribution of the dependent variables and explanatory variables in the two samples

Variable	Cross-sectional	Longitudinal
Strongly agree		
"Feel safe in my home" (Wave 3)	35.1	35.7
"Feel safe in my home" (Wave 2)		29.3
Very safe		
Walking alone after dark (Wave 3)	15.7	14.2
Walking alone after dark (Wave 2)		11.2
Life events in past 3 years		
Victim of crime	6.9	6.8
Marriage or partnership	3.3	1.4
Serious health problem	23.0	25.8
Stop to talk to neighbours a great deal	27.4	30.1
Strongly agree someone intervenes	7.1	8.2
People you could ask to give advice and support in crisis (Emotional support)		
Would not ask/don't know	9.4	
None	10.1	59.3
One or two	39.4	
More than two	41.1	40.7
People you could ask to lend you money (Financial support)		
Would not ask/don't know	30.3	49.5
None	15.5	
One or two	28.8	50.5
More than two	25.5	
Can influence decisions affecting area		
Strongly disagree	8.1	
Disagree	22.6	94.6
Neither	28.8	
Agree	35.3	
Strongly agree	5.2	5.4
Very satisfied with how kept informed	22.3	24.7
Very good quality of services in area		
Parks	16.5	16.4
Shops	18.2	17.4
Policing	13.7	12.9
Lighting	25.0	24.2
Had home improvement	37.1	47.7

Note: Some categories are combined for models that use longitudinal data (shown by horizontal lines)

Table 3. Feeling Very Safe at home: logistic regression on cross-sectional sample.

DV: Strongly agree with "safe at home"	Socio-demographic				Area of residence				Social relations				Empowerment				Services and safety outside			
	OR	p-value	95% CI		OR	p-value	95% CI		OR	p-value	95% CI		OR	p-value	95% CI		OR	p-value	95% CI	
(Intercept)	0.65	0.000	0.57	0.75	0.84	0.063	0.69	1.01	0.45	0.000	0.33	0.61	0.32	0.000	0.23	0.44	0.23	0.000	0.16	0.32
Ref: Adult household																				
Older person	1.38	0.000	1.15	1.64	1.33	0.002	1.11	1.58	1.28	0.009	1.06	1.53	1.23	0.034	1.02	1.48	1.32	0.006	1.08	1.60
Single-parent family	0.73	0.003	0.59	0.90	0.74	0.005	0.60	0.91	0.72	0.003	0.58	0.90	0.73	0.005	0.58	0.91	0.73	0.008	0.58	0.92
Two-parent family	0.62	0.000	0.49	0.78	0.61	0.000	0.48	0.77	0.58	0.000	0.45	0.73	0.60	0.000	0.47	0.77	0.59	0.000	0.46	0.77
Ref: No education																				
School	0.93	0.458	0.78	1.12	0.94	0.508	0.78	1.13	0.94	0.503	0.78	1.13	0.90	0.294	0.74	1.09	0.88	0.190	0.72	1.07
Post-school	1.17	0.098	0.97	1.41	1.18	0.089	0.98	1.42	1.13	0.208	0.93	1.37	1.14	0.207	0.93	1.39	1.11	0.324	0.90	1.37
Ref: British born British																				
Outside UK British	0.63	0.004	0.46	0.86	0.70	0.031	0.50	0.97	0.85	0.359	0.61	1.20	0.95	0.785	0.67	1.35	0.95	0.780	0.66	1.36
non-British	0.59	0.000	0.47	0.75	0.67	0.002	0.52	0.87	0.81	0.129	0.62	1.06	0.78	0.074	0.59	1.02	0.69	0.011	0.52	0.92
Recent life events:																				
Marriage	1.76	0.005	1.19	2.61	1.78	0.004	1.20	2.65	1.84	0.003	1.23	2.75	2.14	0.000	1.42	3.23	2.04	0.001	1.33	3.11
Victim of crime	0.61	0.002	0.45	0.83	0.62	0.002	0.45	0.84	0.60	0.002	0.44	0.83	0.58	0.001	0.42	0.81	0.61	0.004	0.43	0.85
Health issue	0.76	0.001	0.64	0.90	0.76	0.002	0.64	0.90	0.78	0.005	0.65	0.93	0.74	0.001	0.62	0.89	0.76	0.004	0.63	0.92
Ref: HIA																				
LRAs					0.70	0.003	0.55	0.88	0.77	0.036	0.61	0.98	0.84	0.164	0.65	1.08	0.83	0.160	0.64	1.08
PEs					0.76	0.007	0.62	0.93	0.68	0.000	0.55	0.84	0.67	0.000	0.53	0.83	0.74	0.010	0.59	0.93
TRAs					0.63	0.000	0.50	0.81	0.69	0.004	0.54	0.89	0.79	0.071	0.61	1.02	0.83	0.166	0.63	1.08
WSAs					0.75	0.006	0.61	0.92	0.77	0.015	0.62	0.95	0.89	0.291	0.71	1.11	0.92	0.461	0.73	1.15
Ref: No-one for emotional support																				
One or two									1.23	0.141	0.93	1.62	1.21	0.185	0.91	1.61	1.12	0.436	0.84	1.50
More than two									1.70	0.000	1.30	2.24	1.69	0.000	1.27	2.24	1.56	0.003	1.17	2.09
Would not ask/Don't know									1.23	0.245	0.87	1.76	1.24	0.251	0.86	1.79	1.21	0.330	0.83	1.76
Talk to neighbors a great deal									1.99	0.000	1.70	2.34	1.92	0.000	1.62	2.26	1.71	0.000	1.44	2.03
Strongly agree someone intervenes									2.10	0.000	1.61	2.75	1.84	0.000	1.39	2.43	1.50	0.006	1.12	2.00
Very satisfied with kept informed													3.74	0.000	3.16	4.44	2.92	0.000	2.44	3.49
Very satisfied with:																				
Parks																	1.72	0.000	1.39	2.13
Shops																	1.48	0.000	1.21	1.82
Police																	1.17	0.185	0.93	1.48
Lighting																	1.63	0.000	1.36	1.95
Had home improvement																	1.20	0.029	1.02	1.40
Very safe after dark																	1.68	0.000	1.36	2.06
N	3646				3646				3646				3646				3646			
% Correctly predicted (y=1)	2.3%				8.9%				27.5%				40.6%				44.3%			
% Correctly predicted (y=0)	98.6%				94.8%				89.2%				87.7%				87.5%			
% Correctly predicted (all)	64.4%				64.5%				67.3%				71%				72.2%			
Log Likelihood	-2303				-2295	***			-2211	***			-2093	***			-2010	***		

Table 4. Feeling Very Safe at home: Markov transition model on longitudinal sample

DV: Strongly agree with "safe at home"	Transition to feeling very safe $P(y_t=1 y_{t-1}=0)$				Remaining feeling very safe $P(y_t=1 y_{t-1}=1)$			
	OR	p-value	95% CI		OR	p-value	95% CI	
(Intercept)	0.18	0.000	0.10	0.31				
Very safe at home W2	0.95	0.928	0.34	2.68				
Ref: Adult household								
Single-parent family	0.50	0.020	0.28	0.90	0.91	0.857	0.32	2.55
Two-parent family	0.50	0.043	0.25	0.98	0.35	0.145	0.09	1.44
Older person	1.16	0.503	0.76	1.77	1.27	0.462	0.67	2.41
Ref: No education								
School	0.67	0.105	0.42	1.09	0.72	0.371	0.35	1.49
Post-school	0.84	0.504	0.51	1.39	1.06	0.895	0.47	2.39
Ref: British born British								
Outside UK British	0.61	0.306	0.24	1.56	0.89	0.910	0.11	7.00
non-British	0.39	0.038	0.16	0.95	0.48	0.430	0.08	3.01
Recent life events:								
Marriage	3.05	0.197	0.56	16.58	6.31	0.114	0.64	61.89
Victim of crime	1.66	0.173	0.80	3.42	0.48	0.235	0.14	1.62
Health issue	0.62	0.027	0.40	0.95	1.20	0.551	0.66	2.20
Ref: HIA								
TRAs	1.01	0.966	0.54	1.91	0.63	0.424	0.20	1.97
LRAs	1.12	0.692	0.65	1.92	0.51	0.264	0.16	1.66
WSAs	1.39	0.264	0.78	2.46	1.21	0.624	0.56	2.62
PEs	1.09	0.745	0.65	1.83	0.77	0.480	0.38	1.58
More than two people for emotional support	1.16	0.423	0.80	1.68	2.06	0.010	1.19	3.59
Talk to neighbours a great deal	2.07	0.000	1.38	3.11	1.98	0.020	1.11	3.53
Strongly agree someone intervenes	1.31	0.456	0.65	2.63	1.12	0.799	0.46	2.72
Very satisfied with kept informed	3.65	0.000	2.41	5.54	2.19	0.014	1.17	4.11
Very satisfied with:								
Parks	2.37	0.001	1.44	3.89	2.65	0.011	1.25	5.63
Shops	1.70	0.038	1.03	2.80	0.75	0.497	0.33	1.72
Police	1.38	0.243	0.80	2.36	3.41	0.006	1.43	8.11
Lighting	1.40	0.140	0.90	2.17	1.01	0.985	0.52	1.95
Had home improvement	1.53	0.026	1.05	2.23	1.52	0.160	0.85	2.73
Very safe after dark	3.55	0.000	2.07	6.09	1.05	0.905	0.49	2.22
N	1059							
% Correctly predicted (y=1)	52.5%							
% Correctly predicted (y=0)	87.6%							
% Correctly predicted (all)	75.2%							

Table 5. Feeling Very Safe in the neighbourhood after dark: logistic regression on cross-sectional sample

DV: Very safe outside after dark	Socio-demographic				Area of residence				Social relations				Empowerment				Services and safety at home			
	OR	p-value	95% CI		OR	p-value	95% CI		OR	p-value	95% CI		OR	p-value	95% CI		OR	p-value	95% CI	
(Intercept)	0.38	0.000	0.31	0.45	0.48	0.000	0.38	0.62	0.25	0.000	0.18	0.36	0.18	0.000	0.11	0.30	0.11	0.000	0.07	0.19
Female	0.39	0.000	0.32	0.47	0.37	0.000	0.30	0.45	0.33	0.000	0.26	0.40	0.32	0.000	0.26	0.40	0.32	0.000	0.26	0.40
Ref: Adult household																				
Older person	0.60	0.000	0.47	0.77	0.55	0.000	0.43	0.71	0.51	0.000	0.39	0.66	0.50	0.000	0.38	0.65	0.45	0.000	0.35	0.60
Single-parent family	1.00	0.988	0.74	1.34	1.00	0.990	0.74	1.35	1.02	0.924	0.75	1.38	1.05	0.760	0.77	1.43	1.05	0.775	0.76	1.44
Two-parent family	0.94	0.678	0.71	1.25	0.88	0.382	0.66	1.17	0.85	0.273	0.64	1.14	0.86	0.309	0.64	1.15	0.94	0.699	0.70	1.27
Ref: No education																				
School	1.31	0.020	1.04	1.64	1.35	0.011	1.07	1.69	1.35	0.012	1.07	1.71	1.35	0.012	1.07	1.71	1.35	0.015	1.06	1.72
Post-school	1.63	0.000	1.29	2.05	1.61	0.000	1.27	2.03	1.54	0.000	1.21	1.96	1.54	0.000	1.21	1.96	1.57	0.000	1.22	2.01
Ref: British born British																				
Outside UK British	0.32	0.000	0.19	0.53	0.47	0.004	0.28	0.78	0.58	0.047	0.34	0.99	0.58	0.046	0.34	0.99	0.55	0.035	0.32	0.96
non-British	0.42	0.000	0.30	0.58	0.63	0.011	0.44	0.90	0.80	0.249	0.56	1.16	0.82	0.292	0.57	1.19	0.72	0.091	0.49	1.05
Recent life events:																				
Marriage	1.63	0.032	1.04	2.54	1.68	0.024	1.07	2.62	1.68	0.027	1.06	2.67	1.74	0.020	1.09	2.76	1.53	0.078	0.95	2.47
Health issue	0.64	0.000	0.51	0.81	0.65	0.000	0.51	0.82	0.66	0.001	0.52	0.84	0.67	0.001	0.53	0.86	0.69	0.003	0.54	0.88
Ref: HIA																				
LRAs					0.39	0.000	0.28	0.55	0.42	0.000	0.29	0.59	0.44	0.000	0.31	0.63	0.45	0.000	0.31	0.64
PEs					0.90	0.438	0.70	1.17	0.82	0.143	0.63	1.07	0.83	0.175	0.63	1.09	0.90	0.464	0.68	1.19
TRAs					0.49	0.000	0.35	0.68	0.53	0.000	0.37	0.75	0.54	0.001	0.38	0.77	0.55	0.001	0.39	0.80
WSAs					0.97	0.802	0.75	1.25	0.99	0.938	0.76	1.29	1.01	0.952	0.77	1.32	1.08	0.576	0.82	1.43
Ref: No-one for financial support																				
More than two									1.40	0.050	1.00	1.95	1.34	0.086	0.96	1.88	1.22	0.251	0.87	1.73
One or two									1.53	0.011	1.10	2.12	1.43	0.033	1.03	1.99	1.33	0.097	0.95	1.87
Would not ask/Don't know									1.21	0.257	0.87	1.70	1.19	0.311	0.85	1.67	1.14	0.445	0.81	1.62
Talk to neighbors a great deal									2.36	0.000	1.93	2.88	2.21	0.000	1.80	2.71	1.93	0.000	1.56	2.38
Strongly agree someone intervenes									2.74	0.000	2.06	3.66	2.67	0.000	2.00	3.57	2.11	0.000	1.56	2.86
Ref: Strongly disagree with influence																				
Strongly agree													2.45	0.001	1.46	4.11	1.84	0.025	1.08	3.14
Agree													1.65	0.019	1.09	2.50	1.71	0.013	1.12	2.63
Neither													1.32	0.213	0.85	2.03	1.40	0.135	0.90	2.18
Disagree													1.22	0.388	0.78	1.90	1.41	0.140	0.89	2.22
Very satisfied with:																				
Parks																	1.60	0.000	1.24	2.06
Police																	1.70	0.000	1.30	2.23
Lighting																	1.32	0.013	1.06	1.65
Strongly agree with safe at home																	1.88	0.000	1.53	2.31
N	3697				3697				3697				3697				3697			
% Correctly predicted (y=1)	0%				0.7%				11.4%				12.1%				16.6%			
% Correctly predicted (y=0)	100%				99.7%				98.7%				98.7%				97.6%			
% Correctly predicted (all)	83.9%				83.7%				84.6%				84.7%				84.5%			
Log Likelihood	-1525				-1501 ***				-1425 ***				-1416 ***				-1358 ***			

Table 6. Feeling Very Safe in the neighbourhood after dark: Markov transition model on longitudinal sample

DV: Very safe outside after dark	Transition to feeling very safe $P(y_t=1 y_{t-1}=0)$				Remaining feeling very safe $P(y_t=1 y_{t-1}=1)$			
	OR	p-value	95% CI		OR	p-value	95% CI	
(Intercept)	0.10	0.000	0.05	0.21				
Very safe after dark Wave 2	1.90	0.394	0.43	8.30				
Female	0.30	0.000	0.18	0.49	0.33	0.069	0.10	1.09
Ref: Adult household								
Single-parent family	0.68	0.361	0.30	1.55	2.56	0.273	0.48	13.70
Two-parent family	0.69	0.383	0.30	1.59	1.93	0.452	0.35	10.81
Older person	0.45	0.004	0.26	0.78	0.15	0.017	0.03	0.72
Ref: No education								
School	1.67	0.076	0.95	2.95	1.66	0.374	0.54	5.07
Post-school	1.88	0.034	1.05	3.37	2.48	0.144	0.73	8.40
Ref: British born British								
Outside UK British	1.81	0.301	0.59	5.59	1.81	0.301	0.59	5.59
non-British	0.39	0.176	0.10	1.52	0.17	0.338	0.00	6.31
Recent life events:								
Marriage	0.68	0.731	0.07	6.27	0.66	0.851	0.01	51.58
Health issue	0.60	0.067	0.34	1.04	0.94	0.922	0.27	3.29
Ref: HIA								
TRAs	0.72	0.465	0.30	1.74	1.07	0.963	0.06	20.53
LRAs	0.37	0.034	0.15	0.93	1.25	0.800	0.22	7.18
WSAs	1.73	0.087	0.92	3.22	0.52	0.411	0.11	2.44
PEs	1.06	0.846	0.57	2.00	0.67	0.516	0.20	2.27
Someone for financial support	1.01	0.971	0.64	1.60	2.48	0.085	0.88	6.98
Talk to neighbours a great deal	2.99	0.000	1.83	4.90	1.03	0.955	0.33	3.24
Strongly agree someone intervenes	3.22	0.000	1.69	6.11	1.19	0.817	0.28	5.13
Strongly agree with influence	1.55	0.307	0.67	3.62	0.67	0.724	0.07	6.20
Very satisfied with:								
Parks	1.59	0.127	0.88	2.89	0.62	0.490	0.16	2.41
Police	2.60	0.002	1.41	4.78	1.80	0.489	0.34	9.45
Lighting	0.70	0.216	0.40	1.23	3.65	0.018	1.25	10.62
Strongly agree with safe at home	2.38	0.001	1.45	3.89	3.21	0.026	1.15	8.97
N	1062							
% Correctly predicted (y=1)	29.6%							
% Correctly predicted (y=0)	97.8%							
% Correctly predicted (all)	88.0%							

ⁱ According to the Scottish Crime and Justice Survey, the risk of property crime is a fifth higher in the most deprived areas compared with all of Scotland, and the risk of violent crime is two-thirds higher (Scottish Government 2014, Figure 3.1).

ⁱⁱ The items in the life events module were: a new job or promotion; unemployment, redundancy or reduced working hours or pay; you or your partner becoming pregnant or a parent; a serious health event, illness or

disability affecting you or another household member; serious problem with, or break-up of relationship with partner; death of someone close; marriage, or setting up home with a partner; been a victim of a crime.