
Fear of Crime in Zagreb, Croatia: Gender Differences in the Face of Incivilities and Prior Victimization

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Purpose:

This study examines the three-dimensional concept of fear of crime and has three aims: 1) to investigate gender differences in the emotional, cognitive and behavioural dimensions of fear of crime; 2) to investigate the impact of victimization on different dimensions of fear of crime in men and women; and 3) to investigate the relation of incivilities to different dimensions of fear of crime.

Design/Methods/Approach:

Data for the study were gathered from the Fear of Crime Study which included participants living in the Croatian capital. The criteria variables included measures of the three dimensions of fear of crime (affective, cognitive and behavioural). Incivilities and prior victimization were predictors, while age and education were control variables.

Findings:

There was no difference between men and women in the perception of insecurity when walking alone in a neighbourhood after dark, either in the perceived likelihood of victimization or in perceived incivility. The findings suggest that there are some differences in the correlation pattern of the three analysed dimensions of fear of crime in the female and male samples. Hierarchical linear regressions show that in the male sample, victimization due to theft was positively related and sexual victimization was negatively related to perceived insecurity, while in women victimization added significantly only to protective strategies. In both the male and female sample, incivilities made a significant independent contribution to an explanation of the perception of endangerment, the likelihood of victimization and the seriousness of crime consequences. In addition, the contribution of some different patterns of incivilities to the dimensions of fear of crime was established for the male and female sample.

Research Limitations/Implications:

The research is limited to the Croatian capital. Future research should include a representative sample of the whole state.

Practical Implications:

The results indicate the need for gender differentiation in programs for the greater safety of citizens.

Originality/Value:

The article gives a valuable insight into different dimensions and gender differences related to fear of crime. It also suggests the need for further clarity of operationalization.

UDC: 343.9(497.5)

Keywords: fear of crime, incivilities, prior victimization, gender differences, Zagreb, Croatia

Strah pred kriminaliteto v Zagrebu, Hrvaška: razlike med spoloma v povezavi z neredom in predhodno viktimizacijo

Namen prispevka:

Ta študija obravnava tridimenzionalen koncept strahu pred kriminaliteto s tremi cilji: 1) raziskati razlike med spoloma pri čustvenih, spoznavnih in vedenjskih dimenzijah strahu pred kriminaliteto; 2) raziskati vpliv viktimizacije na različne dimenzije strahu pred kriminaliteto med moškimi in ženskami; 3) raziskati povezavo socialnega in fizičnega nereda na različne dimenzije strahu pred kriminaliteto.

Oblike/ Metode/ Pristop:

Podatki za raziskavo so bili zbrani iz študije strahu pred kriminaliteto, ki je vključevala udeležence hrvaškega glavnega mesta. Opisne spremenljivke vključujejo meritve na področju treh dimenzij raziskovanja strahu pred kriminaliteto (čustvenem, spoznavnem, vedenjskem). Socialni in fizični nered ter predhodna viktimizacija sta bili neodvisni spremenljivki, medtem ko sta bili starost in izobrazba kontrolni spremenljivki.

Ugotovitve:

Med moškimi in ženskami ni bilo nobene razlike v zaznavanju negotovosti, medtem ko so ponoči sami hodili po soseki, bodisi v zaznavanju verjetnosti viktimizacije ali zaznavanju socialnega in fizičnega nereda. Ugotovitve v primerjalnem vzorcu kažejo, da med moškimi in ženskami obstajajo določene razlike v treh analiziranih dimenzijah strahu pred kriminaliteto. Hierarhična linearna regresija kaže, da je bila pri moških viktimizacija zaradi tatvine pozitivno povezana, spolna viktimizacija pa negativno povezana z zaznano negotovostjo, medtem ko so pri viktimizaciji žensk statistično pomembni samo preventivni ukrepi. Pri moških in ženskah je socialni in fizični nered statistično pomembna spremenljivka pri razlagi zaznave ogroženosti, verjetnosti viktimizacije in resnosti posledic kriminalitete. Poleg tega nekatere oblike neprimerne vedenja vplivajo na strah pred kriminaliteto ne glede na spol.

Omejitve raziskave:

Raziskava je omejena na hrvaško glavno mesto. Prihodnje raziskave bi morale vključevati reprezentativni vzorec celotne države.

Praktična uporabnost:

Rezultati kažejo na potrebo po diferenciaciji spola v programih za večjo varnost državljanov.

Izvirnost:

Članek podaja pomemben vpogled v različne dimenzije in razlike med spoloma v povezavi s strahom pred kriminaliteto. Predlaga tudi potrebo po nadaljnji jasni operacionalizaciji preučevanih konceptov.

UDK: 343.9(497.5)

Ključne besede: strah pred kriminaliteto, socialni in fizični nered, predhodna viktimizacija, razlike med spoloma, Zagreb, Hrvaška

1 INTRODUCTION

Since the 1960s, fear of crime has been a highly discussed phenomenon. Many authors agree that the concept is complex and multidimensional and that it requires a very careful and rigorous methodological approach in order to overcome numerous conceptualization, measurement and interpretation questions (more in Barker & Crawford, 2010).

It is suggested that that fear of crime has a cognitive, emotional and behavioural dimension (Gabriel & Greve, 2003; Sacco, 2005). The cognitive dimension reflects a subjective estimate regarding the possibility that an individual could become a victim, or an assessment of other aspects of victimization (e.g., severity of victimization consequences). The emotional dimension reveals a negative emotional response (in terms of worry, sense of insecurity or perception of threats) to the imaginative possibility of becoming a victim. Finally, the behavioural dimension reflects activity – what people actually do in response to crime or to their subjective assessment of risk. Usually two types of activities are researched in this context – avoidance and protective strategies. Avoidance strategies refer to restrictive or omissive behaviours – avoiding certain activities or places, or staying home at night. Protective strategies are more proactive – doing something for self-defence, such as installing burglar alarms or carrying something for self-protection.

Many models have been developed in an attempt to deconstruct the concept of fear of crime, such as the social integration model (Austin, Woolever, & Baba, 1994; Gibson, Zhao, Lovrich, & Gaffney, 2002), the vulnerability model (see Hale, 1996, for a review, and also Franklin & Franklin, 2009), the threat of victimization (Rader, 2004), and some authors have combined different models in constructing comprehensive models of fear of crime (Winkel, 1998; Killias & Clerici, 2000; Cates, Dian, & Schnepf, 2003; Farrall, Gray, & Jackson, 2007). In this article, we are interested in the incivility and prior victimization model of fear of crime.

This study also contributes to the existing body of literature by focusing on Croatia. It is important to expand current research to other regions of the world, since some factors of fear of crime may be culturally, e.g. context, dependent.

1.1 Incivilities

Incivilities (or disorders) are perceived as “low-level breaches of community standards that signal an erosion of conventionally accepted norms and values” (LaGrange, Ferraro, & Supancic, 1992: 312). Theoretically, they are discussed within the “broken window” theory, the “collective efficacy” theory and the “signal crimes perspective”. According to this theory (Wilson & Kelling, 1982), there is a causal link between disorder, crime and fear of crime. The first unrepaired window is a sign of decline in social control and creates a rupture of the social fabric of the community. Minor incivilities and offences which go unchecked (or ignored) by the community or relevant agencies can lead to greater and more serious criminal activity, because this conveys the message that no one cares and thus a criminal opportunity is created. In this sense, incivilities are criminogenic. Skogan’s (1990) findings give support to this theory, but Harcourt’s (2001) replication of this study questions the results, and Xu, Fiedler and Flaming (2005) challenge Harcourt’s methodology. The “collective efficiency” theory adds local environmental interactions to the disorder – crime – fear nexus, suggesting that anxieties about crime might not be dependent just on the local environment and residents’ perceptions, but also on the residents’ relationship to that environment. Thus, residents’ activities and reactions to their perception of the local environment become important (Bannister, 1993). Sampson and Raudenbush (1999: 612-613) define collective efficiency as “the linkage of cohesion and mutual trust with shared expectations for intervening in support of neighbourhood social control”. Their research into collective efficiency finds that both disorder and crime are symptoms of the same cause – the concentration of inequality and lowered collective efficacy.

Several studies have found a predictive value in residents’ perception of incivility regarding fear of crime (Covington & Taylor, 1991; Perkins & Taylor, 1996; Franklin & Franklin, 2009). Doran and Lees (2005) argue that, leaving aside the question of whether disorder causes crime, people tend to believe that disorder is a sign of crime and will therefore “read” a disorderly neighbourhood as an unsafe one. According to a “signal crimes” perspective, “some crime and disorder incidents matter more than others to people in terms of shaping their risk perceptions. This is because some crimes and some disorders (but not other ostensibly similar incidents) are especially ‘visible’ to people and are interpreted as ‘warning signals’ about the risky people, places and events that they either do, or might, encounter in their lives” (Innes, 2004: 336). However, a study in Africa finds that incivility was not a significant predictor of fear of crime (Adu-Mireku, 2002).

Some researchers differentiate between physical and social incivilities or disorder, where the first reflects signs of the physical deterioration of a certain area (e.g. graffiti, litter and rubbish in the street, abandoned or broken cars or buildings), while the second refers to certain activities or “threatening stranger behaviours” (homeless people, beggars, an open drug market, groups of unruly youths, drunks) (Ferraro, 1995; Sampson & Raudenbusch, 1999). On the other hand, others treat physical and social incivilities as a single construct (e.g. Ross & Mirowsky, 1999).

1.2 Victimization

The victimization thesis is one of the earliest propositions in the explanation of fear of crime which assumes that this is partially the result of prior victimization. Empirical validation of this thesis has shown mixed results. Some earlier studies have linked prior victimization to fear (Baumer 1978; Skogan & Maxfield, 1981), while others have found no relation or even negative associations between fear and victimization (Hill, Howell, & Driver 1985; McGarrell, Giacomazzi, & Thurman 1997; Winkel, 1998). The research done by Winkel (1998: 481) suggests that fear and victimization are related to each other through cognitive mediation and that “victims in general are characterized by active adaptational responses, resulting in a non-emergence of fear responses”. Quann and Hung (2002: 313) found that the relationship between victimization and fear of crime depends on the victimization type since victims of household crimes were “slightly more fearful of crime than victims of an offence against the person”. Some researchers have sought to differentiate between direct and indirect victimization. Adu-Mireku (2002) found that only indirect victimization (measured as recent victimization incidents in the community of which respondents had heard through the media or by talking with neighbours) and not direct victimization was a significant predictor in understanding fear of crime.

In a more recent study, Tseloni and Zarafonitou (2008) show that crime experiences are related to feeling unsafe at home alone after dark only via its association with feeling unsafe walking alone after dark and worry about becoming a victim of crime, and that indirect (knowing a victim) and direct (being a victim) prior victimization shape perceived future risk.

As pointed out by Wyant (2008: 42), it seems that “previous victimization might lead some to believe that they are at greater risk for future victimization, but those who have experienced prior victimization might also avoid certain areas or people they deem dangerous, thereby reducing their perceived vulnerability and fear”.

1.3 Gender Differences in Fear of Crime

A consistent research finding is that women have higher levels of fear, perceptions of insecurity, perceived risk, and perceived vulnerability than men (e.g. LaGrange & Ferraro, 1989, Chadee, Austen, & Ditton, 2007; Bilsky & Wetzels, 1997, Adu-Mireku, 2002), and theorists offer several explanations for this finding. Some criminologists suggest that gender differences in vulnerability to criminal victimization is caused by different socialization of boys and girls (e.g. Goodey, 1997), which accounts for men tending to minimize feeling fearful (Sutton & Farrall, 2005), and are also encouraged to encounter potential danger, while females are socialized to be more cautious. Other studies suggest that there are some biological gender differences. Experimental research has found that women react with higher levels of fear when presented with fear-inducing stimuli than do men (Bradely, Codispoti, Sabatinelli, & Lang, 2001). Research has also found that women have a higher anxiety potential

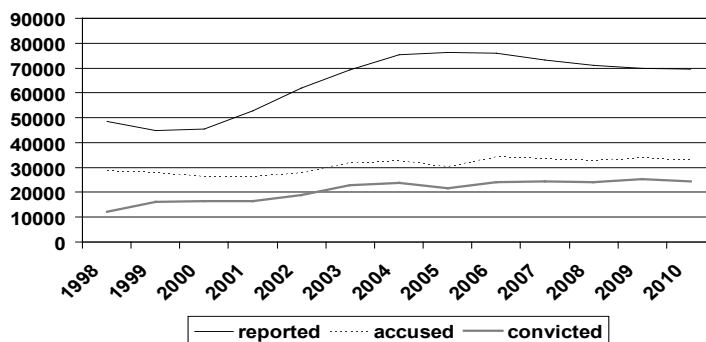
than men (Hollway and Jefferson, 2000), and a predisposition to anxiety and anxiety disorder (Lewinsohn, Gotlib, Lewinsohn, Seeley, & Allen, 1998), while psychological studies have found better memory in women for emotional stimuli than in men (Canli, Desmond, Zhao, & Gabrieli, 2002).

Studies have also found that women’s fear is much higher than men’s when crime involves direct confrontation with an offender because of their lower potential to defend themselves. This is primarily due to their lower physical strength and because of the potential for sexual victimization associated with other nonsexual crime (Fisher & Sloan, 2003; Williams & Konrad, 2004).

2 THE RESEARCH SETTING: CRIME AND FEAR OF CRIME IN CROATIA

According to official crime statistics, Croatia is a relatively safe country (see Figure 1). After a sharp increase in reported crime at the beginning of the 2000s, a certain decrease and levelling out has been observed since 2005. Data for accusations and convictions showed a small increase in the presented period, except in 2010, when there was a small decrease. As cited in the latest European publication using police data, the total offence rate in Croatia in 2007 was 2,50, while the rate for the other 42 European countries ranged from 279 to 14,46. The Croatian rate for completed intentional homicide was 1.6 (the international rate ranged from 0.6 to 7.4, with a mean of 2), the rate for rape was 3 (the international rate ranged from 0 to 53, with a mean of 9), and for robbery the rate was 28 (the international rate ranged from 4 to 199, with a mean of 56) (European sourcebook of crime and criminal justice statistics, 2010). Data on the crime structure (data for convicted persons from 1998 to 2010) show the prevalence of property crime (for adults and for juveniles), with a majority of male offenders. Suspended prison sentences were the most frequent criminal sanction for adults, and educational measures the most frequent for juveniles. Recidivism tended to increase in both adult and juvenile offenders (Kovčo Vukadin, 2011).

Figure 1:
Number of reported, accused and convicted adults in Croatia (Source: Državni zavod za statistiku [Croatian Bureau of Statistics], 2011)



Fear of crime and related topics have not been the subject of much systematic research in Croatia. Most studies have been conducted using convenience samples, while only a few used representative samples of Croatia or Zagreb.

Meško and Kovčo (1999) compared fear of crime in Slovenia and Croatia using Van der Wurff's model (Van der Wurff, Van Staalduinen, & Stringer, 1989) on a convenience sample of residents of three Slovenian cities and the Croatian capital, and found higher fear among females in both samples. This higher level of fear was also associated with higher general distrust and distrust in strangers, and lower personal physical competence. Meško, Kovčo, and Muratbegović (2009) analysed the socio-demographic and socio-psychological perspective of fear of crime in Slovenia, Croatia, and Bosnia and Herzegovina and also found higher fear of crime within female respondents, within those who reported a poor physical condition, who were unemployed, those who walk alone at night and those who perceive streets and woods as dangerous places. In addition, a higher fear level was found in respondents who perceive themselves as potential victims. A positive self-perceived ability to overpower the attacker and good health were related to lower fear. Glasnović Gjoni (2006) analysed age and gender differences in fear of crime on a convenience sample of Zagreb citizens (16 years and older), and the results were in line with existing knowledge that female and older respondents had a higher fear of crime.

The Institute of Social Sciences conducted surveys in 2003, 2005 and 2007 on a nationally representative probability sample of adults in Croatia. Based on these data, Šakić, Ivičić, and Franc (2008) analysed the trend in fear of crime and the relations between television viewing and fear of crime while controlling for demographic variables. They found a lower level of fear of crime in 2007 than in 2003 and 2005, although official crime data were relatively stable from 2003 to 2007. They also found that greater fear of becoming a victim of physical or verbal threats was expressed by those more frequently watching fictional or a documentary crime series. Franc, Prizmić-Larsen, and Kaliterna Lipovčan (2011) analysed personal security and fear of crime as predictors of subjective well-being on a representative sample of Croatian citizens and found relatively little association of most demographic characteristics with fear and perception of crime and substance abuse, and a positive relation of the level of urbanization and crime rates with fear and the perception of crime. A higher life satisfaction level was significantly but weakly predicted by higher feelings of safety and by a lower perception of corruption in the local area, when controlling for demographic variables and objective measures of local conditions.

Fuelled by a few cases of violence among juveniles with fatal consequences in November 2008, the City Office for Social Protection and for People with Disabilities in Zagreb initiated research on a convenience sample of young people and found that 54.5% of respondents feel safe in Zagreb, while 32.8% feel safe to some extent and 12.7% feel unsafe. Factors associated with a lower feeling of security were being female, younger, and having personal experience of violence (Galić, Ljubotina, Matic, Matešković, & Ninić, 2009). A national public opinion survey on citizens' perception of safety and security was conducted by the Ministry of the Interior and UNDP (United Nations Development Programme) in

2009 (Ministry of the Interior, GfK Croatia, 2009). A representative sample of adult citizens (N = 4,500) was interviewed either by telephone or in their households. The primary goals were to determine citizens' perception of safety and security and police procedures in their place of residence, and to obtain information on citizen contacts with the police. Researchers concluded that the perceived level of safety in Croatia is significantly higher than one might assume based on the media portrayal of the safety situation. The majority of respondents feel safe when they are alone in their own apartment/house (93%) or when they walk alone in their neighbourhood at night (86%). A higher sense of security was reported in rural areas, among males, and among younger respondents. Regarding the perceived ability for self-protection, approximately one-half of the citizens (57%) believe they can protect themselves from physical assault and can protect their property (60%). Every fifth respondent had undertaken some protective measures, the most cited were not carrying larger amounts of money, having a watchdog and anti-theft doors, avoiding poorly lit areas, and going out at night. Protective behaviour was higher in urban areas and among highly educated respondents.

3 THE PRESENT STUDY

The present study is concerned with the affective, cognitive and behavioural dimensions of the concept of fear of crime in so far as both victimization and incivilities are variably associated with these dimensions. It is also concerned with gender differences in these dimensions, and the gender differences in association with the affective, cognitive and behavioural dimensions of fear of crime. Therefore, the analysis was broken down by gender in order to assess the extent to which the findings are different for men and women.

The initial purpose of the study was to investigate gender differences in several emotional, cognitive and behavioural dimensions of fear of crime. The second was to investigate the direct impact of victimization on different dimensions of fear of crime in men and women. The third was to investigate whether incivilities were related to different emotional, cognitive and behavioural dimensions of the fear of crime.

The following research questions were addressed:

Q1: What are the gender differences in several emotional, cognitive and behavioural measures of the fear of crime? Do incivilities have greater impact in women?

Q2: How does victimization affect the different dimensions of fear of crime for men and women?

Q3: How do incivilities affect the different dimensions and alternative constructs of fear of crime for men and women?

The common correlates of fear of crime were included in the analysis as statistical controls to adjust for their effect on the relationships that are of central interest. Age was included as a control variable since it was found to be related to the fear of crime variables in previous research (e.g. Clemente & Kleiman, 1976; Jaycox, 1978; van Kesteren, Mayhew, & Nieuwbeerta, 2000; Ortega & Miles, 1987).

The elderly felt vulnerable because they felt unable to defend themselves (Warr, 1984; Warr, 1987), but they also avoid places and activities that would increase the likelihood of criminal victimization (e.g. Chadee & Ditton, 2003). Education was also included as a second control variable, since it has regularly been found to be associated with fear of crime, with lower education often being interpreted as a proxy for lower social class (Borooah & Carcach, 1997; Carcach, Frampton, Thomas, & Cranich, 1995; Adu-Mireku, 2002; Covington & Taylor, 1991).

3.1 Method

3.1.1 Data and Sample

Data for this analysis were derived from the 2009 Fear of Crime Survey conducted in the capitals of the five countries of the Former Yugoslavia (Croatia, Slovenia, Bosnia and Herzegovina, Serbia and Macedonia). Participants included a representative sample of Zagreb citizens (N = 379) aged 18 and over. Multistage probabilistic sampling was used in following manner:

1. selection of primary sampling units – 17 urban Zagreb districts;
2. selection of sampling points within districts that were proportional to district participation in the total population size;
3. household sampling (each 10th apartment or 7th house);
4. selection of respondents (technique of the first upcoming birthday).

The survey was conducted through “face-to-face” interviews in the participants’ homes. All interviewers (25 graduate students of Social Pedagogy, Faculty of Education and Rehabilitation Sciences, University of Zagreb) attended training sessions to become familiar with the questionnaire and the procedure for selecting survey participants within a household. Ten percent of the total sample was subject to fieldwork control conducted by three supervisors.

3.1.2 Measures

Criteria variables

Criteria variables included measures of different dimensions of fear of crime (e.g., affective, cognitive, and behavioural). The affective dimension was assessed by two measures (the perception of insecurity while walking alone in the neighbourhood after dark; and the perception of being endangered in specific, hypothetical criminogenic situations); the cognitive dimension was measured by three variables (the perceived likelihood of victimization, the perceived seriousness of crime consequences and the anticipated influences of crime consequences); and the behavioural dimension was by two variables (avoidance and protective strategies).

Affective dimension

Perception of insecurity. Respondents were asked "How safe do you feel being out alone in your neighbourhood at night" (1=very safe, 2=somewhat safe, 3=somewhat unsafe, 4=very unsafe).

Perception of endangerment. Respondents were asked how endangered they would feel in six situations described in vignettes (e.g. "One evening you are at home on your own. It's late. The doorbell rings, but you're not expecting anyone"). For each scenario, respondents were asked how unsafe would they feel in such a situation. A 5 point-scale was used ranging from 1=very unsafe to 5=very safe. After reverse scoring, a total score was created by adding the individual scores. This operationalization of fear of crime was done following Van der Wurff et al.'s social-demographic and social psychological model (1989).

Cognitive dimension

Perceived likelihood of victimization. Respondents were asked how likely they thought it was that they would fall victim to each of six crimes (street robbery, fraud, physical assault/fight, theft, verbal insult on the street, burglary) during the next 12 months. A 5-point scale was used ranging from 1=most likely to 5=most unlikely. After reverse scoring, a total score was created by adding the individual scores.

Perceived seriousness of crime consequences. Respondents were asked about the seriousness of the consequences if they fell victim to each of the six crimes (street robbery, fraud, physical assault/fight, theft, verbal insult on the street, burglary) during the next 12 months. A 5-point scale was again used ranging from 1=very serious to 5=no consequences. After reverse scoring, a total score was created by adding the individual scores.

Anticipated influences of crime consequences. Respondents were asked about the extent to which an experience of a typical instance of each category of criminal victimization would affect their lives. The questions used a five-point scale ranging from 1=very strongly to 5=not at all. After reverse coding, a total score was used as an index.

Behavioural dimension

Avoidance strategies. Respondents were asked about the frequency of taking 6 different avoidance strategies (e.g. "I avoid certain streets, blocks and parks"). A 5-point scale was used ranging from 1=always to 5=never. After reverse coding, a total score was used as an index (Cronbach's alpha 0.76).

Protective strategies. Respondents were asked about the frequency of taking active protective strategy by one item ("I always carry something to protect myself."). A 5-point scale was used ranging from 1=always to 5=never, and reverse coding was used.

Predictor variables

Perceived disorder or incivility. Eight items of various neighbourhood problems captured perceived incivilities. For each of them, the respondents were asked how serious each problem was in their neighbourhood by rating them on a 4-point scale (1=serious problem, 2=somewhat of a problem, 3=minor problem, 4=not a problem at all). The items capturing physical disorder (e.g., trash, graffiti, abandoned or

run-down buildings, vandalism) and social disorder (e.g., public drunkenness, young people causing a nuisance, beggars, homeless persons) were included in one measure because previous research had found that both represent a single underlying construct (Ross & Mirowsky, 1999; Franklin, Franklin & Fearn, 2008). The exploratory factor analysis of the results also indicated that all items loaded onto a single factor explaining 51.4% of variance (factor loadings ranged from 0.54 to 0.80). Items were recoded and summed, so higher values indicated greater perceived incivilities. The scale demonstrated acceptable internal consistency (Cronbach's alpha 0.86; expected range 8 - 32).

Previous victimization. Respondents were asked whether they had been victims of each of nine crimes (verbal harassment, physical injury, burglary, robbery, theft, car robbery, fraud and financial damage, sexual harassment, sexual assault) in the previous 12 months. The exploratory factor analysis (principal component analysis, rotation method varimax with Kaiser normalization) indicated a 4-factor structure. The first factor explained 19.2% of variance, the second factor explained 16.1%, the third 13.5%, and the fourth 12.0%. The first factor, "theft", included three items (theft, theft from car, financial fraud, with factor loadings of 0.72, 0.64, and 0.70, respectively). The second factor, "sexual victimization", refers to sexual crimes and included 2 items (sexual harassment and sexual assault, with factor loadings of 0.83 and 0.85, respectively). The third factor was "burglary" (including burglary and robbery, with factor loadings of 0.82 and 0.73). The fourth factor, "physical victimization", included two items (verbal assault and physical assault and injury with factor loadings of 0.67 and 0.79). All items loaded less than 0.30 on other factors. Total scores were created for all four scales derived from the factor analysis, by summing up the items of the scale.

Control variables

These included age (respondents' current age at the time of the interview), and education (1=*none*; 2=*primary school*; 3=*technical school diploma*; 4=*high school diploma*; 5=*associate's diploma*; 6=*bachelor's degree*; 7=*master's degree*; 8=*JD, PhD, or MD*).

3.2 Analysis

In order to compare men and women on the variables used in the study, a t-test for independent samples was used.

To answer the second and third research question (impact of victimization and incivilities on different affective, cognitive and behavioural aspects of fear of crime, while controlling for age and education), we used a hierarchical regression analysis, with age and education entered in the first step as controls, victimization in the second step, and incivilities in the last step.

3.3 Results

3.3.1 Descriptive Statistics, Correlations, and Gender Differences for Study Variables

Descriptive statistics for the research variables are presented in Table 1, while zero-order Pearson correlations coefficients are presented in Table 2.

The correlational analysis shows there are some differences in the correlation pattern in the female and male samples. In females, a younger age was related to a stronger perception of insecurity while being alone in the neighbourhood (-.14) and a higher likelihood of victimization (-.15), while in males there was no relation between age and perception of insecurity, but a younger age was related to a lower perception of endangerment (.24). In the female sample, higher education was found to be related to lower perceived influences of crime (-.17), while in the male sample a higher education was related to lower perceived endangerment (.25), and a lower perceived seriousness of crime consequences (-.19). In the female sample, significant correlations were also noted between age and education (-.31), age and theft victimization (-.20), age and sexual victimization (-.21), age and physical victimization (-.26), and age and incivilities (-.14). In the male sample, significant correlations were noted between age and physical victimization (-.26). In both samples, a younger age was related to a stronger perception of incivilities (-.14 for females and -.16 for men).

In the female sample, prior victimization, regardless of the victimization type, was not related to perceived insecurity or to perceived endangerment. However, being a victim of theft/financial damage or being a victim of sexual attack was related to a higher perceived likelihood of victimization (.14 and .15). In the male sample, prior theft victimization was related to the perception of insecurity (.18), and prior physical victimization was related to a lower perception of endangerment (-.20). Concerning the relationship between prior victimization and use of avoidance and protective strategies, in the female sample prior robbery/burglary victimization was related to greater use of avoidance (.14) and protective (.17) strategies, and prior physical victimization was related to the use of more protective strategies (.19), while in the male sample, prior victimization of any type was not related either to avoidance or protective strategies.

Perceiving physical and social incivility in the neighbourhood was related to both affective aspects of fear of crime in females (.30 for the perception of insecurity and .16 for the perception of endangerment), while it was not related to any of the affective variables in men. On the other hand, the perception of incivility was related to only one cognitive measure in females (.28 for the likelihood of victimization) and showed no relation to behavioural aspects, while in men incivility was related to a higher perceived likelihood of victimization (.48) and a higher perceived seriousness of crime consequences (.25), and the more frequent use of avoidance (.22) and protective strategies (.17).

Predictably, the two affective measures of fear of crime were also moderately correlated (.32 for females and .30 for males). In addition, emotional and cognitive measures of fear of crime had a low to moderate correlation in the male sample

(with the exception of one correlation), ranging from a correlation of .18 between the perception of insecurity and influences of crime consequences to .60 between the seriousness of the consequences and the influences of the crime consequences; and in the female sample (also with the exception of one correlation), the correlation ranged from .15 between the perception of insecurity and the influences of crime to .75 between the seriousness of the consequences and the influences of the crime consequences.

	Male (N=159)			Female (N=220)			Difference test
	M	SD	min-max	M	SD	min-max	
Age (years)	47.00	19.34	18-87	48.30	19.07	18-87	t = -0.64
Education (higher values indicate more education) ^a	5.17	1.66	2-8	4.80	1.81	1-8	t = 2.06*
V-theft	0.43	0.74	0-3	0.40	0.75	0-3	t = -0.34
V-sexual	0.13	0.11	0-1	0.04	0.23	0-2	t = -1.33
V-robbery/burglary	0.03	0.21	0-2	0.04	0.22	0-2	t = -0.42
V-physical	0.27	0.49	0-2	0.26	0.44	0-1	t = 0.24
Incivilities	17.79	5.58	8-30	17.71	5.82	8-32	t = 0.13
Perception of insecurity ^b	2.09	0.86	1-4	2.25	0.87	1-4	t = -1.85
Perception of endangerment ^y	17.16	4.44	8-30	20.63	4.40	6-30	t = -7.49**
Likelihood of victimization	16.41	4.90	6-30	16.40	4.42	6-30	t = 0.02
Seriousness of crime consequences	20.80	4.86	6-30	23.82	4.60	6-30	t = -6.11**
Influences of crime consequences	20.81	4.50	10-30	23.92	4.17	9-30	t = -6.90**
Avoidance strategies	16.53	5.76	6-30	21.43	5.30	6-30	t = -8.51**
Protective strategies	1.33	0.90	1-5	1.50	1.03	1-5	t = -1.67

Table 1:
Descriptive statistics of variables and gender differences

Note. M=mean; SD=standard deviation; t=t-test for independent samples; V=victimization.

^a 1=none; 2=primary school; 3=technical school diploma; 4=high school diploma; 5=associate's diploma; 6=bachelor's degree; 7=master's degree; 8=JD, PhD, or MD. ^b

measured by unsafeness while being alone in the neighbourhood at night. ^y measured by Van der Wurff's vignettes.

**p<.01; *p<.05.

In comparison to men (Q1), women reported higher feelings of being endangered in potentially dangerous situations, perceived a greater seriousness of crime consequences and perceived that if they became a victim, the crime would have more negative influences on their life, and they used avoidance strategies more frequently (see Table 1, p<.01 or p<.05). However, there were no differences between men and women in the perception of insecurity while walking alone in the neighbourhood after dark, or in the perceived likelihood of victimization. In addition, females did not have a higher level of perceived incivility than men.

Table 2.
Zero-order
Pearson
correlation
coefficients
among
variables

Variables	01	02	03	04	05	06	07	08	09	10	11	12	13	14
(01) Age	-	-.31**	-.19*	-.21**	-.04	-.26**	-.13*	-.14*	.11	-.15*	.25**	.38**	.24**	-.06
(02) Education	-.07	-	-.04	.02	.08	.10	-.01	.07	-.12	-.11	-.12	-.17*	-.12	.03
(03) Victimization-theft/financial	-.11	-.08	-	.09	.11	.12	.04	.06	-.01	.13*	-.08	-.11	-.04	.04
(04) Victimization-sexual	-.12	-.08	.16*	-	-.03	.09	.09	.11	.05	.15*	-.06	-.03	-.03	.06
(05) Victimization-robbery/burglary	.05	.13	.12	-.02	-	.13	.07	.04	.05	.10	-.03	.04	.14*	.17*
(06) Victimization-physical	-.22**	.02	.15	.05	.04	-	.06	.12	-.00	.07	-.06	-.09	-.01	.19**
(07) Incivilities	-.16*	-.09	.30**	.00	.10	.11	-	.30**	.16*	.28**	.11	.09	.02	.02
(08) Perception of insecurity	.05	-.15	.18*	-.14	.02	.02	.12	-	.32**	.29**	.16*	.15*	.06	.02
(9) Perception of endangerment	.24**	-.25**	.02	-.12	.01	-.19*	.15	.30**	-	.23**	.38**	.46**	.31**	-.02
(10) Likelihood of victimization	-.05	-.04	.25**	-.07	.04	.13	.48**	.19*	.22**	-	.22**	.08	.06	.06
(11) Seriousness of crime consequences	.36**	-.19*	.04	-.12	.13	.03	.25**	.11	.40**	.45**	-	.75**	.32**	-.04
(12) Influences of crime consequences	.40**	-.14	-.02	-.21**	.13	-.12	.14	.18*	.35**	.24**	.60**	-	.32**	-.04
(13) Avoidance strategies	.32**	-.12	.02	-.15	.09	-.00	.22**	.24**	.38**	.34**	.46**	.53**	-	.07
(14) Protective strategies	-.09	-.08	.15	-.04	-.06	.01	.17	.17	.08	.19*	.03	.12	.29**	-

Note: Correlation coefficients for female sample are provided above the diagonal and for male sample below the diagonal.

3.3.2 The Victimization and Incivility Model in Predicting Affective, Cognitive and Behavioural Components of Fear of Crime

To investigate the victimization effect on different dimensions of fear of crime (Q2), a set of hierarchical regression analyses was conducted, separately for men and women, and controlled for age, education, and incivility (See Tables 3 and 4).

In the first stage, the respondents' age and education were entered. In the second, four victimization variables were entered. In the male sample, this step added significantly to the variance explained for perceived insecurity while walking alone after dark and the likelihood of victimization. Beta coefficients from the final equation including incivility showed that in the male sample victimization due to theft was positively, and sexual victimization was negatively, related to perceived insecurity. Physical victimization was negatively related to perceived endangerment, indicating that men as victims of previous physical victimization, on average, have less fear of crime measured by van der Wurff's vignettes. In the female sample, experience of victimization added significantly only to protective strategies, explaining an additional 5% of variance.

In order to test research question 3, incivilities were entered in the last stage of the analysis. In both men and women, incivility made a significant independent contribution to the explanation of the perception of endangerment ($\beta = .16$, $p < 0.05$ and $\beta = .16$, $p < 0.05$, respectively), the likelihood of victimization ($\beta = .44$, $p < 0.01$ for men and $\beta = .24$, $p < 0.01$ for women), and the seriousness of crime consequences ($\beta = .29$, $p < 0.01$ for men and $\beta = .15$, $p < 0.05$ for women). However, in the male sample, incivility was also related to the influences of crime consequences ($\beta = .20$, $p < 0.05$), and avoidance strategies ($\beta = .27$, $p < 0.01$), while this was not the case in the female sample. In contrast to men, in the women's sample incivilities explained an additional variance also in unsafeness while walking alone after dark ($\beta = .28$, $p < 0.01$). In both men and women, incivility was a significant predictor for four out of five affective or cognitive fear of crime measures. In the male sample, this was not a significant predictor for perceived insecurity while walking alone in the neighbourhood after dark, and in women it was not significant predictor for the perceived influences of crime consequences.

Overall, in the male sample, the regression models, including both victimization and incivility, were significant for six out of seven measures of fear of crime, ranging from 6% variance explained in walking alone after dark to 23% variance explained in the likelihood of victimization. In women, the overall adjusted R^2 was significant for five out of seven measures of fear of crime, explaining from 9% variance in walking alone after dark to 13% in the influences of crime consequences.

Table 3. Hierarchical linear regressions, regressing the different affective, cognitive and behavioural dimensions of fear of crime onto age, education, victimization and incivilities in men

Predictor	Affective dimension			Cognitive dimension			Behavioural dimension		
	Perception of insecurity ^a	Perception of endangerment ^b	Likelihood of victimization	Seriousness of crime consequences	Influences of crime consequences	Avoidance strategies	Protective strategies	ΔR^2	β
Step 1c	ΔR^2	ΔR^2	ΔR^2	ΔR^2	ΔR^2	ΔR^2	ΔR^2	ΔR^2	β
Age	.02	.11**	.00	.15**	.16**	.13**	.02		
Education	.08	.22**	.06	.38**	.36**	.38**			-.06
Step 2	.07*	.04	.09**	.04	.05	.03	.03		-.06
V-theft/financial	.22*	.03	.14	-.04	-.05	.01			.13
V-sexual	-.18*	-.11	-.09	-.09	-.16	-.12			-.08
V-robbery/burglary	-.00	.01	-.03	.10	.12	.04			-.07
V-physical	.01	-.16*	.07	.09	-.04	.04			-.03
Step 3	.00	.02*	.17**	.07**	.03*	.06**	.01		
Incivilities	.05	.16*	.44**	.29**	.20*	.27**			.13
Full model Adjusted R ²	.06*	.14*	.23**	.23**	.21**	.18**	.01		

^aControl variables

*p<.05. ** p<.01.

Note. β are standardized regression coefficients from the final equation. V=victimization. ^ameasured by "unsafe walking alone after dark in area of residence"; ^bmeasured by feeling unsafe in six hypothetically criminogenic situations described in vignettes.

Predictor	Affective dimension			Cognitive dimension						Behavioural dimension			
	Perception of insecurity ^a	Perception of endangerment ^b	Likelihood of victimization	Seriousness of crime consequences	Influences of crime consequences	Avoidance strategies	Protective strategies	ΔR^2	β	ΔR^2	β	ΔR^2	β
Step 1 ^c	.02	.02	.05**	.06**	.13**	.06**	.06**	.00				.00	
Age	-.03	.13	-.12	.26**	.36**		.26**				.26**		-.01
Education	.05	-.10	-.14*	-.03	-.066		-.06				-.06		.00
Step 2	.02	.01	.03	.00	.01	.03	.03	.05*				.05*	
V-theft/financial	.05	.02	.05	-.05	-.06		.00				.00		.00
V-sexual	.08	.06	.12	-.00	.05		.02				.02		.04
V-robbery/burglary	.02	.07	.08	-.02	.07		.15				.05		.13
V-physical	.09	.04	.01	.02	-.00		.05				.05		.16
Step 3	.08**	.03*	.06**	.02*	.01	.06**	.02*	.00	.00	.00	.04	.00	-.01
Incivilities	.28**	.16*	.24**	.15*	.12	.10**	.15*	.06**	.13**	.06**	.04	.02	
Full model Adjusted R ²	.09**	.03	.10**	.05*									

^c Control variables

*p< .05. ** p< .01.

Note. β are standardized regression coefficients from the final equation. V=victimization. ^ameasured by "unsafe walking alone after dark in area of residence", ^bmeasured by feeling unsafe in six hypothetically criminogenic situations described in vignettes.

Table 4.
Hierarchical linear regressions, regressing the different affective, cognitive and behavioural dimensions of fear of crime onto age, education, victimization and incivilities in women

4 DISCUSSION AND CONCLUSIONS

The primary purpose of this study was to broaden understanding of fear of crime by focusing on gender differences in the emotional, cognitive and behavioural aspects of fear of crime in an urban sample of citizens of capital cities. In line with previous research (e.g. LaGrange & Ferraro, 1989, Chadee et al., 2007; Bilsky & Wetzels, 1997, Adu-Mireku, 2002; Meško & Kovčo, 1999), women in comparison to men reported higher feelings of being endangered in potentially dangerous situations, perceived a higher seriousness of crime consequences, felt that if they became a victim, the crime would have more negative influences on their life, and they used avoidance strategies more frequently. Although females are prone to experience anxiety they are twice as likely to have experienced an anxiety disorder than males, as early as the age of 6 (Lewinsohn et al., 1998), previous research found that gender difference in fear of crime, measured as worrying about becoming a crime victim, is fully explained by risk perception (Jackson, 2009).

However, contrary to our expectations, there was no difference between men and women in the perception of insecurity (captured by the “being in the neighbourhood after dark” measure), or in the perceived likelihood of victimization. The question “How safe do you feel walking alone in your area after dark?” has been used by the International Crime Victim Survey (ICSV) in its survey of victimization for several years, and the question was designed to measure perceived security in relation to street crime. Therefore, it differs from the questions that measure vulnerability to other types of crimes measured by Van der Wurff’s vignettes (Van der Wurff et al., 1989) and this measure can be interpreted as perceived general security in relation to different crimes. According to research done by UNDP (Ministry of the Interior, GfK Croatia, 2009), a large majority of Croatian citizens (86%) feel safe when they walk alone in their neighbourhood at night, and the sense of security is generally higher in rural areas than in urban ones and women feel less safe than men. It seems, therefore, that this finding is specific for the sample used, e.g., the capital city of Zagreb in comparison to a representative sample of Croatia. The current analysis reveals that females do not report an increased level of perceived incivility in comparison to men, contrary to previous research done by Franklin & Franklin (2009).

We found that in younger females a bivariate relationship with the stronger perception of insecurity while being alone in the neighbourhood and the higher likelihood of victimization, while there was no relation between these variables in males. However, in a hierarchical analysis, the relationship between age and the perception of insecurity was not statistically significant, and only incivility had a significant relation to the perception of insecurity. It seems that females link incivility and insecurity in streets at night, suggesting that incivility for women is the sign that street crime is possible, while this is not the case for males who do not link incivility with street crime. This finding is consistent with the view that younger females are afraid of street crime and sexual assaults that may be associated with attacks by strangers in the street.

Both the victimization and incivility models were used to explain the dimensions of fear of crime. After controlling for age and education, in the male

sample, previous victimization was found to affect feelings of insecurity while walking alone in one's own area after dark and the likelihood of victimization. Men who were victims of theft have a higher level of insecurity and those who were victims of sexual victimization have a lower level of insecurity. In addition, those who reported previous physical victimization have a lower level of fear of crime measured as endangerment in potentially criminogenic situations. It may be that men with physical victimization are, on average, more prone to physical fights, and are also more physically capable and therefore feel more able to cope with dangerous situations and have less fear of crime, e.g. perceived endangerment in potentially dangerous situations. However, the results suggest different relations of types of victimization to fear of crime measures.

On the other hand, experience of crime by women was predictive only for using protective strategies, but explained only 4.8% variance. Recently, Tseloni and Zarafonitou (2008) found that previous direct and indirect victimization has an effect on feeling unsafe walking alone in one's own area after dark, but on a sample consisting of both men and women. However, the results of our study support the need to differentiate between victimization experiences and the need to analyse gender differences. It should also be noted that the results may be dependent on the victimization measure. If different victimization measures were to be used in subsequent analyses, the findings may be different (for example, victimization may be constructed as either being or not being victimized at all in a lifetime, regardless of the type of crime). In addition, Gray, Jackson, and Farrall (2006) point out that the effect of victimization was found to strengthen when new, more precise measures of fear of crime are employed. This study did not use a measure such as "worry" and it is for future studies to investigate the relationship between these "new" and "old" measures and victimization.

The perception of incivility signifies a lack of informal social control, leading to one's perception of community disorder which may in all likelihood translate into perceived threats to personal safety (Kennedy & Silverman, 1985). This study shows that both in men and women incivility is significantly and positively related to perceived endangerment, a perceived likelihood of victimization, and the perceived seriousness of crime consequences. In men, it is also significantly and positively related to the perceived influences of crime consequences, but is not related to perceived insecurity while walking alone in the neighbourhood after dark. On the contrary, in the women's sample, it was related to perceived insecurity while walking alone in the neighbourhood after dark, but was not related to the perceived influences of crime consequences. It seems that for some variables incivility operates in the same way across genders, while for some other variables it does not. In addition, since regression models, including age and education as control variables, and victimization and incivility were significant in men for six out of seven measures of fear of crime (ranging from 6% variance explained in walking alone after dark to 23% variance explained in the likelihood of victimization), and in women for five out of seven measures of fear of crime (explaining from 9% variance in walking alone after dark to 13% in influences of crime consequences), it seems that, besides incivility, some other variables may be very important in explaining fear of crime.

It seems that men's feelings of safety while walking alone after dark is not at all affected by perceived incivilities, while females' feelings of unsafeness while walking alone after dark are affected by perceived incivilities. As far as men are concerned, they walk at night more often, both in company or alone, and it seems that although they feel the same level of safeness as women, this is not related to incivilities. On the other hand, women link perceived incivilities with more feelings of unsafeness while walking alone after dark. It may be that this is because they have a greater perception of risk of street crime (indirect effect), but also because the perceived incivilities also cause more feelings of unsafeness regardless of the risk perception (direct effect). The results thus point to the fact that although women do not perceive more incivilities than men, they are more sensitive to a disordered environment and also associate this disordered environment with the perception of vulnerability to street crime. In essence, women and men differ in the way they experience unpleasant events. Galli, Wolpe, and Otten (2011) found that anticipatory brain processes influence the way in which women encode negative events in their memory.

It should be noted that feelings of unsafeness while walking alone after dark do not present a measure of frequency or duration of walking alone after dark. It may well be that women walk alone after dark less frequently than men, and that their level of unsafeness in this situation is also affected by factors other than perceived incivilities.

Given that the relationship between incivilities and fear of crime vary by the type of the measure used for the fear of crime across gender, it seems valuable to analyse the relationship of incivility with different measures and to break down the analysis by gender, since at least for some variables (e.g. feelings of unsafeness while walking alone after dark, as shown in this study) it may be that the relationship between incivility and fear of crime is somewhat different in men and women.

Although the present study extends prior victimisation and incivilities research, some important limitations should be acknowledged when interpreting the results. First, the study used standard and criticized measures of fear of crime (i.e. asking individuals how safe they feel walking alone in their area after dark, or asking them how safe they would feel in hypothetical situations), while it seems that a more precise operationalization of measuring the everyday emotional experience of fear of crime would be to ask the respondents about the previous frequency of worry (Farall & Gadd, 2004; Gray, Jackson, & Farrall, 2008). Second, the analysis presented here referred to crime in general. A separate analysis for personal and property crimes may give some additional information. Third, the sample used is not representative of Croatia, but of the Croatian capital, and therefore the results cannot be generalized for Croatia as a whole and especially not for rural areas.

In order to overcome the overestimated gender differences in fear of crime, future research should use carefully created measures of fear of crime and combine a quantitative and qualitative analysis. Contrasting results on gender differences in different measures of fear of crime emphasize the need for careful conceptual and operational explanations in estimating gender differences, as several other studies have stipulated (Callanan & Teasdale, 2009, Franklin & Franklin, 2009).

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