VARSTVOSLOVJE, Journal of Criminal Justice and Security
year 14
no. 4
pp. 460-477

Perceived Neighbourhood Social Disorder and Attitudes toward Feeling Safe in Sarajevo

Elmedin Muratbegović, Fahrudin Memić

Purpose:

In this article, the authors examine how fear of crime levels vary depending upon the degree of quality of living conditions within neighbourhoods. Additionally, the intervening mechanisms that link the degree of living quality with the level of fear of crime within neighbourhoods of Sarajevo, the capital city of Bosnia and Herzegovina will be explored.

Design/Methods/Approach:

This article shows the impact which neighbourly relations and social (dis) organization have on citizens' perceptions of the so-called fear of crime. In order to measure the fear of crime in general, the authors relied on Van der Wurff's model which has already been widely used in criminology and which is based on six vignettes describing six different social situations. The authors used a multi-stage random probability method to select a representative sample of households living in urban zones of Sarajevo. The sample population (N = 400) consisted of adult (18 years or older) inhabitants of urban areas comprising Sarajevo, the capital of Bosnia and Herzegovina.

Findings:

The Neighbourhood Disorder and Fear of Crime models indicate that well-developed social networks have a significant impact on feeling safe within Sarajevo's neighbourhoods.

Research Limitations/Implications:

The most serious objection that can be raised with regard to this survey is the application of the interview as the only data collection technique. Most certainly, the inclusion of other techniques (e.g. focus groups) and methods would achieve more valid results.

Practical Implications:

From the perspectives of practical implications, fear of crime can negatively impact citizens' lives, and it is important to prevent this phenomenon in our communities, through everyday police activities and activities of other institutions of formal and informal social control.

Originality/Value:

The incidence and perceptions of safety in Sarajevo has become linked with perceived problems of social stability, moral consensus, and the collective informal control processes that underpin the social order of neighborhoods.

UDC: 343.9(497.6)

Keywords: fear of crime, neighborhood, social disorder, risk of crime, safety feeling, Sarajevo, Bosnia and Herzegovina

Zaznava socialnega nereda v soseski in odnos do občutkov varnosti v Sarajevu

Namen:

V članku avtorja preučujeta intenzivnost strahu pred kriminaliteto glede na kakovost življenjskih pogojev v mestnih četrtih. Poleg tega se avtorja ukvarjata z vmesnimi mehanizmi med stopnjo kvalitete življenja in nivojem strahu pred kriminaliteto v soseskah Sarajeva, glavnega mesta Bosne in Hercegovine.

Metode:

Članek poskuša prikazati vpliv sosedskih odnosov in socialne (ne) organiziranosti na zaznavo tako imenovanega strahu pred kriminaliteto pri prebivalcih. V raziskavi sta avtorja za merjenje strahu pred kriminaliteto uporabila v kriminologiji večkrat uporabljen Van der Wurffov model, ki temelji na šestih vinjetah in opisuje šest različnih situacij, v katerih se posameznik lahko znajde. Avtorja sta uporabila večstopenjsko slučajnostno vzorčenje gospodinjstev v mestnih območjih Sarajeva. Vzorec populacije (N = 400) so sestavljali odrasli (18 let ali več) prebivalci mestnih območij Sarajeva, glavnega mesta Bosne in Hercegovine.

Ugotovitve:

Oba modela »Nered v soseski« in »Strah pred kriminaliteto« kažeta, da imajo dobro razvite socialne mreže velik vpliv na občutek varnosti v mestnih četrtih Sarajeva.

Omejitve:

Omejitve pri raziskavi se kažejo predvsem v uporabi intervjuja kot edinega načina zbiranja podatkov. Prav gotovo bi z vključitvijo tudi drugih metod (ciljna skupina itd.) dosegli bolj veljavne rezultate.

Praktična uporabnost:

Strah pred kriminaliteto lahko negativno vpliva na življenje prebivalcev, zato je pomembno, da se s pomočjo vsakodnevnih dejavnosti policije in dejavnosti drugih institucij formalnega in neformalnega družbenega nadzora ta pojav v naši skupnosti preprečuje.

Izvirnost prispevka:

Dojemanje varnosti je v Sarajevu povezano z zaznavo problematike socialne stabilnosti, moralnega konsenza in kolektivnega neformalnega nadzora vzdrževanja družbenega reda v soseskah.

UDK: 343.9(497.6)

Ključne besede: strah pred kriminaliteto, soseske, družbeni nered, nevarnost kriminalitete, občutek varnosti, Sarajevo, Bosna in Hercegovina

1 INTRODUCTION

Two recent studies confirm that one of our most primal needs is the feeling of safety. One of the biggest problems of contemporary criminology is the dilemma of how safety and fear of crime interrelate. Fear of crime constitutes a topic of significant interest for criminologists and has generated an extensive body of research. This focus is likely due to the fact more people experience fear of crime than experience an actual criminal victimization. Defining "fear of crime" has generated some controversy and no single agreed-upon definition exists. Fear of crime has included "a variety of emotional states, attitudes, or perceptions" (Warr, 2000). Factors influencing the fear of crime include the psychology of risk perception (Jackson, 2006; Jackson, 2011), circulating representations of the risk of victimization (chiefly via interpersonal communication and the mass media), public perceptions of neighbourhood stability and breakdown (Skogan & Maxfield, 1981; Wilson & Kelling, 1982), and broader factors where anxieties about crime express anxieties about the pace and direction of social change. Perhaps the largest influence on fear of crime is public concern about neighbourhood disorder, social cohesion and collective efficacy (Perkins & Taylor, 1996; Wyant, 2008). The incidence and risk of crime has become linked with perceived problems of social stability, moral consensus, and the collective informal control processes that underpin the social order of a neighbourhood (Bannister, 1993). In this article, the authors examine how levels of fear of crime vary with the degree of quality of living conditions across neighbourhoods. Additionally, this study takes a rare look at some of the intervening mechanisms that link the degree of living quality with the level of fear of crime. From another perspective, fear of crime can be a motivator of the wrong kind of behaviour, and it is important to prevent this phenomenon in our communities.

This article examines fear of crime in Sarajevo, the capital of Bosnia and Herzegovina. Sarajevo experienced a large economic boom, particularly after 1984 when it hosted the Winter Olympics. Unfortunately, Sarajevo is today better known as the location of the longest siege in post-World War II history, which occurred from April 1992 to December 1995. We chose to examine the correlation between the fear of crime and social networks, disrupted neighbourly relations, anxiety due to crime, close friendships and protective measures taken by citizens in the Sarajevo.

We expected socio-economic differentiation, represented by "neighbourhood quality" and "population cohesion", to influence individual perceptions of the fear of crime. In the present article, reports will focus on individuals residing within an urban environment. Methodology that was applied for fear of crime surveys will be described as well as the results of the surveys conducted in two countries, Bosnia and Herzegovina and Slovenia (Meško, Fallshore, Muratbegović, & Fields, 2008), and Slovenia and Croatia (Meško & Kovčo, 1999). Another study that was used for

present article is about connective links between victimization and fear - testing a theory of psychological incapacitation in the capital cities of the former Yugoslav Republics (Meško et al., 2009). Based on the background information of culture and post-war conditions and the results of the current surveys, the relationship between the results and cultural and post-war aspects with regard to fear of crime will be discussed. The article concludes with a discussion of what these findings mean within the context of research on fear of crime and neighbourhood social disorder.

2 METHODOLOGICAL FRAMEWORK

In this research, we used an interview method conducted on a representative sample of adult (18 years old and more) inhabitants of households located in urban zones within Sarajevo, Bosnia and Herzegovina. The sampling procedure was a multi-stage random probability method, and was carried out in four stages. The first stage defined the city areas (i.e. the wider neighbourhoods) in which the research would be conducted – the primarily sampling units. Since the population in this study consisted of urban inhabitants, suburban and rural settlements, as well as industrial and business areas, were therefore excluded at this stage of designing the sample. We picked urban municipalities and the urban parts of the mixed municipalities, excluding the suburban ones. When we obtained the map of primary sampling units, we defined the proportionate participation of each such segment in the whole sample. The second step in designing the sample consisted of precisely defining the sampling points; i.e. the streets or parts of the streets inside the primary sampling units, defined in the first step, in which the polls would be conducted. Each sampling point was defined as a path with a specific starting point and given the direction of the pollsters' movement. In this way, we obtained a list of 40 precisely defined paths for each city (from point A towards point B) where the pollsters would move and in such designed areas to find their interviewees. Inside each sampling point, 10 interviews were conducted, with the next step specifying the procedure for finding of convenient households in which the poll or interview would be conducted. The selection of a household was carried out using the random-route technique. The disposition of households was defined according to the city size and the type of settlement, and the pollsters were instructed to walk on the left side of the street. The final step in sample design consisted of defining the procedure for the choice of the interviewees inside the previously correctly chosen household. Our selection of one respondent per household was on "next birthday" selection-key. The procedure prescribed that the pollster should knock at the door of the correctly chosen household, say his/her name and ask for cooperation in the survey, ask how many members of that household are adults (18 years or older), and then pick the one whose birthday falls next (chronologically). The change of such designated respondents was allowed only if after three attempts (one initial visit and two call-backs) the pollster could not conduct the interview. In case it was impossible to find the correctly chosen interviewee or if he refused to participate

in the poll, the pollsters continued the interviewing according to the plan of movement in that sampling point.

The polling was conducted from April through June, 2009 by students at the University of Sarajevo[1], after field work training and after receiving precise instructions regarding the procedure for polling and keeping the research documentation. The interviewing process was supervised by experienced researchers from the universities, research assistants at the faculty, who also controlled the input and creation of the databases. Apart from the permanent supervision of the interviewing process by the staff of the universities, and in accordance with international research standards, a check of at least 15% of the effective interviews was performed in each of the municipalities using some of the back/check options (direct supervision during the interview, visit of the supervisor to the interviewed households, check by phone calls to the interviewed households).

The data for three capitals came from a survey of people living in urban area of Sarajevo. A stratified random sample of 400 residents of urban Sarajevo which consists of four municipalities: Stari Grad, Centar, Novo Sarajevo and Novi Grad (see Table 1) were selected.

Table 1: Respondents' socio-demographic profile

Sarajevo		
	N	%
Age	**400**	
18–29	162	40.50
30–39	37	9.25
40–49	57	14.25
50–59	51	12.75
60–69	49	12.25
70 and more	44	11.00
Gender	**400**	
Male	204	51.00
Female	196	49.00
Educational level	**400**	
Primary school	35	8.75
Secondary school	227	56.75
Some College (2 yrs)	38	9.50
University Degree	95	23.75
Masters or PhD	5	1.25
Homeowner	**400**	
Homeowners	326	81.50
Renters and others	74	18.50
Living at this address	**400**	
Less than 1 year	3	0.75
1-3 years	73	18.25

1 *Faculty of Criminal Justice and Security, University of Sarajevo, Sarajevo, Bosnia and Herzegovina*

4-6 years	57	14.25
7-10 years	47	11.75
More than 10 years	220	55.00
Total number of household members	**400**	
Living alone	44	11.00
2 members	101	25.25
3 members	107	26.75
4 members	98	24.50
5 members	38	9.50
6 members	10	2.50
7 or more members	2	0.50

3 ANALYSIS AND RESEARCH ISSUES

This article shows the impact by which neighbourly relations and social (dis) organization have on the citizens' perceptions related to their fear of crime. In order to measure the fear of crime in general, we relied on Van der Wurff's model which has already been widely used in criminology and which is based on six vignettes describing six different situations (Van der Wurff, Van Staalduinen, & Stringer, 1989). The advantage of the six vignettes is that they enable measurement of complex social situations, which respondents can imagine and accurately present. Previous studies of fear of crime in Europe have shown that these vignettes are an appropriate tool and that they accurately reflect the opinions of the respondents. The following outlines the vignettes: ***Doorbell*** One evening you are at home on your own. It is late. The doorbell rings, but you are not expecting anyone; ***Car*** One evening you go to take out the garbage. On the street you see two men walking around a parked car. When they see you looking at them, they begin to walk toward you; ***Party*** You have been invited to a party in a neighbourhood you do not really know. Early that evening you set out by bus. When you get off you still have some way to walk. Suddenly you notice that you have lost your way. A group of youths is following you and are giving unpleasant remarks at you; ***Bus stop*** One afternoon, you are standing at a bus stop when a group of 15 or 16-year-olds comes along. They begin kicking the bus stop and daubing graffiti on the bus shelter; ***Telephone*** You are going out one evening. You are ready and just about to leave when the phone rings. You answer, giving your name. But at the other end you hear only irregular breathing. You ask who is there. They hang up; ***Bar*** You are in a part of town where you have never been before. You go into a bar and inside there is a group of loud speaking local males. The vignettes 1- very vulnerable, 2 - quite vulnerable, 3 don't know, 4 - quite safe and 5 - very safe are used to develop a composite variable from the vignette variables (Table 2) that is called the "SAFETY (FROM CRIME) FEELING" (F0). The composite variable is obtained using the factor analysis model (Table 9). The term safety here is used as opposite to the feeling of the fear. In other words, when a person has higher feeling of fear that means she or he has lower feeling of safety and vice versa. The fear of crime and safety feeling will be used interchangeably in this article.

We used questions about neighbourly relations, perception of the quality of life in the city among citizens of Sarajevo, as well as questions about their social networks and their trust for the people who live in their neighbourhood. In order to obtain a more complete answer about a subjective feeling such as fear, we also asked respondents how they would feel if they were to become the victim of different types of crime, as well as what measures they are taking to prevent becoming a victim of a criminal or a criminal group. As presented in this article, all of these complex situations have a significant impact on the subjective feeling of citizens about the safety of their community (i.e., their fear of crime). In relation to that, we have used several questions from the questionnaire to develop composite variables (F1-F6) to help us determine what is the key determinant of the fear of crime among the inhabitants of Sarajevo?

Table 2: Safety feeling/ fear of crime

F0 Safety feeling	Mode	Median	Mean	Std. Deviation
Doorbell	3-don't know	3-don't know	2.78	1.08
Car	2-quite vulnerable	2-quite vulnerable	2.12	.95
Party	2-quite vulnerable	2-quite vulnerable	2.08	.99
Bus stop	2-quite vulnerable	2-quite vulnerable	2.55	1.10
Telephone	3-don't know	3-don't know	2.74	1.10
Bar	3-don't know	3-don't know	2.65	.98

Before addressing the analysis of social factors which are detrimental to the fear of crime in Sarajevo, let us take a look at how citizens there perceive public institutions (see Table 3). It is widely assumed that the trust in public institutions is an important part of peoples' general sense of security. Only 18% (95%CI: 13 to 22%) respondents in Sarajevo expressed complete or some distrust in the president, while residents of Sarajevo[2] have shown very little trust in their government with only one in eight respondents or 12.5% (95%CI: 9 to 16%) there having said that they had complete or some trust in the governments. The results summarized above were corroborated with findings related to the trust in political parties, as most citizens of Sarajevo have shown very strong mistrust for them – only 10.0% (95%CI: 7 to 13%)of respondents have full or partial trust in political parties. Participants were asked to rate their level of trust on a scale from: 1 full mistrust, 2 partial mistrust, 3 indecisive, 4 partially trust, and 5 fully trust.

Among all the public institutions participants were asked about, the police enjoyed the highest level of trust. This is perhaps the most important finding from our study because the work of the police has a direct impact on citizens' sense of security. About one-third or 38% (95%CI: 31 to 45%) of respondents voiced trust in

2 *Respondents in Sarajevo were asked about their trust in the government of the Sarajevo Canton, because government at that level has the greatest authority in the city.*

the judiciary, while two-thirds of the sample (roughly 60%) indicated they trusted the police (95%CI: 53 to 67%).

Table 3: Trust in public institutions

F1 – Trust in public institutions	Mode	Median	Mean	Std. Deviation
V13a -Presidency of the State	1- full mistrust	2 - partial mistrust	2.19	1.20
V13b - Governments	1- full mistrust	2 - partial mistrust	2.02	1.15
V13c - Political Parties	1- full mistrust	2 - partial mistrust	2.00	1.10
V13e - Police	4 - partial trust	4 - partial trust	3.48	1.25
V13f - Justice	4 - partial trust	3 - neutral	2.86	1.24

Trust in the police forms a good basis for the study of other factors which influence citizens' sense of security at the local level. In addition to the above, it is very important that citizens feel comfortable in their neighbourhood and that they trust their neighbours (Meško, Fallshore, Rep, & Huisman, 2007).

Variables used to measure the trust in public institutions are the trust in: *The Presidency (v13a), Governments (v13b), Political parties (v13c), Police (v13e) and Judiciary (v13f).* These questions were used to develop two composite measurement variables (F1.1) TRUST IN PRESIDENCY, GOVERNMENT AND POLITICAL PARTIES and, (F1.2) TRUST IN POLICE AND JUDICIARY using factor analysis (see Table 10).

Therefore, we have analysed the variables which measure the quality of life in a neighbourhood. Let us begin with a set of questions which we used in an attempt to approximate the quality of life in neighbourhoods of surveyed city. A better quality of life is determined by a number of factors which obviously also include some which had been covered by the following statements we used: *people who live in my neighbourhood can be trusted (v2), I have many friends among my neighbours (v3), there are many people in my neighbourhood on whom I can rely (v4), every day in my neighbourhood I meet many people I know (v5).* Participants were asked to rate their level of agreement with the above statements on a scale from: 1 - completely disagree, 2 – disagree, 3 – agree, 4 –fully agree. These questions were used to develop a composite measurement variable: (F2) QUALITY OF SOCIAL NETWORKS (see Table 4) using factor analysis (Table 10). One third or some 30% (95%CI: 24 to 37%) of residents in Sarajevo were somewhat mistrustful of their neighbours, and four fifths of respondents or some 79% (95%CI: 74 to 84%) meet the people they know in their neighbourhood on an everyday basis.

Table 4: Quality of social networks

F2 – Quality of social networks	Mode	Median	Mean	Std. Deviation
V2-is trustful	3 - agree	3 - agree	2.82	.79
V3-has many friends	3 - agree	3 - agree	2.77	.80
V4-relies on people	3 - agree	3 - agree	2.65	.81
V5-meets many people	3 - agree	3 - agree	3.02	.74

The quality of a neighbourhood depends on many factors that are often visible and which can leave an impression on casual passers-by. Some of the key indicators of "neighbourhood disorder" include: dirty public spaces (v6), graffiti on walls (v7), decayed buildings (v8), young people aimlessly wandering the streets (v9), public intoxication (v10), signs of vandalism (v11), beggars (v12), and a significant number of homeless individuals (v13). Participants were asked to rate their level of perception of disorder with the above statements on a scale from: 1 representing "no problem" to 4 representing a "very significant problem". In order to simplify further analysis we decided to develop another composite variable (F3) called NEIGHBOURHOOD DISORDER (see Table 5) using factor analysis (see Table 10).

Table 5: Neighbourhood Social Disorder

F3 – Neighborhood Social Disorder	Mode	Median	Mean	Std. Deviation
V6-dirty public spaces	4 - very significant problem	3 - significant problem	3.02	.87
V7-graffiti	2 - little problem	2 - little problem	2.36	.95
V8-decayed buildings	2 - little problem	3 - significant problem	2.71	1.01
V9-street young people	3- significant problem	3 - significant problem	2.97	.96
V10-street drunks	2 - little problem	3 - significant problem	2.57	.97
V11-signs of vandalism	3 - significant problem	3 - significant problem	2.75	1.03
V12-beggars	4 - very significant problem	3 - significant problem	2.83	1.02
V13-homeless	2 - little problem	2 - little problem	2.37	1.08

A significant percentage (70%) of Sarajevo respondents (95% CI: 63 to 77%) reported large quantities of litter in the streets as a major impediment to the quality of life in their town. Similarly, two of five surveyed citizens of Sarajevo, some 38.6% (95%CI: 31 to 46%), identified the presence of graffiti on the walls of

residential buildings in their neighbourhood as a major problem. The appearance of buildings and community areas can also influence citizens' opinions on the quality of life in their neighbourhood. Nearly one half of Sarajevo residents or some 56% (95%CI: 48 to 63%) believed that rundown buildings were a major problem of their neighbourhood. If we were to consult the Broken Windows Theory, we would conclude that the rundown exteriors also imply some other deviations (Wilson & Kelling, 1982). Let us now focus on the findings from Sarajevo, where 71% (95%CI: 65 to 77%) of respondents identified the presence of young people aimlessly wandering the streets as a significant problem in their neighbourhood, while the presence of street drunks and beggars in the neighbourhood were identified as significant problems by 50% (95%CI: 42 to 58%) and 63% (95%CI: 56 to 70%) of respondents respectively.

Although previous factors (variables) significantly influenced public perception of quality of life in urban areas, criminology studies have shown that respondents mostly judge how safe an area is based on how concerned they are about crime occurring in their neighbourhood on a daily basis. Therefore, we wanted to explore what impact knowledge has on fear of crime. Specifically, we explored what impact knowledge about the following occurrence of crime has: *street robberies – mugging* (v15), *fraud* (v16), *street fights* (v17), *theft* (v18), *unprovoked hurling of insults at people in the streets* (v19) and *robberies of apartments* (v20). Participants were asked to rate their level of concern with the above statements on a scale from: 1 representing "not concerned" to "5" representing very concerned. The presence of multiple types of criminal behaviours can make a neighbourhood unpleasant for living, which is why such experiences (variables) are grouped under one composite variable F4 which is called CONCERN about crime in the neighbourhood (see Table 6) using the factor analysis (see Table 10).

F4 – Concern about the crime in the neighborhood	Mode	Median	Mean	Std. Deviation
V15-mugging	5 - very concerned	4 - quite concerned	4.13	1.06
V16- fraud	4 - quite concerned	4 - quite concerned	3.67	1.19
V17-street fights	5 - very concerned	5 - very concerned	4.30	1.08
V18-theft	5 - very concerned	5 - very concerned	4.24	1.03
V19-insults	5 - very concerned	4 - quite concerned	3.52	1.33
V20-robberies	5 - very concerned	5 - very concerned	4.58	.84

Table 6: Concern about the crime in the neighbourhood– F4

A very large percentage (90%) of surveyed Sarajevo residents (95%CI: 87 to 94%) believed that street robberies were a significant problem in their neighbourhood.

A majority of respondents from Sarajevo i.e. 92% (95%CI: 88 to 95%) fear that they might become the victims of physical assault in the neighbourhoods where they live. A large percentage of respondents were also concerned about the possibility of their apartments being robbed 95% (95%CI: 93 to 97%). All the above findings point to a significant presence of conventional crime; that is, respondents' perceptions that these types of criminal activities are widespread in the municipality where they live and work.

Personal safety is also greatly dependent on the circle of friends on whom a person can relay. It is very important to have friends close by with whom one can share good and bad things brought about by a fast-paced life in a highly competitive capitalist economy. We analysed respondents' views on how likely they are: *to find a trusted person to take care of their apartment when they are away* (v48), *to have friends who are always willing to hear about their problems* (v49), *to have a group of friends with whom they often spend time* (v50), *when sick to ask friends to help them with some services when they are too ill to take care of them* (shopping etc.) (v51), *to have someone they can rely on when in trouble* (v52) and finally, *to have a wide circle of friends with whom they often socialize* (v53). The circumstances listed above are what most of us consider to be favourable and integral features of a good neighbourhood and a good life in general. Participants were asked to rate their level of agreement with the above statements on a scale from 1 representing "not agree at all" to 5 representing "fully agree". We developed another composite variable (F5) that was named CLOSE FRIENDSHIPS (see Table 7) using the factor analysis (see Table 10).

Table 7: Close friendships – F5

F5 – Close friendship	Mode	Median	Mean	Std. Deviation
V48-care of their apartment	5 - fully agree	4 - mainly agree	3.92	1.12
V49-hear of their problems	5 - fully agree	5 - fully agree	4.39	.81
V50-spend time	5 - fully agree	5 - fully agree	4.46	.78
V51-help when sick	5 - fully agree	5 - fully agree	4.34	.87
V52-relay when in trouble	5 - fully agree	5 - fully agree	4.50	.77
V53-socialize with them	5 - fully agree	5 - fully agree	4.37	.82

The respondents of Sarajevo (98%; 95%CI: 96 to 99%) have a circle of friends with whom they spend free time. Finally, people show how they perceive the quality of their life and how afraid they are for their life and their property by taking some preventive measures. Different people take different precautions including: avoiding some streets and some parts of their neighbourhood (v84), being cautious with unknown people they meet at night (v85), avoiding the use of public transport at night (v86) and finally, avoiding going out at night except when it is absolutely necessary (v88). Participants were asked to rate the frequency of these precaution measures with the above statements on a scale from: 1 representing "never" and 5 representing "always". We used the above behaviours (variables) to construct

a composite variable F6 using factor analysis which we called PRECAUTION MEASURES (Tables 8 and 10). Findings for different variables have shown that respondents of the survey avoid certain streets and parks in their neighbourhood 83% (95%CI: 78 to 88%). A high percentage of respondents in Sarajevo 82% (95%CI: 78 to 86%) walk away from strangers they meet at night. Over a half of respondents in Sarajevo or respective 59% (95%CI: 53 to 64%) believed that public transport was not safe at night.

F6 – Precaution measures	Mode	Median	Mean	Std. Deviation
V84-avoiding some streets at night	4 - frequently	4 - frequently	3.70	1.17
V85-being cautious with people at night	5 - always	4 - frequently	3.78	1.25
V86- avoiding public transport at night	3 - sometime	3 - sometime	2.95	1.40
V88-avoiding going out at night	5 - always	3 - sometime	3.37	1.41

Table 8: Precaution measures (self-protection) – F6

The fear of crime model presented below is related to neighbourhood disorder, in the widest possible sense of this term (F1-F6), in Sarajevo (Figure 1).

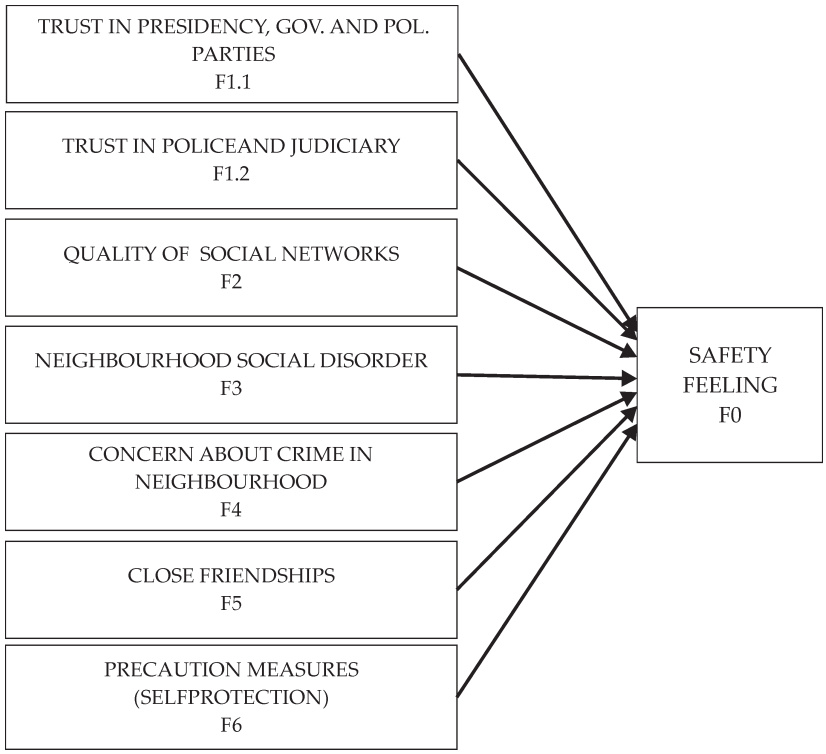

Figure 1. Model of Living Quality, Neighbourhood Disorder and Feelings of Safety

3.1. Factor and regression analysis

With the above feelings of safety (as opposed to the fear of crime) model in mind (see Figure 1), we conducted factor analyses relying greatly on the experiences from the Farrall, Bannister, Ditton, and Gilchrist (1997), and Meško and Farrall (1999) studies. For the purpose of this research, we conducted a factor analysis of the variables (s25-s30) that constructed a composite SAFETY FEELING variable (F0). The factor analysis included the overall sample for Sarajevo (see Table 9). Next, we conducted regression analysis (forced entry method) for the purpose of which composite variables (F1-F6) were observed as independent variables while CRIME - SAFETY FEELING (F0) was observed as the dependent variable. Results of regression analysis are presented in Tables 11 and 12.

Table 9: Safety feeling

Vignettes		Factor loading	Mean	Standard deviation
F1: Fear of crime (52.46 % var.); KMO=0.81; α=0.82			2.48	0.31
Doorbell (s25)	One evening you are at home on your own. It is late. The doorbell rings, but you are not expecting anyone;	0.70	2.78	1.08
Car (s26)	One evening you go to take out the garbage. On the street you see two men walking around a parked car. When they see you looking at them, they begin to walk toward you;	0.75	2.20	0.95
Party (s27)	You have been invited to a party in a neighbourhood you do not really know. Early that evening you set out by bus. When you get off you still have some way to walk. Suddenly you notice that you have lost your way. A group of youths is following you and are giving unpleasant remarks at you;	0.71	2.08	0.99
Bus stop (s28)	One afternoon, you are standing at a bus stop when a group of 15 or 16-year-olds comes along. They begin kicking the bus stop and daubing graffiti on the bus shelter;	0.75	2.55	1.00
Telephone (s2)	You are going out one evening. You are ready and just about to leave when the phone rings. You answer, giving your name. But at the other end you hear only irregular breathing. You ask who is there. They hang up;	0.71	2.74	1.10
Bar (s30)	You are in a part of town where you have never been before. You go into a bar and inside there is a group of loud speaking local males.	0.72	2.65	0.98

Cronbach's Alpha coefficient of internal consistency is high (0.82). Factor F0–Fear of crime describes 52.46 per cent of the overall variance. Factor loadings vary from 0.70 (for s25-Doorbell) to 0.75 (s28 Bus stop).

The limitation of the factor models is that the input variables are mainly non-normal Likert scales. This means that the theoretical requirements for the application of the factor model are not fully fulfilled which consecutively reduces the possibility to generalize the results of the factor analysis. In order to fully generalize the findings of the factor models, further analysis using non-parametric tools are necessary.

Table 10: Independent variables

Other variables	Mean	Standard deviation
F1.1: Trust in Presidency, Gov. and Pol. Parties (55.92% var.) F1.2: Trust in Police and Judiciary (21.06 % var.) KMO=.74; α=0.79	2.51	0.64
F2: Social Networks (63.7 % var.); KMO=0.76; α=0.81	2.81	0.16
F3: Social disorder in neighbourhoods (47.79 % var.); KMO=0.88; α=0.84	2.70	0.25
F4: Concern (about crime in the neighbourhood) (60.43 % var.); KMO=0.88; α=0.86	4.07	0.40
F5: Close friendships (56.37 % var.); KMO=0.87; α=0.82	4.33	0.21
F6: Precaution measures (self-protection) (60.2 var.); KMO=0.73; α=0.77	3.45	0.38

Cronbach's Alpha coefficients of internal consistency for F2-F6 are moderately high varying from 0.77 for F6-Precaution measures, to 0.86 for F4-Concern about crime in the neighbourhood. Factor F3-Social disorder in neighbourhoods described the lowest share or 47.79% of the common variance. Factor F2- Social Networks described the highest share or 63.7% of the common variance.

The regression model (see Table 11) has shown statistical significance at $p<0.001$ level, in that two concerns (about crime in the neighbourhood) were found to significantly influence the sense of fear: concern over crime and precaution measures.

Respondents from Sarajevo who were more concerned with frequent criminal activity such as theft, street robbery, physical assault and robbery of apartments were also more likely than other respondents there to have greater fear of crime. Fear of crime also tended to be greater among respondents in Sarajevo who take precautions in their everyday life, such as avoiding dark places and unknown people they meet at night. Results of regression analysis for the Sarajevo sample pointed to statistically significant differences in the influence of the "neighbourhood disorder" variable in the sense that respondents who consider their neighbourhoods to be in disorder also tend to be more afraid of crime. The precaution measures variable had a statistically significant influence on the intensity of the fear of crime.

Table 11: Regression Results for Significant Interaction Terms

Constant	Sarajevo		
	B	Std. Error	Beta
	0.00	0.04	
F1.1: TRUST IN PRESIDENCY, GOV. AND POL. PARTIES	0.05	0.04	0.05
F1.2: TRUST IN POLICE AND JUDICIARY	0.01	0.04	0.01
F2: SOCIAL NETWORKS	0.00	0.04	0.00
F3: NEIGHBOURHOOD SOCIAL DISORDER	–0.05	0.04	–0.05
F4: CONCERN OVER CRIME	–0.26***	0.05	–0.26***
F5: FRIENDSHIPS	0.04	0.04	0.04
F6: SELF-PROTECTION	–0.41***	0.04	–0.41***

Dependent variable: F0 – "Safety feeling"; *** $p<0.001$; $R^2=0.34$; N=400

Table 12: Regression analysis – socio-demographic model

Total (N=400)	
Independent variables[3]	Beta/sig.
Gender (Woman)	–.63/***
Age 36 to 55	–.33/***
Position in the labour market (Retired)	–.42/***
Religious	–.38/***
Never performed any religious activity	–.35/***
	R^2 =.21

Dependent variable: Fear of Crime, Constant 0.82***
N=400. Significance ***0.001, **0.01, *0.05[3]

The regression model, including socio-demographic variables shows that women, middle age people, retired, religious and people who never performed any religious activity have lower safety feelings or greater fears of crime. Most studies on fear of crime show that women are more fearful than men (Meško & Farrall, 1999; Perkins & Taylor, 1996; Wyant, 2008).

Women usually have a greater fear of crime because of their physical disposition as crime is often connected with physical violence and rape, than because of their education and gender role of women in society. Middle aged people have higher fear of crime because this is the period of the life with highest income and the gender role of the protector of the family for man and the gender role of protector of children for the women. Retired people have higher fear of crime mainly because of the physical violence coming with crime and inability to defend themselves against criminals. Another possibility is that they feel enabled to recover from the financial consequences of the crime. Religious people have a higher level of fear because fear of God and fear because of committed sins (personal but as well as the

3 *Only independent variables (factors) on the 0.05, 0.01 or 0.001 significance levels are included in the table.*

perception of sins committed within the community) is part at least of Islam as the dominant religion in Sarajevo. People who never performed any religious activity usually are more disconnected from the local community as they do not participate in local religious services.

4 CONCLUSION

Because citizens of Sarajevo show the greatest fear or crime, it stands out among the capitals cities in the former Republic of Yugoslavia. Responding to six situations (see Table 2), the citizens of Sarajevo have shown a great sense of vulnerability. These results confirm the findings of two earlier studies conducted in 1999 and 2008 (see Meško & Kovčo, 1999) and (Meško et al., 2008). The common Neighbourhood Disorder and Fear of Crime Models (see Scheme 1) have shown that in Sarajevo well-developed social networks have a significant impact on feeling safe in one's own neighbourhood. This does not come as a surprise considering that the people in post-socialist societies are traditionally more reliant on their family and friends. On the other hand, the high frequency with which crimes are being committed in urban centres in Europe greatly influences the fear of crime felt by residents of large European cities. Not only the registered crime rate, but also the so-called "dark figure" of crime influence the public's sense of security. Thus, it is not surprising that public concern with crime is a corrective factor which influences and increases the fear of crime among our respondents. However, residents of Sarajevo have great tendency to mention everyday crime as one of the factors which feed their fears. Since some of our findings had been partially interpreted in the above chapters, the conclusion will include only a brief overview of some factors influencing the public fear of crime in Sarajevo. The situation in Sarajevo is not good as only one fifth of respondents there had positive opinion or trusted their public institutions (presidency, government and judiciary). The only exception to this was the police as police forces in all city parts enjoyed trust of more than a half of respondents. In conclusion, we can also say that the people in Sarajevo who do not take more precautions tend to be more afraid of crime. The above finding is not surprising. Respondents in Sarajevo have a general tendency to say that their neighbourhoods are full of poorly maintained public spaces and littered with garbage, but this variable did not influence them in a way to make them more scared for their safety. Interestingly socio-demographic model pointed out religion as additional dimension of the fear of crime in community. The above findings set the ground for further research in the great "socio-pathological market", as the Western Balkans are being described in the reports of the official EU bodies. There is no doubt that case studies in the cities of the former Yugoslavia represent an interesting and useful approach.

REFERENCES

Bannister, J. (1993). Locating fear: Environmental and ontological security.In H. Jones (Ed.), *Crime and the urban environment* (pp. 69-84). Aldershot: Avebury.

Farrall, S., Bannister, J., Ditton, J., & Gilchrist, E. (1997). Questioning the measurement of the fear of crime: Findings from a major methodological study. *British Journal of Criminology, 37*(4), 657-678.

Jackson, J. (2006). Introducing fear of crime to risk research. *Risk Analysis*, *26*(1), 253-264.

Jackson, J. (2011). Revisiting risk sensitivity in the fear of crime. *Journal of Research in Crime and Delinquency*, *48*(4), 513-537.

Meško, G., Fallshore, M., Muratbegović, E., & Fields, C. B. (2008). Fear of crime in two post-socialist capital cities - Ljubljana, Slovenia and Sarajevo, Bosnia and Herzegovina. *Journal of Criminal Justice, 36*(6), 546-553.

Meško, G., Fallshore, M., Rep, M., & Huisman, A. (2007). Police efforts in the reduction of fear of crime in local communities: Big expectations and questionable effects. *Sociologija. Mintisirveiksmas, 2*(20), 70-91.

Meško, G. & Farrall, S. (1999), The social psychology of the fear of crime: A comparison of Slovenian, Scottish and Duch Local Crime Surveys. *Hrvatska revija za rehabilitacijska istraživanja, 35*(2), 141-149.

Meško, G., Hirtenlehner, H., Bačanović, O., Djurić, S., KovčoVukadin, I., & Muratbegović, E. (2009). The connective links between victimization and fear - testing a theory of psychological incapacitation in the capital cities of the former Yugoslav Republics. In *Criminology and crime policy between human rights and effective crime control: book of abstracts, 9th Annual Conference of the European Society of Criminology* (pp.168). Cambridge: The European Society of Criminology.

Meško, G., & Kovčo, I. (1999). Strah pred kriminaliteto v Sloveniji in Hrvaški. *Varstvoslovje*, *1*(2), 26-30.

Perkins, D., & Taylor, R. (1996). Ecological assessments of community disorder: Their relationship to fear of crime and theoretical implications. *American Journal of Community Psychology*, *24*(1), 63-107.

Skogan, W., & Maxfield, M. (1981). *Coping with crime.* Beverly Hills: Sage.

Van der Wurff, A., Van Staalduinen, L., & Stringer, P. (1989). Fear of crime in residential environments: Testing a socialpsychological model. *Journal of Social Psychology*, *129*(2), 141-60.

Warr, M. (2000). Fear of crime in the United States: Avenues for research and policy. In D. Duffee (Ed.), *Criminal justice 2000: Measurement and analysis of crime and justice* (pp. 451–489). Washington: U.S. Department of Justice.

Wilson, J. Q. & Kelling, G. (1982). Broken windows: The police and neighbourhood safety. *Atlantic Monthly*, *249*(3), *29–38*.

Wyant, B. R. (2008). Multilevel impacts of perceived incivilities and perceptions of crime risk on fear of crime isolating endogenous impacts. *Journal of Research in Crime and Delinquency, 45*(1), 39-64.

About the Authors:

Elmedin Muratbegović, Ph.D. is Associate Professor of Criminology at the Faculty of Criminal Justice and Security, University of Sarajevo, Bosnia and Herzegovina. His research interest consists of crime control and prevention, criminological prognosis, spatial analysis of crime and fear of crime. E-mail: emuratbegovic@fknbih.edu

Fahrudin Memić, B.Sc. in Mathematics is Visiting Lecturer at the Faculty of Criminal Justice and Security, University of Sarajevo, Bosnia and Herzegovina. His research interests consist of analysis of socio-economic surveys including crime and health surveys, analysis of social impact and poverty analysis. E-mail: fmemic@gmail.com