

Gendered perceptions and socio-economic and spatial determinants of fear of crime: an empirical analysis in Szczecin, Poland

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Abstract. The study of the fear of crime phenomenon provides a socially and politically important research question. Many studies show that gender differentiates the fear of crime, which is why we examine this phenomenon in a spatial perspective. The female versus male perspective of feelings of safety in residential areas were significantly different. The research was carried out using the CAWI technique in the city of Szczecin, in Poland (n=346). The research also examined which factors influenced the fear of crime the most: darkness, socio-economic characteristics, type of violations, number of registered crimes, or the assessment of police work. The research shows that women aged 19–25 are the group that reports the highest fear of crime. They are generally better educated, work or study, but often come from peripheral rural areas, and their current place of residence is little known. Activities aimed at building a sense of security in local communities should therefore be addressed to a wide demographic spectrum of recipients, but with emphasis on young females. A very interesting result from the research is the relationship between fear of crime and the opinion of residents about the effectiveness of police work, where the study reports that the better the assessment of police work, the lower the fear of crime.

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1. Introduction

The greatest boom in the fear of crime research took place in the late 1970s and early 1980s. The results of this research systematically showed that residents feared for their safety mostly due to criminal events. In an attempt to reduce residents' exposure to the perceived fear of crime, they tried to avoid risk. The most important finding of this research was that the "fear of crime" contained a contradiction: social groups that were reported to be less likely to be victims of crime had a greater fear of crime than those that were at higher risk (Hale, 1996).

The fear of crime was expected to decline as crime declined, but it turned out that the fear of crime did not fall at the same rate as crime did. Between 1999 and 2000, the number of crimes reported to the British Crime Survey fell by 12%. However, reported levels of the fear of crime decreased only slightly, and among some groups, over 50% of respondents thought that crime had increased during this period (Kershaw et al., 2001).

The level of crime depends on the characteristics of the community, in accordance with the assumptions of the theory of social disorganization (Shaw & McKay, 1942). More specifically, these assumptions refer to the relationships that occur between the place of residence of specific social groups (the type of neighborhood) and the effectiveness of local institutions in regulating the social behavior of both residents and visitors (Wikström et al., 2013). An important role is played by the condition of social ties in individual neighborhoods, expressed, among others, by shaping social ties in local communities, residents' participation in local community life, and the ability of the community to control the behavior of teenagers, especially those aged 13–17. The level of social disorganization is directly related to the level of crime and offenses, which are dependent on socio-economic status, neighborhood mobility, level of ethnic heterogeneity, the size of family disruption, and level of urbanization (Shaw & McKay, 1942).

Neighborhood communities are generally created by young men who have lived there since birth, usually working in lower positions, which results from the still high level of economic emigration from Poland. Another important group are the elderly, including the retired, who have known their

neighborhood community and the risks associated with it for years. In Polish cities, an important group among the young (aged 18–25) are women, usually single, who came from peripheral rural areas to work or study. Their social ties in the current place of residence are weaker. But does this affect the level of fear of crime they feel?

The above arguments prompted research on the phenomenon of fear of crime with regard to the gender and age of respondents. The research area, the large city of Szczecin, Poland, is representative of Poland's larger cities in terms of demographic, economic, and social features. However, Szczecin has numerous distinguishing features and, in addition, is already well researched in terms of the level, structure, and distribution of crime. In this fear of crime research in Szczecin, the survey method was used.

2. Literature review

Over the past two decades, research on various aspects of fear of crime has become very popular (Schafer et al., 2006; Butler & Cunningham, 2010; Ergun & Yirmibesoglu, 2011; Mayoyo et al., 2011; Jabkowski & Kilarska, 2013; Mordwa, 2013; Poprawski, 2016; Chataway & Michael, 2018; García-Castro & Perez Sanchez, 2018; Pánek et al., 2019; Ceccato & Meško, 2021). Fear of crime is widely recognized as an important social and political issue (Jackson, 2009; Mordwa, 2011), especially important for decision makers and municipalities that can solve these problems (Pánek et al., 2019). The phenomenon affects the quality of life of the inhabitants in a given area, and it is an important factor to consider when choosing a place to live and bring up children (Jacobs, 1961; Christmann et al., 2004; Jabkowski, 2008; Jabkowski & Kilarska, 2013; Bogacka & Sieniecka, 2016).

The study of crime and the key concept of fear of crime date back half a century (Garofalo, 1981; Hale, 1996). Initially, this term was used to generally describe the fear of individuals and social groups of becoming a victim of crime. But as many writers recognized, fear of crime is an inadequately theorized concept. Scott (Scott, 2001: 30) reviewed

the conflict between the terms “fear” and “feeling” and argued that there is a definite “lack of consensus among scholars of what fear of crime actually means”.

Fear of crime, in general terms, can be described as a feeling of “fear” and “insecurity” derived from a person sensing his or her personal security to be under a threat (De Donder et al., 2005: 373). Research findings are enhanced by a qualitative analysis that determined that fear of crime is a feeling (Tandogan & Ilhan, 2016). Ward and his fellows (Ward et al., 1986) define fear of crime as a sense of security and/or feelings of vulnerability. Sacco (1993) defines fear of crime as a form of psychological disorder reducing quality of life, restricting access to social and cultural activities, and impairing social interaction within a community. Empirical studies of fear of crime were conducted that asked questions about feelings of safety (Ferraro & Grange, 1987; LaGrange et al., 1992; Miethe & Lee, 1984; Nofziger & Williams, 2005). Such an approach has become a standard in social awareness surveys in the USA (*General Social Survey*, 2023; *National Survey of Crime and Safety*, 2023). Summing up, the examinations of studies of fear reveal that this literature has primarily measured feelings of safety from risk of personal victimization. It was assumed in all these studies that the lower the feelings of being safe, the higher the fear of crime.

At the same time, however, in the 1980s, a discussion began on the internal diversity of the meaning of the term “fear of crime” and its connection with other terms and concepts in criminology, sociology, and psychology (Hale, 1996). It did not lead to satisfactory conclusions, and as a result, empirical research continued to ask questions about the fear of crime. As part of this discussion, however, there were proposals to interpret this concept within theoretically grounded sociological and psychological approaches. As a result, fear of crime came to be understood as multidimensional (Ute & Werner, 2003). Another proposal concerns the introduction of the overriding concept of threat of victimization, containing three components: fear of crime, perceived risk, constrained behaviors. In this perspective, threat of crime is an emotion resulting from perceived threat of victimization, which is different from a concern over safety, meaning perceived risk (Rader, 2004).

Fear is a natural, physiological state of warning towards a threat, and it can be accompanied by feelings, such as anger, frustration, and helplessness. Fear of crime, on the other hand, is focused on the threat to security, the fear of specific crimes

that may lead to victimization (Van Velzen, 1998; Mayoyo et al., 2011). Another definition of fear of crime describes it as the belief that a person may be the victim of a crime (Ferraro & Grange, 1987). In other words, it is a subjective assessment of the risk of becoming a victim of crime. Fear of crime limits our freedom to use a space, we avoid certain areas where we do not feel safe and where we do not want to be because of concerns about our safety. However, there are areas where we do not feel safe but have to use the space. In such a situation the fear of crime significantly reduces quality of life, makes us walk faster than usual at night, and results in us putting extra effort into properly securing our property (Anderson, 1999; Jackson & Gray, 2010). In other circumstances, the fear of crime may even force us to take a longer but safer route. For example, we may opt to walk around a park instead of through it.

Fear of crime is a common social problem, with (social) media playing a significant role in both the perception of this problem and the link between fear of crime and victimization. The level of fear of crime depends on one's awareness of crime, personal vulnerability, the likelihood of victimization, and the situational and social experiences of individuals (National Crime Council (Ireland), 2009). Fear of damage to property depends partly on age. Younger people, who have less property to be damaged, and younger people who are more confident in their ability to deal with crime or victimization have less concern about damage to property than do older people, who have more wealth and less confidence in their ability to defend their assets (National Crime Council (Ireland), 2009). In the United States, the vast majority of home burglaries (~60%) occur during the day during the working week when home occupants are away (Clarke, 2002). This phenomenon is generally attributed to the increase in the number of women working outside the home. In 1961, ~16% of home burglaries of apartments took place during the day, whereas by 1995, the percentage of daily burglaries had increased to 40% (Sampson, 2009). In the UK, however, the situation is different, with almost 60% of home burglaries taking place at night when it is dark (M. S. Scott, 2002).

The fear of crime is influenced by many factors. The most surprising fact is that it is generally not influenced by the actual number of crimes committed in a given city or country and does not change due to preventive actions taken by the relevant services (Prieto Curiel & Bishop, 2017). In any given year, more people feel the fear of crime than the number of people that can actually become a victim of crime

(Hale, 1996; Warr, 2000). In the United States, the level of security has not changed despite the decline in violent crime over the past twenty years (Criminal Justice Information Services Division, 2018; Morgan & Oudekerk, 2019). The situation is similar in other countries, but despite the decrease in the number of crimes, the level of fear of crime did not record a corresponding decrease (Farrell et al., 2011; Pease & Ignatans, 2016). Another factor that significantly influences the fear of crime is past victimization experiences, which almost double the fear of a given individual (Tseloni, 2007). The experience of indirect victimization is another very common factor, consisting of violence in friendly relationships, improper relations with neighbors, or through the media (Gilchrist et al., 1998).

The results of studies on the relationship between victimization and fear of crime are contradictory, with some research showing a clear relationship between the two (Skogan, 1987; Liska et al., 1988) while other studies have found no relationship between them (Hale, 1996; McGarrell et al., 1997). It is surprising that people who are aware of victimization of others have almost the same level of fear of crime as the actual victims (Skogan, 1986). Other research results (Chiricos et al., 2000) showed that the media and reports from friends play a greater role in creating fear of crime than does being a victim of it.

If several individuals do not feel safe in a given place, it does not mean that they are afraid of the place for the same reasons, or that the severity of their fear is the same. The fear of crime is influenced by many factors, with the two most frequently mentioned being age and gender (Bilsky & Wetzels, 1997; Marcińczak & Siejkowska, 2004; Jabkowski, 2008; Carro et al., 2010; Brunton-Smith & Sturgis, 2011). Another factor is the income level, as less affluent social groups experience a greater level of fear of crime (Kinsey & Anderson, 1992; Mirlees-Black et al., 1996). The condition of the neighborhood and the existence of visible signs of vandalism are also of great importance (Pantazis, 2000; Tseloni, 2007). In neglected neighborhoods, fear of crime limits social ties, which increases the sense of being threatened (Palmer et al., 2005). Americans are generally afraid to walk in the vicinity of their place of residence after dark, with the numbers being almost the same as in the early 1990s (Gallup, 2007). Tidy and quiet places are positively correlated with the feeling of security (Ziersch et al., 2007).

Crime-related fear is also generated by antisocial behavior that can be observed in public spaces. Various physical and social disorders lead to an

increased sense of danger through the loss of social order (LaGrange et al., 1992; Perkins & Taylor, 1996; Kanan & Pruitt, 2002; Robinson et al., 2003; McCrea et al., 2005; Wyant, 2008). Public space also greatly influences the sense of security, as uncertainty increases by graffiti, rubbish left on the street, and unused cars, for example. In the public space, one can also observe fear-provoking behaviors, such as violence, alcohol consumption, and sale of drugs (Brunton-Smith & Sturgis, 2011).

Women and the elderly are the two most frequently examined groups in research on crime-related fear. The studies show that women are more worried than men about safety (Pain, 1995; Killias & Clerici, 2000; Kanan & Pruitt, 2002; Scott, 2003; Schafer et al., 2006; Ergun & Yirmibesoglu, 2011; Özascilar, 2013; Sham et al., 2013; Tulloch, 2000; Köseoğlu, 2021) for two main reasons: they feel weaker and less able to defend themselves, and they assess the likelihood of victimization for themselves and their social group as much higher (Jackson, 2009). Women and the elderly most often report a higher level of anxiety than men, as well as fear of walking alone in the city after dark (Christmann et al., 2003), despite being social groups with a lower risk of victimization compared to other social groups. This phenomenon is referred to as the fear-victimization paradox (Eve, 1985; Sacco, 1990; Fattah, 1993; Skogan, 1993). On the other hand, there are also studies that show that gender has little or no effect on fear of crime (Stanko & Hobdell, 1993; Newborn & Stanko, 1994; Gilchrist et al., 1998; Dammert & Malone, 2004). Other studies of older people found that the higher the social support, the lower the fear of crime, and among retired people the higher the fear of robbery and burglary, the lower the feeling of being safe (Sundeen & Mathieu, 1976). Another study among elderly persons who had been victims of crime found that they fear re-victimization and therefore feel less secure in their neighborhood (Craig, 2018).

There are also studies of men's fear of crime, which indicate that it is interpreted in a completely different way. Moore and Breeze (Moore & Breeze, 2012) posed in their study the problem of paradoxically higher level of fear of crime, namely physical assault among men compared to women when using public toilets. In order to explain this phenomenon, they turn to highly theoretical psychological and sociological concepts. As a result, they conclude that public toilets are "landscapes of fear" for men, a concept introduced by Tuan (1979). For men, public toilets are places where normal interpersonal relationships are disturbed, where they are observed from intimate situations,

and where spatial arrangement is conducive to a sense of threat. This work points out that in certain situations there is a temporary suspension of the usual gender hierarchy in the context of fear of crime.

The purpose of this study is to verify whether the fear of crime in one's residential area depends on gender in the Polish city of Szczecin. To help achieve this goal, the following research questions are formulated: Do the residents of Szczecin feel safe in the vicinity of their residence place, including after dark? Do women or men experience a higher fear of crime? To what extent do the socio-economic characteristics of the respondents differentiate the level of crime-related fear? What are local residents most afraid of? Is fear of crime spatially differentiated and does it depend on the number of crimes committed in individual city districts? Does the assessment of the police work impact the individual's fear of crime?

3. Study area

The city of Szczecin is a large Polish city with currently about 400,000 inhabitants. It is the capital city of the zachodniopomorskie region, with some features of metropolization and suburbanization. Compared to eight other similarly-sized cities in Poland that include Kraków, Łódź, Wrocław, Poznań, Gdańsk, Bydgoszcz, Lublin, and Katowice, Szczecin lies in about the middle according to numerous economic and social indicators, as well as regarding the crime rate (City of Szczecin, 2021; *Statistisc Poland, Local Data Bank* (BDL), 2023). Therefore, Szczecin can be considered as a representative city of large and similarly sized cities in Poland.

The choice of Szczecin as the study area for this fear of crime research is primarily justified by the current state of knowledge about crime, its distribution, and its conditions (Sypion-Dutkowska & Leitner, 2017). Other reasons for taking up this topic include a significant increase in the level of common urban crime as a result of the dramatic post-communist transformation in the 1990s in Poland more broadly, and in Szczecin in particular. These transformations include: organized systemic transformations, such as those related to deriving income from prostitution and trafficking of women, the consolidation of the "bad districts" in the social awareness while the City Center district (which objectively concentrates most crimes) is perceived as relatively safe; close proximity to Germany and Scandinavia, which constantly affects the customs

and identity of the inhabitants of Szczecin, e.g. low support for the Catholic Church; and the presence of active and independent young women and men studying or working, who come from poor neighboring regions with few and completely different crime threats compared to Szczecin.

4. Materials and methods

The study was conducted using the quantitative method based on data collected from an online survey (Appendix 1). The online survey was used to obtain information from respondents. Data from structured survey questions were analyzed using descriptive and associational statistical analysis. The non-probability sampling (convenience sampling) method was used. A sample of 346 adult respondents was collected. The main part of the research was conducted between October 16, 2018, and January 6, 2019 (only three questionnaires were obtained after this period), using the Computer-Assisted Web Interview (CAWI) technique. Respondents were informed about the scientific purpose of the study, about their voluntary participation in it, and about the anonymization of the obtained data to be used. The authors of the study made every effort to eliminate possible ethical problems and issues that would undermine the accuracy or reliability of the collected data. During the research, no technical problems were found that would undermine the quality of the obtained data or the achieved results. Because of the chosen sampling design (i.e., convenience sampling), the selected sample is not necessarily representative of the population of Szczecin. Specifically, results of this research are biased towards females and highly educated citizens with good economic status. For this reason, caution should be made when interpreting the presented statistics and generalizing the results of this research.

In Table 1 important characteristics of the respondents are presented and include gender, age, education, status on the labor market, assessment of personal financial situation, and district of residence. The percentage structure of individual answers was calculated. In order to determine the representativeness of the conducted research for the entire population of Szczecin, corresponding values were also calculated for the entire city, using mainly the data and studies of Statistics Poland (*Statistisc Poland, Local Data Bank* (BDL), 2023) and the Report of Szczecin City Hall for the years 2020–2022 (City of Szczecin, 2021). The age variable was analyzed twofold, including using the age group

“41 years and higher” and “age 41–65”. The size of the student population, number of retirees, and the unemployed population were estimated on the basis of various sources. Due to the type of data, the general population of Szczecin, which is compared to the survey result statistics, ranges from 261,000 to 402,000 people.

As a result of calculating the differences between the percentage structure indicators of the studied features, it is possible to determine which of them reflect the situation in the city better and which do not. Only significant differences (30 percentage points and higher) in determining the over-representativeness/under-representativeness of the

Table 1. Comparison of socio-demographic characteristics of the sample structure (n = 346) and the entire study area

Socio-economic characteristics	Sample		Szczecin (2020-2022)		Difference between survey and Szczecin
<i>Gender</i>	n_i	%	n_i	%	Difference in percentage points
Female	233	67	206,725	53	14
Male	113	33	186,303	47	-14
Total			393,028	100	0
<i>Age</i>	n_i	%	n_i	%	Percentage points
19–25 years old	142	41	44,812	13	28
26–40 years old	162	47	82,801	24	23
41 and above	42	12	220,310	63	-51
Total	346	100	347,923	100	0
<i>Age version without >65 years old</i>	n_i	%	n_i	%	Percentage points
19–25 years old	142	41	44,812	17	24
26–40 years old	162	47	82,801	32	15
41–65 years old	42	12	133,645	51	-39
Total without >65	346	100	261,258	100	0
<i>Education</i>	n_i	%	n_i	%	Percentage points
Basic and vocational	15	4	88,3	22	-18
Secondary	107	32	207	51	-19
Higher	224	64	106,7	27	37
Total	346	100	402	100	0
<i>Status on the labor market</i>	n_i	%	n_i	%	Percentage points
Working professionally	224	65	123,189	47	18
Pupil, student	100	29	30,000	12	-17
Retired, unemployed	22	6	107,666	41	-35
Total	346	100	260,855	100	18
<i>Assessment of the financial situation:</i>	n_i	%	n_i	%	Percentage points
Good	187	54		11	43
Average	149	43		56	-13
Bad	10	3		33	-30
Total	346	100		100	
<i>Residential district:</i>	n_i	%	n_i	%	Percentage points
North	66	19	58,132	14	5
Right-Bank	26	8	81,869	20	-12
City Centre	95	27	117,898	30	-3
West	78	23	116,288	29	-6
No data	81	23	28,250	7	16
Total	346	100	402,437	100	

Source: Own elaboration

survey statistics in relation to the population of Szczecin are discussed next.

Significantly over-representative variables in the survey statistics include good assessment of financial situation, ages 19–25 and 26–40, and higher education. Significantly under-representative variables in the survey statistics include age over 41 and 41–65, being a pensioner, retiree or unemployed, and poor financial situation. Other percentages differ to a lesser than 30 percentage points between survey statistics and official city statistics, especially those relating to the district of residence. The above discussion shows that the conducted research reflects to a greater extent the fear of crime of well-off, young, and highly educated people, and to a lesser extent the elderly, unemployed, and poor. This should be considered when interpreting the results. This is also the result of the adopted survey method. It is noteworthy that the distribution of respondents is very consistent, perhaps with a slight under-representation of the Right-Bank district.

Crime data were recorded and provided by the City Police Department of Szczecin for the year 2017. The following types of crime were analyzed (total number of crimes in parenthesis): fights (778); car thefts (154); car break-ins (391); thefts (3,751); drug crimes (794); robbery crimes (68); property damages (730); other facilities burglary (799); apartment burglary (151); and commercial facility burglary (30). In total, data on 7,646 crimes were collected and analyzed. Data on crime from 2017, i.e. from the year preceding the survey, were used, because the city's residents, including respondents, received information about the size of crime in the

city through the media. For this reason, respondents often associated their fear of crime experience to published reports and press releases. The population data were retrieved online from Statistics Poland's Local Data Bank. In 2017, there were 403,883 people registered in Szczecin. Some analysis was conducted at a sub-city scale in four districts making up the City of Szczecin (Fig. 1).

5. Results

One of the main research problems relates to the crime-related fear of the Szczecin residents. For this purpose, two ordinal variables (dependent variables) concerning safety in the vicinity of one's place of residence and safety in the vicinity of one's place of residence after dark (*Note 1*) were used. The obtained results are presented in Table 2.

The results clearly show that the vast majority of residents feel safe in their neighborhood. Almost 85% of females and 90% of males, answered “definitely yes” or “probably yes” to the question “Do you feel safe around your place of residence?” Definitely more males (5.31%) than females (1.27%) do not feel safe (answering “definitely not”). Considering the answers “probably not”, the percentage of people feeling fear of crime rises to 12.02% for females and 8.85% for males. Therefore, it remains unclear how gender differentiates the level of perceived fear of crime. Males dominate in the group of people declaring a fear of crime. However, among people declaring concerns at a lower level (answers “probably not”), females predominate. We try to examine and clarify the situation further by creating an index that aggregates both responses. The index has been standardized, so that a value of 0 is the lowest level of threat, and 12 is the highest (*Note 2*). The F-test confirmed the homogeneity of the index variance for both genders (p -value=0.057, F =1.29). Student's t-test with the assumption of homogeneity of variance shows a statistically significant difference (p -value=0.039, df =344, t Stat=-2.07) between the obtained mean indexes for females (mean=4.50) and males (mean=3.82). Therefore, it should be assumed that females report a crime-related fear in their place of residence more often than males.

The education variable differentiates the respondents only to a small extent. Fewer than 10% of people with higher education report a fear of crime (answers “probably not” and “definitely not”). Regarding people with secondary education, this fraction is 12%. This difference can be largely explained by the age variable of the participants.

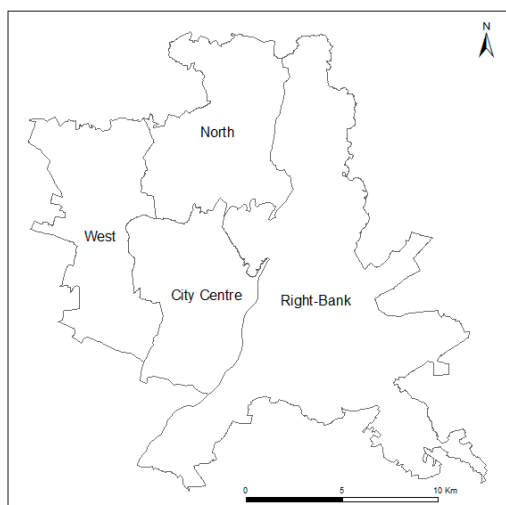


Fig. 1. City of Szczecin districts

Table 2. Feeling of security in the vicinity of one's place of residence (n = 346)

Questions:	Answers:	Female	f-frequency cumulative	Male	m-frequency cumulative
Do you feel safe around your place of residence?	Definitely yes	25.75%	25.75%	37.17%	37.17%
	Probably yes	58.80%	84.55%	53.10%	90.27%
	Hard to say	3.43%	87.98%	0.88%	91.15%
	Probably not	10.30%	98.28%	3.54%	94.69%
	Definitely not	1.72%	100.00%	5.31%	100.00%
Do you feel safe around your place of residence after dark?	Definitely yes	10.30%	10.30%	21.24%	21.24%
	Probably yes	53.22%	63.52%	55.75%	76.99%
	Hard to say	6.01%	69.53%	0.89%	77.88%
	Probably not	18.45%	87.98%	9.74%	87.61%
	Definitely not	12.02%	100.00%	12.39%	100.00%

Source: Own elaboration

Comparing the two most numerous age groups in the study, the older one (26–40 years) declares a fear of crime less frequently (10.49%) than people in the 19–25 age group (12.68%). This difference increases when we consider labor market status as the key explanatory variable. Pupils and students are more likely to indicate a crime-related fear (15.00%) than those working professionally (8.93%).

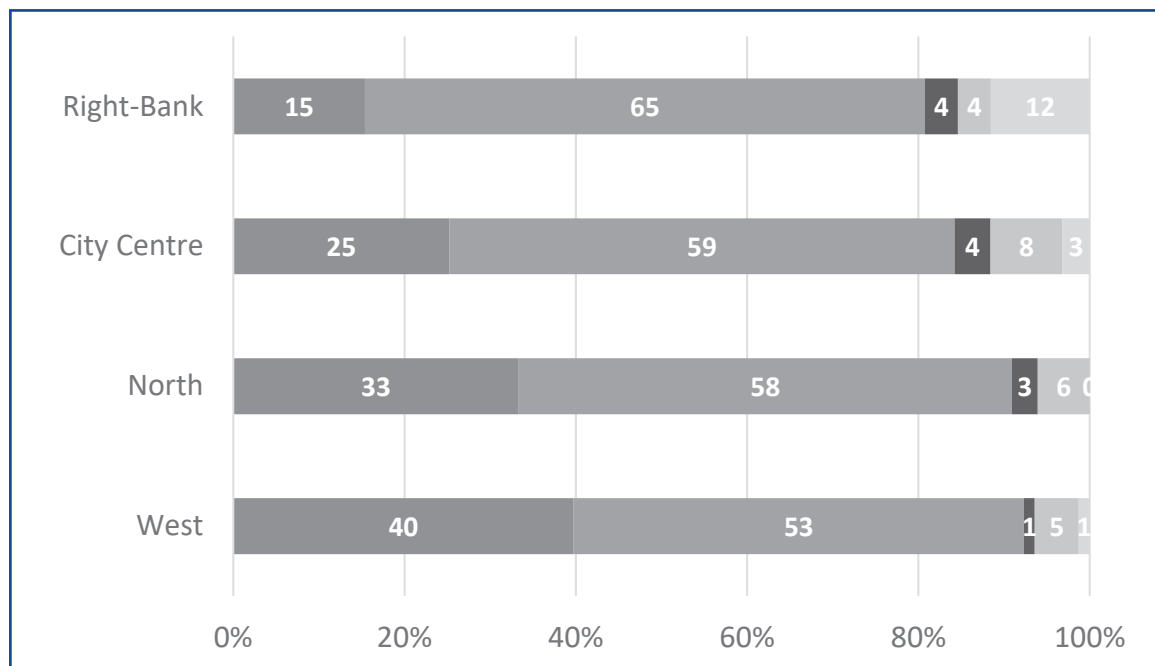
Another indicator of the crime-related fear was based on the question “Do you feel safe around your place of residence after dark?” This variable differentiates the respondents more strongly than the previous indicator and reports a higher number of negative answers. Over 30% of females and 22% of males feel a fear of crime after dark (answers are “probably not” and “definitely not”). Considering the age categories, it should be noted that the fear of crime after dark is again reported more often by younger respondents. In the 19–25 age group, 16.9% of respondents answered with “definitely not”; in the 26–40 years old category, similar answers were given by 8.64% of participants; and in the age category of 41–65 years old, the “definitely not” option was selected 10.26% of the time. These statistics are consistent with the results when we use education as the independent variable. Answering the question whether residents feel safe in their place of residence after dark, respondents with secondary education (and therefore often young people who have not yet completed their studies) more often selected “definitely not” (15.89%) than people with higher education (10.71%). These results also coincide with the distribution of crime-related fear mapped on the basis of the independent variable “status in the labor market.” Professionally working individuals answered with “definitely not”

only in 8.04% of cases, while for pupils and students the ratio is 21.00%.

The distribution of fear of crime also depends on the place of residence, i.e., the city district (Figs. 2 and 3). The difference is especially obvious when we ask respondents about the sense of security after dark. To the question “Do you feel safe in the vicinity of your place of residence after dark?” (see Fig. 3), the answer “definitely not” is given (aggregated answers in parentheses “definitely not” and “probably not”) by 19.23% (46%) of the Right-Bank residents, 13.68% (28.42%) of the City Centre inhabitants, 9.09% (22.72%) of the North district population, and 6.41% (20.51%) of the West district inhabitants.

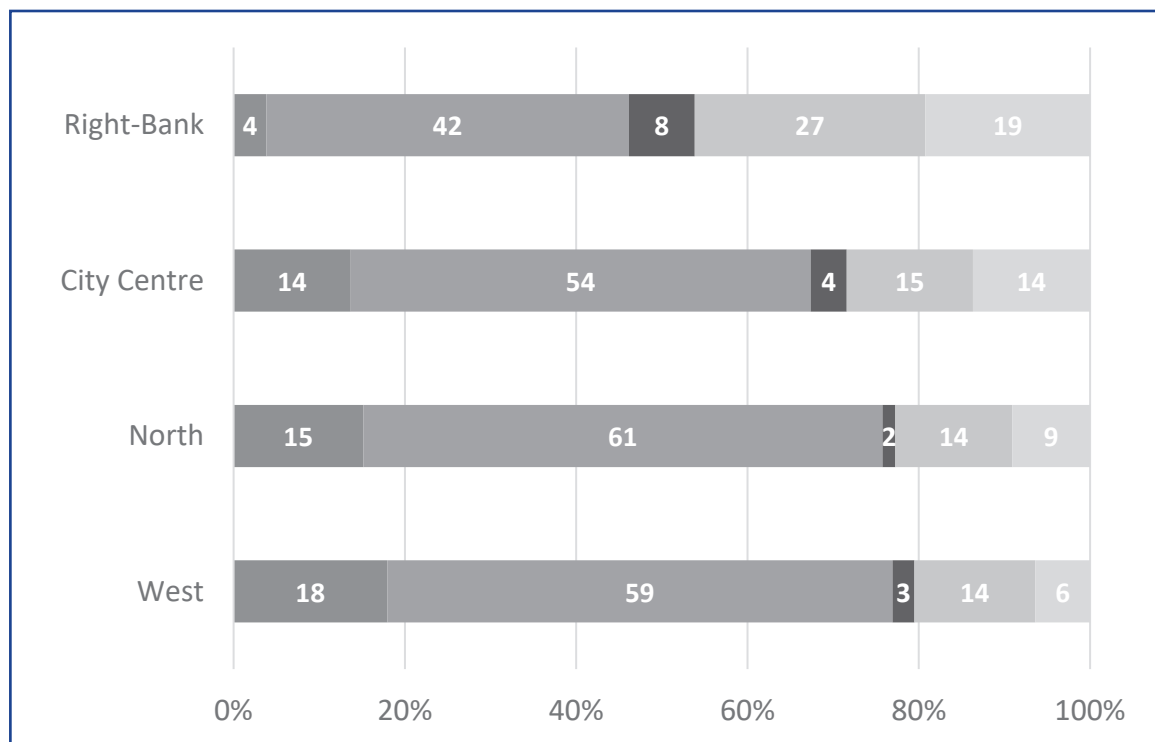
The indicated spatial differentiation cannot be explained by the variable “status in the labor market.” The analysis of the sample structure shows that, in the West district, the relative frequency of pupils and students was higher than in the sample fractions in the remaining three city districts. This value did not entail a higher level of fear of crime, meaning that the variables “status on the labor market” and “district” separately (independently) determine the level of the reported crime-related fear. If the variable of the perceived fear of crime in the vicinity of one's place of residence after dark was a quantitative (and not ordinal) variable, it could explain the unique variance by the two independent variables indicated above.

The fear of crime level in one's neighborhood after dark is not related to the number of crimes committed per 1,000 inhabitants (Fig. 4). In the Right-Bank district, the number of crimes per 1,000 inhabitants was 16.1%, which was less than half that of the City Center (33.1%), while the fear of crime was twice as high. On the other hand, in



■ Definitely yes ■ Probably yes ■ Hard to say ■ Probably not ■ Definitely not

Fig. 2. Fear of crime in the vicinity of one's place of residence in the four districts of the city of Szczecin



■ Definitely yes ■ Probably yes ■ Hard to say ■ Probably not ■ Definitely not

Fig. 3. Fear of crime in the vicinity of one's place of residence after dark in the four districts of the city of Szczecin

the City Center district there were more than twice as many crimes per 1,000 inhabitants than in the North (13.3%) and the West (15.0%) districts, while the level of fear of crime is similar in these three districts. Although in the City Centre the crime rate per 1,000 inhabitants is by far the highest, the level of perceived fear of crime in the City Center is lower than in the Right-Bank. The very low value of the determination coefficient (R^2) indicates that the variable “number of crimes” (objective index) does not explain the variable “sense of fear of crime” (subjective aspect of the studied phenomenon).

The importance of place of residence, gender, and assessment of material status in the context of the fear of crime is confirmed by a logistic regression analysis. Answers to the question “Do you feel safe around your place of residence after dark?” were recoded into two different groups of people:

- People who feel safe in the area of their residence after dark (answers “definitely yes” and “probably yes” were aggregated),
- People who feel threatened (answers “definitely not”, “probably not”, “hard to say” were aggregated).

The conducted logistic regression for the binary dependent variable “feeling safe around your place of residence after dark”, results in the statistical significance of the following variables: gender (male), assessment of economic status (average), and the district of residence (North, West). Detailed results are presented in Table 3.

The respondents were also asked to indicate up to three (greatest) violations of social order from the following list: (1) Aggression by people who consume alcohol or drug addicts; (2) Reckless drivers; (3) Being accosted by groups of aggressive youths; (4) Fights and sparrings; (5) Break-ins to apartments, cellars, or cars; (6) Property damage; (7) Robberies and assaults; (8) Noisy and rude neighbors; (9) Thefts; (10) None; (11) Extortion and ransom; (12) Drug trafficking; (13) Reckless bikers; (14) Pedestrians breaking road traffic laws.

The two most serious and most frequently reported types of crime-related fear are “aggression by people who consume alcohol or drug addicts” and “reckless drivers” (Table 4). Over half of the City Center district residents and half of Right-Bank’s district residents fear people under the influence of intoxicants, while in the West and North boroughs, around one third of residents have those concerns. The second problem reported by the respondents is related to road traffic, and more specifically to drivers who are not careful while driving. The level of fear of reckless drivers in all districts is similar, with Right-Bank residents reporting the highest level. The ranking of fear of crime in the subjective perception of the respondents is lowest in relation to cyclists and pedestrians riding recklessly or breaking road traffic laws, respectively. A low percentage of respondents, only 2.31% in total, are afraid of reckless cyclists. The inhabitants of the City Center district are mostly afraid of reckless cyclists (4.21%), and those in the Right-Bank district the least (0%).

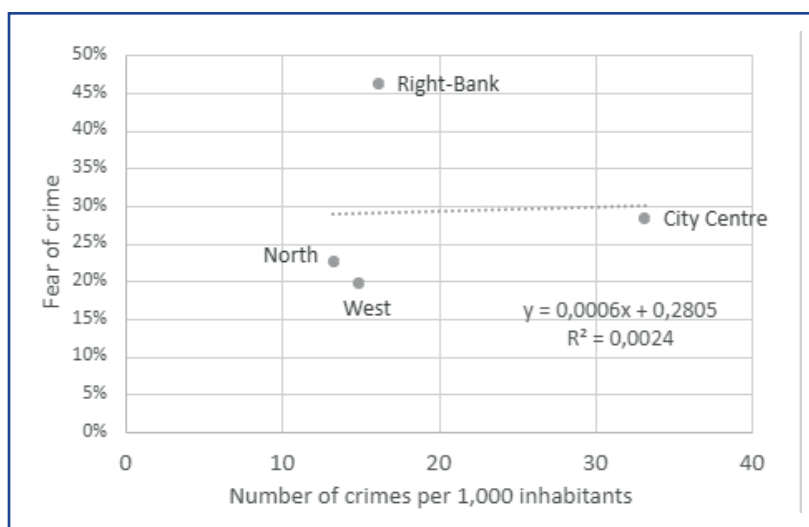


Fig. 4. Number of committed crimes per 1,000 inhabitants and reported fear of crime (percentage of answers to the question “Do you feel safe around your place of residence after dark?”)

Note: For the city of Szczecin, the number of crimes in total per 1,000 permanent registered inhabitants is 20.72, and the reported fear of crime is 27%.

Table 3. Logistic regression for the binary dependent variable indicating the sense of security in the vicinity of the place of residence after dark

Coefficients:	Estimate	Std. Error	z value	Pr(> z)	
(Intercept)	-0.1098	1.065	-0.103	0.9179	
Gender: Male	0.7754	0.2758	2.811	0.00494	**
Age: 19–25 years	0.8634	0.8536	1.011	0.31179	
Age: 26–40 years	0.4154	0.9185	0.452	0.65108	
Age: 41–65 years	0.3849	0.9772	0.394	0.69369	
Age: over 66	15.7843	778.8574	0.02	0.98383	
Labor market status: Professional	0.2138	0.5778	0.37	0.71138	
Labor market status: Retired	-0.8188	1.2531	-0.653	0.5135	
Labor market status: Pupil, student	-0.6571	0.6589	-0.997	0.31865	
Assessment of economic status: Average	-0.5022	0.2484	-2.022	0.04319	*
Assessment of economic status: Low	-1.2066	0.6841	-1.764	0.07774	.
Residential district: North	0.7741	0.3778	2.049	0.04046	*
Residential district: Right-Bank	-0.6934	0.4638	-1.495	0.13491	
Residential district: City Centre	0.3449	0.3278	1.052	0.29269	
Residential district: West	0.8873	0.3688	2.406	0.01614	*

Signif. codes: *** 0.001, ** 0.01 * 0.05, . 0.1

Pedestrians breaking the road traffic regulations do not pose a threat in any of the districts of the city of Szczecin (0% in all districts).

The perceived level of fear of crime is related to the belief in the effectiveness of Szczecin police. This relationship is presented in Table 5.

Table 5 shows a clear relationship between the assessment of the effectiveness of police work and the fear of crime. The level of the perceived fear of crime increases with lower belief in the effectiveness of police work (tau b=.326; tau c=.296; Chi-square Pearson = 65.72, df=8, p=0.00000; Chi-square M-L=67.95, df=8, p=0.00000). The police work assessment itself, as it is presented in Table 5, does not differentiate between the gender of the respondents. Indications are almost identical for both genders, with 23.18% of female and 24.78% of male participants believing that it is ineffective. There is a slightly stronger relationship, compared to gender, between the evaluation of the work of the police and age groups of the respondents. This effectiveness was rated lowest by people in the 26–40 age group (fewer than 15% positive indications). For comparison, in the 19–25 and 41–65 age groups, this percentage was 18.31% and 25.64%, respectively. The work of the police is assessed similarly by the two basic categories regarding education, which is based on professional status. Almost the same percentage of those professionally employed (16.52%), as well as pupils and students (18.00%), assess the effectiveness of the police work positively.

The assessment of the police work is presented in Figure 5. The high percentage of “hard to say” indications should also be considered problematic in the context of building a sense of security, demonstrating a lack of knowledge and, consequently, lack of confidence in the effectiveness of police operations. Table 6 presents the relation between the assessment of the police in the three presented dimensions and the residents’ belief in their effectiveness.

According to the Cramér’s V statistics presented in Table 6, the assessment of the effectiveness of police work (variable 1) is related more strongly to the police’s quick interventions (variable 2) and their willingness to help the residents and cooperate with the public (variable 3) than to kindness and personal culture (variable 4).

However, the evaluation of kindness and personal culture (variable 4) is clearly related to the positive assessment of the police’s readiness to help (variable 3), which is indicated by a Cramér’s V of 0.46. All components of the evaluation of police work translate into the perception of its effectiveness, which is related to crime-related fear in the city.

To assess the influence of the independent variables (presented in Table 1. Sample structure) on the police work assessment, the four dimensions indicated above were aggregated, with value 1 representing the worst assessment of the police work in the four analyzed dimensions, and a value of 9 indicating the most positive assessment. The resulting index (aggregated assessment of police

Table 4. Percentage of people expressing concerns about fear of crime

Type of violations	City Centre (n=96)	West (n=78)	North (n=68)	Right-Bank (n=28)	No district ¹ (n=83)	Total N=346
(1) Aggression by people who consume alcohol or drug addicts	50.53%	32.05%	37.88%	50.00%	39.51%	41.33%
(2) Reckless drivers	33.68%	35.90%	33.33%	42.31%	29.63%	33.82%
(3) Being accosted by groups of aggressive youth	30.53%	28.21%	27.27%	23.08%	34.57%	29.77%
(4) Fights and sparrings	28.42%	28.21%	21.21%	30.77%	29.63%	27.46%
(5) Break-ins to apartments, cellars, or cars	18.95%	26.92%	34.85%	34.62%	24.69%	26.30%
(6) Property damage	26.32%	19.23%	18.18%	30.77%	22.22%	22.54%
(7) Robberies and assaults	22.11%	24.36%	19.70%	11.54%	23.46%	21.68%
(8) Noisy and rude neighbors	18.95%	25.64%	22.73%	26.92%	14.81%	20.81%
(9) Thefts	17.89%	12.82%	16.67%	15.38%	12.35%	15.03%
(10) None	7.37%	6.41%	13.64%	0.00%	11.11%	8.67%
(11) Extortion and ransom	3.16%	2.56%	3.03%	3.85%	2.47%	2.89%
(12) Drug trafficking	4.21%	1.28%	1.52%	7.69%	2.47%	2.89%
(13) Reckless bikers	4.21%	2.56%	1.52%	0.00%	1.23%	2.31%
(14) Pedestrians breaking the road traffic law	0%	0%	0%	0%	0%	0.00%

¹ Questionnaires without specifying the district of residence of the respondent

Table 5. Assessment of the effectiveness of police work and the fear of crime

Do you feel safe around your place of residence after dark?	Is Szczecin police effective in fighting crime in the vicinity of your place of residence?			
	Effective	Hard to say	Ineffective	Total
Definitely yes	16	24	8	48
% of the column	26.67%	11.76%	9.76%	
Probably yes	40	120	27	187
% of the column	66.67%	58.82%	32.93%	
Hard to say	0	13	2	15
% of the column	0.00%	6.37%	2.44%	
Probably not	4	31	19	54
% of the column	6.67%	15.20%	23.17%	
Definitely not	0	16	26	42
% of the column	0.00%	7.84%	31.71%	
Total	60	204	82	346

work) has a low gender differentiation (male average grade 5.35, female 5.28). There is a slightly higher difference in regard to age group (average grade of 5.87 for the 41–65 age group, 5.19 for the 26–40 group, and 5.30 in the 19–25 age group). Considering the level of education, respondents with vocational education (average 4.25) distinguished themselves with a negative assessment of police

work. The unemployed also clearly differed from the average score, with a much more positive rating (average 6.19). The assessment of the work of the police also depends on the economic status of the respondents. The higher the (subjective) assessment of one's economic status, the greater the tendency to positively assess the work of the police. Respondents declaring a good economic status had an average

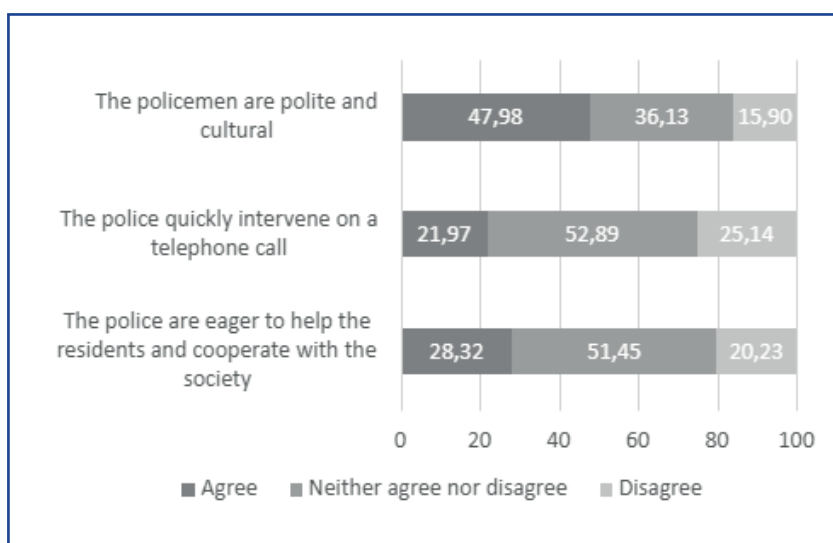


Fig. 5. Assessment of the work of the police (% of responses)

Table 6. Relationships between specific characteristics of the police work

Assessment of the strength of the relationship between the variables (V Cramér) *	1	2	3	4
1				
The police in Szczecin are effective at fighting crime in the vicinity of your place of residence.	1			
2				
The police quickly intervene when called.	0.34	1		
3				
The police are eager to help the residents and cooperate with locals.	0.35	0.43	1	
4				
The policemen are polite and cultural.	0.28	0.25	0.46	1

* All relationships are statistically significant. Pearson's Chi $\chi^2 < 0.001$

rating of police work of 5.50; those with an average economic status reported an average rating of 5.09; and those with a bad economic status assessed the average rating of the police work with 4.80. Finally, the average assessment of police work for

the districts is as follows: West – 5.49; North – 5.41; City Centre – 5.38; and Right-Bank – 5.04.

In combination with the crime-related fear index (the variable described in Figure 4), the following correlations are developed (Fig. 6):

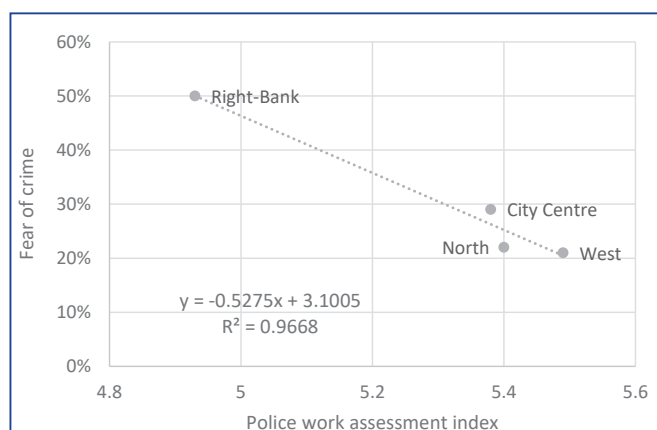


Fig. 6. Aggregated assessment of police work and the fear of crime

The very high value of the determination coefficient (R^2) requires attention to the fact that this relationship is largely based on an outlier case – the Right-Bank district (Fig. 6). The sheer size of the difference in assessing the work of the police is also unclear. Provided that the entire scale takes values from 1 to 9, and the chart shows only a part of it (from 4.8 to 5.6). However, the statistically significant correlation between the two analyzed variables needs to be noted and it should be stated that there is a correlation between the evaluation of the police work and the declared fear of crime. Where this assessment is more positive, the fear of crime decreases.

6. Discussion

The results of this research on the female perspective of crime-related fear in one's residential area in Szczecin show that, compared to men, fewer women feel safe around their place of residence (answering "definitely yes" or "probably yes" when asked "Do you feel safe around your place of residence?"). A higher percentage of women also answered "probably not" to the same question. A student's t-test showed a statistically significant difference between the mean indexes for women and men, further confirming that women feel greater fear of crime in their place of residence than men. The results of numerous studies confirm that both women and men feel fear of crime, while women experience a greater fear of crime (Garofalo, 1981; Hale, 1996; McGarrell et al., 1997; Pain, 1997; Macmillan et al., 2000; McCrea et al., 2005), which is up to three times greater than men's fear of crime (Reid & Konrad, 2004). A similar result was obtained in studies of the Polish city of Poznań (Kotus, 2005; Jabkowski, 2008). However, research conducted for the city of Poznań by Bogacka and Sieniecka (2016) revealed a contrasting outcome: 62.5% of women reported greater feelings of safety than did men, of whom only 55.6% felt safe in the vicinity of their place of residence. Analyzing the answers to the above question regarding age groups has shown that young women in education experience greater fear of crime than do men. Regarding the fear level after dark, it is even clearer that women feel less safe than men, with younger women again reporting the highest level, which is also supported by the result of the crime-related fear survey regarding labor market status, where pupils and students reported a lack of a sense of security much more often than working professionals. Surveys conducted among

Turkish students also showed that young women are characterized by a greater fear of crime than are young men (Köseoglu, 2021).

Analyzing the fear of crime in individual districts of the city of Szczecin shows that the highest level of crime-related fear is reported in the Right-Bank district, at more than three times higher than in the other three city districts. On the other hand, the level of crime-related fear after dark by districts indicates the highest level in the Right-Bank district, where as many as half of the respondents answered with "probably not" and "definitely not" while in other districts these responses were: 28.42% in the City Centre, 22.72% in the North district, and 20.51% in the West. The research conducted by Marcińczak and Siejkowska (2004), Mordwa (2011, 2013) and Prieto Curiel and Bishop (2017) also confirmed that among regions that are similar in crime rate the local perception of crime-related fear can vary.

The difference in crime-related fear in the vicinity of one's place of residence after dark cannot be explained by the number of crimes actually committed in Szczecin, which also confirms the objective index of a very low value of the determination coefficient ($R^2 = 0.0024$). There are many conflicting research findings regarding the relationship between police statistics on crime rate and fear of crime. Some research results show that even if a city has low or declining crime rates, the reported fear of crime may still be high (Ackerman et al., 2001; Mordwa, 2011; Prieto Curiel & Bishop, 2016). Other studies show that fear of crime may be related to the current number of crimes (Taylor & Hale, 1986; Wilcox-Rountree & Land, 1996; Wyant, 2008). The analysis of this relationship in Szczecin showed no impact of registered crimes on the level of crime-related fear. Undoubtedly, this phenomenon requires further research.

Residents of Szczecin are most afraid of aggression by people who consume alcohol or drug addicts, as well as of reckless drivers. Both of these reported social problems have, due to their high quantities, long been the subject of lively discussion in Poland. Data from the Organisation for Economic Co-operation and Development (OECD) show that the volume of alcohol consumption in Poland in 2019 was 11 liters of pure alcohol per person annually, and has had an upward trend in recent years (Sypion-Dutkowska & Leitner 2017: 18; OECD 2021). The problem of excessive alcohol consumption and the multifaceted, also indirect, effects of this negative phenomenon are primarily related to a highly developed alcohol sales network (with very easy access to alcohol), its relatively low price, and the way of selling alcohol (located in

the most visible places in the store and selling it in small bottles). The high alcohol availability, in addition to a very extensive sales network and no time limits in its purchase, is considered one of the basic factors of high alcohol consumption in a given society. It is also recognized that other factors, such as appropriate information campaigns, as well as programs aimed at building awareness of the risks associated with alcohol consumption (in the context of its availability), are of secondary importance to the volume of alcohol consumption. The measures taken by the Polish government to reduce the problem of alcohol abuse include a new tax on alcohol sold in bottles of up to 300 ml. The higher price is one of the ways of limiting the purchase of alcohol in 100 ml and 200 ml bottles, which are very popular in Poland. The available statistics show that the level of safety on Polish roads has improved in the last three years. The number of people injured in road accidents decreased from 37,359 in 2018 to 26,463 in 2020, and the number of fatalities in the same period decreased from 2,862 to 2,491 (Komenda Główna Policji, 2022). An important factor in the context of the described phenomenon is the high number of accidents occurring near the victim's place of residence (Haas et al., 2015).

One result that deserves attention is the relationship between fear of crime and the opinion of residents about the effectiveness of police work. The study reported that the better the assessment of police work, the lower the fear of crime. The gender of the respondents does not significantly differentiate the research result in this aspect. On the other hand, it is very visible in the analysis of this variable by districts that in the Right-Bank district, where the fear of crime level is significantly higher, there is also a significantly lower result of the police work assessment index compared to the other three city districts. Weitzer and Tuch (2005) obtained the same conclusions from their research conducted by the company Knowledge Networks, where the satisfaction with the work of the police was examined by, among other things, answering the question "Overall, how safe do you feel being alone outside in your neighborhood both during the night and during the day?" In their study, Kort-Butler and Hartshorn (2011) asked about trust in the police and the fairness of the criminal justice system. Their research showed that, as an individual's fear of crime increases, their perception of the police changes more negatively. Similar research results were also obtained by Skogan (2009). There are also studies examining the impact of rating police performance on fear of crime, which showed no statistically significant effect on fear of crime (Adu-Mireku,

2002; Scheider et al., 2003). The results obtained in our study may signify that in the relationship between the evaluation of the police's work and the subjective evaluation of one's fear of crime, the positive image of the police in the local community becomes more important.

The authors conclude, therefore, that it is possible to improve the perception of security in a local community without incurring additional financial outlays for a larger number of police patrols or introducing municipal interventions, as it is enough to improve the image of the police's work.

When describing the category of people who do not feel safe in their neighborhood, it should be pointed out that there is a certain overrepresentation of educated young women (the 19–25 years group). However, demographic variables do not clearly explain the described phenomenon. Activities aimed at building a sense of security in local communities should therefore be addressed to a wide (demographic) spectrum of residents, with some emphasis on young females.

The results of the above analysis allowed us to answer the research questions formulated at the end of the Introduction.

As for the first research question, the results of the survey indicate that the majority (more than three quarters) of the residents of Szczecin feel safe in the vicinity of their residence. In general, slightly higher indicators of a sense of security after dark were found, although lower for women (approximately two thirds) than for men (approximately three quarters).

Regarding the second research question it can be said that, on average, fewer women (~63%) than men (~77%) feel safe regardless of the time of day. Women declared a statistically significant higher level of fear of crime. It should be noted, however, that only ~25% of women and ~37% of men, after dark, respectively, and ~37% and ~23% of women and men, respectively, declared a definitely low level of perceived fear of crime. More than half of the respondents, regardless of gender and time of day, feel that they are at a moderate risk of crime and other dangerous situations in the vicinity of their residence.

In connection with the third research question about the extent of the socio-economic characteristics of the respondents differentiating the level of crime-related fear, it can be concluded that the education variable differentiates the respondents only to a small extent. More important explanatory factors are age and labor market status. Comparing the two most numerous age groups in the study, the older (26–40 years) age group, declares less frequently a fear

of crime than people in the 19–25 age group. This difference increases when we consider labor market status as the key explanatory variable. Pupils and students are more likely to indicate a lack of crime-related fear than those working professionally. Considering the age and education categories, it should be noted that the fear of crime after dark is again reported more often by younger educated respondents.

The fourth research question concerned the types of violations that local residents are most afraid of. The two most serious and most frequently reported types of crime-related fear are “aggression by people who consume alcohol or drug addicts” and “reckless drivers”. The second problem reported by the respondents is related to road traffic, and more specifically to careless drivers. The low percentage of respondents, only 2% in total, are afraid of reckless cyclists.

Next, the fifth research question was concerned with the spatial differentiation of the fear of crime. The distribution of fear of crime also depends on the place of residence, i.e., the city district. The difference is especially clear when we ask respondents about the fear of crime after dark. In the Right Bank districts, responders are more afraid for their safety (~50%) than in the City Centre (~30%) and the north (~20%). The same question concerned the dependency of the fear of crime on the number of crimes committed in individual city districts. A statistical correlation analysis indicates that the variable “number of crimes” does not explain the level of the variable “fear of crime” reported by inhabitants of districts, especially when it comes to the “fear of crime after dark”. The population of the Right Bank district constitutes ~16% of respondents, and the City Center district ~30%, while the fear of crime in the Right Bank was two times higher. On the other hand, in the City Center district, there were more than twice as many crimes per 1,000 than in the north (~13% of respondents) and the west (~15% of respondents) districts, while the level of fear of crime is similar among these three districts. Although in the City Centre district the crime rate per 1,000 inhabitants is by far the highest, the level of perceived fear of crime is lower than in the Right-Bank.

The sixth research question was whether the assessment of police work impacts the individual's fear of crime. It must be said that there is a clear relationship between the assessment of the effectiveness of police work and the fear of crime. The level of the perceived fear of crime increases with a lower belief in the effectiveness of the police work. The police work assessment itself does not

differentiate between the gender of the respondents. This effectiveness of police work was rated lowest by people in the 26–40 age group and highest in the 19–25 and 41–65 age groups. The work of the police is assessed in a similar way regarding the two categories of education and professional status. The assessment of police work also depends on the economic status of the respondents. The higher the (subjective) assessment of one's economic status, the greater the tendency to positively assess police work.

The present study encourages further research on larger samples of respondents, and a smaller spatial scale, especially in the direction of describing and explaining the spatial differentiation of the fear of crime, as well as identifying and counteracting this fear in one's neighborhood (especially after dark) of the one experienced by young individuals in education (pupils and students).

7. Conclusions

Research in the field of fear of crime has been particularly vibrant since the late 1970s and has consistently uncovered a paradox: those statistically less likely to be victims of crime often fear it more (Hale, 1996). This counterintuitive finding, alongside the observation that fear of crime does not decrease in tandem with actual crime rates – a phenomenon highlighted by the British Crime Survey between 1999 and 2000 (Kershaw et al., 2001) – suggests a complex relationship between perceived and actual safety risks. This complexity is further explored through the lens of social disorganization theory (Shaw & McKay, 1942), which links community characteristics to crime and fear levels, positing that social ties, institutional effectiveness, and socio-economic conditions play pivotal roles.

Recent decades have seen the conceptualization of fear of crime evolve, recognizing it as a multifaceted issue with significant implications for quality of life and community choices (Butler & Cunningham, 2010; Ceccato & Meško, 2021). The literature now emphasizes the psychological, perceived risk, and social narrative dimensions of fear, underscoring the importance of demographic factors and past experiences (Rader, 2004). This research, set against the backdrop of Szczecin, Poland, aims to delve into the interplay between gender, age, socio-economic status, and spatial factors in shaping fear of crime, thereby marrying theoretical frameworks with localized empirical insights to provide a nuanced understanding of fear dynamics in urban settings.

Notes

1. In this study, the term "after dark" refers to the feeling of fear of crime after dark, regardless of the time of day and the activity of the respondent.
2. The index was created by aggregating the results of two questions: "Do you feel safe around your place of residence?", and "Do you feel safe around your place of residence after dark?" The answers were recoded into numerical values according to the key: Definitely yes – 1; Probably yes – 3; Hard to say – 4; Probably not – 5; Definitely not – 7. The values of both recoded variables were summed. In order for the values of the obtained index to start from zero (which makes it easier for the reader to interpret the results), 2 was subtracted from the obtained sum. In this way, an index value of 0 means two "Definitely yes" answers, and the highest value of 12 means two "Definitely not" answers.

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References

- Ackerman, G., Anderson, B., Jensen, S., Ludwig, R., Montero, D., Plante, N. & Yanez, V. (2001). Crime Rates and Confidence in the Police: America's Changing Attitudes toward Crime and Police, 1972-1999. *The Journal of Sociology & Social Welfare*, 28(1). Available at: <https://scholarworks.wmich.edu/jssw/vol28/iss1/4>.
- Adu-Mireku, S. (2002). Fear of Crime Among Residents of Three Communities in Accra, Ghana. *International Journal of Comparative Sociology*, 43(2): 153-168. <https://doi.org/10.1177/002071520204300203>.
- Anderson, D.A. (1999). The Aggregate Burden of Crime. *The Journal of Law and Economics*, 42(2): 611-642. DOI: <https://doi.org/10.1086/467436>.
- Bilsky, W. & Wetzels, P. (1997). On the relationship between criminal victimization and fear of crime. *Psychology, Crime & Law*, 3(4): 309-318. DOI: <https://doi.org/10.1080/10683169708410826>.
- Bogacka, E. & Siniecka, A. (2016). Poczucie bezpieczeństwa mieszkańców miasta. Przykład Poznania. *Rozwój Regionalny i Polityka Regionalna*, 33: 57-71.
- Brunton-Smith, I. & Sturgis, P. (2011). Do neighborhoods generate fear of crime? An empirical test using the British Crime Survey. *Criminology*, 49, 331-369. <https://doi.org/10.1111/j.17459125.2011.00228.x>
- Butler, M. & Cunningham, P. (2010). Fear of Crime in the Republic of Ireland: Understanding Its Origins and Consequences. In: S. Shoham, P. Knepper, & M. Kett (Eds.), *International Handbook of Victimology*, 429-458. CRC Press. DOI: <https://doi.org/10.1201/EBK1420085471-c16>.
- Carro, D., Valera, S. & Vidal, T. (2010). Perceived insecurity in the public space: Personal, social and environmental variables. *Quality & Quantity*, 44(2): 303-314. DOI: <https://doi.org/10.1007/s11135-008-9200-0>.
- Ceccato, V. & Meško, G. (2021). Special Issue: Crime, Fear of Crime and Environmental Harm in Rural Areas. *International Criminology*, 1(3): 175-177. DOI: <https://doi.org/10.1007/s43576-021-00032-z>.
- Chataway, M. (2018). Fear of Crime in Time and Place: Developing and Testing a New Momentary Social-Psychological Model of Victimisation Worry. DOI: <https://doi.org/10.25904/1912/1386>.
- Chiricos, T., Padgett, K. & Gertz, M. (2000). Fear, Tv News, and the Reality of Crime. *Criminology*, 38(3): 755-786. DOI: <https://doi.org/10.1111/j.1745-9125.2000.tb00905.x>.
- Christmann, K. & Rogerson, M. (2004). *Crime, fear of crime and quality of life identifying and responding to problems*. Sheffield Hallam University, Centre for Regional Economic and Social Research.
- Christmann, K., Rogerson, M. & Walters, D. (2003). Fear of Crime and Insecurity in New Deal for Communities Partnerships (Research Report 14). Sheffield Hallam University, Centre for Regional Economic and Social Research. Available at: https://pure.hud.ac.uk/ws/files/6949399/Fear_of_Crime_and_Insecurity_in_New_Deal_for_Communities_Partnerships.pdf.

- City of Szczecin. (2021). Report on the State of Szczecin City Municipality 2020.
- Clarke, R.V. (2002). Shoplifting. Available at: https://popcenter.asu.edu/sites/default/files/shoplifting_2nd_ed.pdf.
- Craig, M.D. (2018). *Fear of Crime Among the Elderly: A Multi-Method Study of the Small Town Experience (1st edition)*. Routledge.
- Criminal Justice Information Services Division. (2018). Crime in the U.S. 2018. Crime in the U.S. 2018. Available at: <https://ucr.fbi.gov/crime-in-the-u.s/2018/crime-in-the-u.s.-2018/tables/table-1/table-1.xls>.
- Dammert, L. & Malone, M. (2004). Fear of Crime or Fear of Life? Public Insecurities in Chile. *Bulletin of Latin American Research*, 22: 79–101. DOI: <https://doi.org/10.1111/1470-9856.00065>.
- De Donder, L., Verté, D. & Messelis, E. (2005). Fear of crime and elderly people: Key factors that determine fear of crime among elderly people in West Flanders. *Ageing International*, 30(4): 363.
- Ergun, N. & Yirmibesoglu, F. (2011). Fear of crime in the Istanbul city center.
- Eve, S.B. (1985). Criminal victimization and fear of crime among the non-institutionalized elderly in the United States: A critique of the empirical research literature. *Victimology*, 10(1-4): 397-408.
- Farrell, G., Tilley, N., Tseloni, A. & Mailley, J. (2011). The crime drop and the security hypothesis. 48, 147–175.
- Fattah, E.A. (1993). Research on fear of crime: Some common conceptual and measurement problems. In: W. Bilsky, C. Pfeiffer, & P. Wetzels (Eds.), *Fear of Crime and Criminal Vicrimizarion*, 45–70.
- Ferraro, K.F. & Grange, R.L. (1987). The measurement of fear of crime. 57, 70–97.
- Gallup. (2007). Crime. Gallup.Com. Available at: <https://news.gallup.com/poll/1603/Crime.aspx>.
- García-Castro, J.D. & Perez Sanchez, R. (2018). Fear of Crime and Cultivation Effect. Social and Psychological Predictors. *Universitas Psychologica*, 17(3): 1–14. DOI: <https://doi.org/10.11144/Javeriana.upsy17-3.fcce>.
- Garofalo, J. (1981). The Fear of Crime: Causes and Consequences. *The Journal of Criminal Law and Criminology*, 72(2): 839. DOI: <https://doi.org/10.2307/1143018>.
- General Social Survey. (2023). Available at: <https://www.norc.ox.ac.uk/Research/Projects/Pages/general-social-survey.aspx>.
- Gilchrist, E., Bannister, J., Ditton, J. & Farrall, S. (1998). WOMEN AND THE “FEAR OF CRIME”: Challenging the Accepted Stereotype. *British Journal of Criminology*, 38(2): 283–298. DOI: <https://doi.org/10.1093/oxfordjournals.bjc.a014236>.
- Haas, B., Doumouras, A.G., Gomez, D., de Mestral, C., Boyes, D.M., Morrison, L. & Nathens, A.B. (2015). Close to home: An analysis of the relationship between location of residence and location of injury. *The Journal of Trauma and Acute Care Surgery*, 78(4): 860–865. DOI: <https://doi.org/10.1097/TA.0000000000000595>.
- Hale, C. (1996). Fear of Crime: A Review of the Literature. *International Review of Victimology*, 4(2): 79–150. DOI: <https://doi.org/10.1177/026975809600400201>.
- Jabkowski, P. (2008). Poczucie bezpieczeństwa i poziom przestępczości w Poznaniu. Analiza socjologiczna w perspektywie wskaźników jakości życia (Sense of security and level of crime in Poznań. A sociological analysis in the perspective of quality of life indicators - in Polish). *Zastosowania metod statystycznych w badaniach naukowych*, 3: 203–212.
- Jabkowski, P. & Kilarska, A. (2013). *Poczucie bezpieczeństwa i poziom przestępczości w Poznaniu* (Sense of safety and crime level in Poznań - in Polish). Wydawnictwo Naukowe UAM.
- Jackson, J. (2009). A psychological perspective on vulnerability in the fear of crime. *Psychology, Crime & Law*, 15(4): 365–390. DOI: <https://doi.org/10.1080/10683160802275797>.
- Jackson, J. & Gray, E. (2010). Functional Fear and Public Insecurities About Crime. *British Journal of Criminology*, 50(1): 1–22. DOI: <https://doi.org/10.1093/bjc/azp059>.
- Jacobs, J. (1961). *Death and Life of Great American Cities*. New York: Random House.
- Kanan, J.W. & Pruitt, M.V. (2002). Modeling Fear of Crime and Perceived Victimization Risk: The (In)Significance of Neighborhood Integration. *Sociological Inquiry*, 72(4): 527–548. DOI: <https://doi.org/10.1111/1475-682X.00033>.
- Kershaw, C., Chivite-Matthews, N., Thomas, C. & Aust, R. (2001). British Crime Survey 2001. London, UK: Great Britain Home Office.

- Killias, M. & Clerici, C.** (2000). Different Measures of Vulnerability in their Relation to Different Dimensions of Fear of Crime. *British Journal of Criminology*, 40(3): 437–450. DOI: <https://doi.org/10.1093/bjc/40.3.437>.
- Kinsey, R. & Anderson, S.** (1992). *Crime and the Quality of Life: Public Perceptions and Experiences of Crime in Scotland: Findings from the 1988 British Crime Survey*. Scottish office, Central Research Unit.
- Komenda Główna Policji. (2022). Wypadki drogowe w Polsce w 2021 roku. Available at: <https://webcache.googleusercontent.com/search?q=cache:qUwh9X4hJYEJ:https://statystyka.policja.pl/download/20/381967/Wypadkidrogowe2021.pdf&cd=3&hl=pl&ct=clnk&gl=pl>.
- Kort-Butler, L.A. & Hartshorn, K.J.S.** (2011). Watching the Detectives: Crime Programming, Fear of Crime, and Attitudes About the Criminal Justice System. *The Sociological Quarterly*, 52(1): 36–55.
- Köseoğlu, M.** (2021). Fear of crime perceptions of university students. *Sociologia, Problemas e Práticas*, 96: 41–56. DOI: <https://doi.org/10.7458/SPP20219618280>.
- Kotus, J.** (2005). *Społeczne dylematy w przestrzeni miejskiej* (Social dilemmas in urban space - in Polish). Bogucki Wydawnictwo Naukowe.
- LaGrange, R.L., Ferraro, K.F. & Supancic, M.** (1992). Perceived risk and fear of crime: Role of social and physical incivilities. *Journal of research in crime and delinquency*, 29(3): 311–334.
- Liska, A., Sanchirico, A. & Reed, M.D.** (1988). Fear of crime and constrained behavior specifying and estimating a reciprocal effects model. *Social Forces*, 66(3): 827–837. DOI: <https://doi.org/10.1093/SF/66.3.827>.
- Macmillan, R., Nierobisz, A. & Welsh, S.** (2000). Experiencing the Streets: Harassment and Perceptions of Safety among Women. *Journal of Research in Crime and Delinquency*, 37(3): 306–322. DOI: <https://doi.org/10.1177/0022427800037003003>.
- Marciniczak, S., & Siejkowska, A.** (2004). Zróżnicowanie przestrzenne przestępczości w Łodzi w latach 1988–2001 a percepcja obszarów niebezpiecznych (Spatial diversity of crime in Lodz 1988–2001 and the perception of dangerous areas - in Polish). In: J. Słodczyk (ed.). *Przemiany struktury przestrzennej miast w sferze funkcjonalnej i społecznej*, 363–375.
- Mayoyo, L., Potgieter, P. & Ras, J.** (2011). Fear of crime and the role of the police. *Inkanyiso: Journal of Humanities and Social Sciences*, 3(1): 80–90. DOI: <https://doi.org/10.4314/ijhss.v3i1.69512>.
- McCrea, R., Shyy, T.-K., Western, J. & Stimson, R. J.** (2005). Fear of crime in Brisbane: Individual, social and neighbourhood factors in perspective. *Journal of Sociology*, 41(1): 7–27. DOI: <https://doi.org/10.1177/1440783305048381>.
- McGarrell, E.F., Giacomazzi, A.L. & Thurman, Q.C.** (1997). Neighborhood disorder, integration, and the fear of crime. *Justice Quarterly*, 14(3): 479–500. DOI: <https://doi.org/10.1080/07418829700093441>.
- Miethe, T.D. & Lee, G.R.** (1984). Fear of Crime among Older People: A Reassessment of the Predictive Power of Crime-Related Factors. *The Sociological Quarterly*, 25(3): 397–415.
- Mirrlees-Black, C., Mayhew, P. & Percy, A.** (1996). The 1996 British Crime Survey: England and Wales. Available at: <https://www.ojp.gov/ncjrs/virtual-library/abstracts/british-crime-survey-1996-england-and-wales>.
- Moore, S.E.H. & Breeze, S.** (2012). Spaces of Male Fear: The Sexual Politics of Being Watched. *The British Journal of Criminology*, 52(6): 1172–1191.
- Mordwa, S.** (2011). Poczucie bezpieczeństwa w Łodzi. Przykład badań mieszkańców osiedli mieszkaniowych. *Space–Society –Economy*, 10: 181–196. DOI: <https://doi.org/10.18778/1733-3180.10.08>.
- Mordwa, S.** (2013). *Przestępczość i poczucie bezpieczeństwa w przestrzeni miasta* (Crime and sense of safety in the city - in Polish). Wyd. Uniwersytetu Łódzkiego.
- Morgan, R.E. & Truman, J.L.** (2019). Criminal victimization, 2018. *Bureau of Justice Statistics*, 845: 11–18.
- National Crime Council (Ireland) (Ed.). (2009). Fear of crime in Ireland and its impact on quality of life. Dept. of Justice, Equality and Law Reform.
- National Survey of Crime and Safety. (2023). Available at: <https://nscs2022.org/login.php>.
- Newborn, T. & Stanko, E.** (1994). *When Men Are Victims. In Just Boys Doing Business? Men, Masculinities and Crime*. Routledge.
- Nofziger, S. & Williams, L.S.** (2005). Perceptions of Police and Safety in a Small Town. *Police Quarterly*, 8(2): 248–270. DOI: <https://doi.org/10.1177/1098611103258959>.
- OECD. (2021). Alcohol consumption (indicator). Available at: <https://doi.org/10.1787/e6895909-en>.

- Özascilar, M.** (2013). Predicting fear of crime: A test of the shadow of sexual assault hypothesis. *International Review of Victimology*, 19(3): 269–284. DOI: <https://doi.org/10.1177/0269758013492754>.
- Pain, R.H.** (1995). Elderly women and fear of violent crime: The least likely victims? A reconsideration of the extent and nature of risk. *The British Journal of Criminology*, 35(4): 584–598.
- Pain, R.H.** (1997). Social Geographies of Women's Fear of Crime. *Transactions of the Institute of British Geographers*, 22(2): 231–244.
- Palmer, C., Ziersch, A., Arthuson, K. & Baum, F.** (2005). "Danger lurks around every corner": Fear of Crime and its Impact on Opportunities for Social Interaction in Stigmatised Australian Suburbs. *Urban Policy and Research*, 23(4): 393–411. DOI: <https://doi.org/10.1080/08111470500354216>.
- Pánek, J., Ivan, I. & Macková, L.** (2019). Comparing Residents' Fear of Crime with Recorded Crime Data—Case Study of Ostrava, Czech Republic. *ISPRS International Journal of Geo-Information*, 8(9): 401. DOI: <https://doi.org/10.3390/ijgi8090401>.
- Pantazis, C.** (2000). 'Fear of Crime', Vulnerability and Poverty. *The British Journal of Criminology*, 40(3): 414–436. DOI: <https://doi.org/10.1093/bjc/40.3.414>.
- Pease, K. & Ignatans, D.** (2016). The global crime drop and changes in the distribution of victimisation. *Crime Science*, 5(1): 1–6. DOI: <https://doi.org/10.1186/s40163-016-0049-6>.
- Perkins, D.D. & Taylor, R.B.** (1996). Ecological assessments of community disorder: Their relationship to fear of crime and theoretical implications. *American journal of community psychology*, 24(1): 63–107.
- Poprawski, J.** (2016). Percepcja bezpieczeństwa personalnego wśród mieszkańców aglomeracji wrocławskiej (Perception of personal security among residents of the Wrocław agglomeration. - in Polish). *Rocznik Bezpieczeństwa Międzynarodowego*, 10(1): 209–221.
- Prieto Curiel, R. & Bishop, S.** (2017). Modelling the fear of crime. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 473(2203): 20170156. DOI: <https://doi.org/10.1098/rspa.2017.0156>.
- Prieto Curiel, R. & Bishop, S.R.** (2016). A metric of the difference between perception of security and victimisation rates. *Crime Science*, 5(1): 12. DOI: <https://doi.org/10.1186/s40163-016-0060-y>.
- Rader, N.E.** (2004). The Threat of Victimization: A Theoretical Reconceptualization of Fear of Crime. *Sociological Spectrum*, 24(6): 689–704. DOI: <https://doi.org/10.1080/02732170490467936>.
- Reid, L.W. & Konrad, M.** (2004). The Gender Gap in Fear: Assessing the Interactive Effects of Gender and Perceived Risk on Fear of Crime. *Sociological Spectrum*, 24(4): 399–425. DOI: <https://doi.org/10.1080/02732170490431331>.
- Robinson, J.B., Lawton, B.A., Taylor, R.B. & Perkins, D.D.** (2003). Multilevel longitudinal impacts of incivilities: Fear of crime, expected safety, and block satisfaction. *Journal of quantitative criminology*, 19: 237–274.
- Sacco, V.F.** (1990). Gender, fear, and victimization: A preliminary application of power-control theory. *Sociological Spectrum*, 10(4): 485–506.
- Sacco, V.F.** (1993). Social support and the fear of crime. *Canadian Journal of Criminology*, 35(2): 187–196.
- Sampson, R.** (2009). Bullying in Schools.
- Schafer, J.A., Huebner, B.M. & Bynum, T.S.** (2006). Fear of crime and criminal victimization: Gender-based contrasts. *Journal of Criminal Justice*, 34(3): 285–301. DOI: <https://doi.org/10.1016/j.jcrimjus.2006.03.003>.
- Scheider, M.C., Rowell, T. & Bezdikian, V.** (2003). The Impact of Citizen Perceptions of Community Policing on Fear of Crime: Findings from Twelve Cities. *Police Quarterly*, 6(4): 363–386. DOI: <https://doi.org/10.1177/1098611102250697>.
- Scott, H.** (2003). Stranger Danger: Explaining Women's Fear of Crime. *Western criminology review*, 4(3).
- Scott, M.S.** (2002). *Panhandling*. Washington, DC: US Department of Justice, Office of Community Oriented Policing Services.
- Scott, Y.M.** (2001). *Fear of crime among inner-city African Americans*. LFB Scholarly Pub.
- Sham, R., Khalifah Soltani, S. H., Sham, M. & Mohamed, S.** (2013). Travel Pattern and Fear of Crime among Women Commuters. *Journal of Asian Behavioural Studies*, 3(9): 121–132. DOI: <https://doi.org/10.21834/jabs.v3i7.266>.
- Shaw, C.R. & McKay, M.D.** (1942). *Juvenile Delinquency and Urban Areas*. Chicago University Press.

- Skogan, W.** (1986). Fear of Crime and Neighborhood Change. *Crime and Justice*, 8: 203–229. DOI: <https://doi.org/10.1086/449123>.
- Skogan, W.G.** (1987). The Impact of Victimization on Fear. *Crime & Delinquency*, 33(1): 135–154. DOI: <https://doi.org/10.1177/0011128787033001008>.
- Skogan, W.G.** (1993). The various meanings of fear. In: Bilsky, W., Pfeiffer, C. & Wetzels, P. (Eds.), *Fear of crime and Criminal Vicrimizarion*, 131–140.
- Skogan, W.G.** (2009). Concern About Crime and Confidence in the Police: Reassurance or Accountability? *Police Quarterly*, 12(3): 301–318. DOI: <https://doi.org/10.1177/1098611109339893>.
- Stanko, E.A. & Hobdell, K.** (1993). Assault on men: Masculinity and Male Victimization. *The British Journal of Criminology*, 33(3): 400–415.
- Statistisc Poland, Local Data Bank (BDL). (2023). Available at: <https://bdl.stat.gov.pl/bdl/start>.
- Miethe, T.D. & Lee, G.R.** (1984). Fear of crime among older people: A reassessment of the predictive power of crime-related factors. *Sociological Quarterly*, 25(3): 397–415.
- Sypion-Dutkowska, N. & Leitner, M.** (2017). Land use influencing the spatial distribution of urban crime: A case study of Szczecin, Poland. *ISPRS International Journal of Geo-Information*, 6(3): 74.
- Tandogan, O. & Ilhan, B.S.** (2016). Fear of Crime in Public Spaces: From the View of Women Living in Cities. *Procedia Engineering*, 161: 2011–2018. DOI: <https://doi.org/10.1016/j.proeng.2016.08.795>.
- Taylor, R.B. & Hale, M.** (2017). Criminology: Testing alternative models of fear of crime. In *The fear of crime*, 355–393. Routledge.
- Tseloni, A.** (2007). Fear of crime, perceived disorders and property crime: A multivariate analysis at the area level. 21: 163–185.
- Tuan, I.-F.** (1979). *Landscapes of fear* (1st edition). Pantheon Books.
- Tulloch, M.** (2000). The Meaning of age Differences in the Fear of Crime. *The British Journal of Criminology*, 40(3): 451–467. DOI: <https://doi.org/10.1093/bjc/40.3.451>.
- Ute, G. & Werner, G.** (2003). The Psychology of Fear of Crime: Conceptual and Methodological Perspectives. *British Journal of Criminology*, 43(3): 600–614. DOI: <https://doi.org/10.1093/bjc/azg600>.
- Van Velzen, F.A.** (1998). *Fear of crime: A socio-criminological investigation*. Unpublished doctoral thesis. (University of Zululand).
- Ward, R.A., LaGory, M. & Sherman, S.R.** (1986). Fear of Crime Among the Elderly as Person/Environment Interaction. *The Sociological Quarterly*, 27(3): 327–341. DOI: <https://doi.org/10.1111/j.1533-8525.1986.tb00264.x>.
- Warr, M.** (2000). Fear of crime in the United States: Avenues for research and policy. *Criminal justice*, 4(4): 451–489.
- Weitzer, R. & Tuch, S.A.** (2005). Determinants of Public Satisfaction with the Police. *Police Quarterly*, 8(3): 279–297. DOI: <https://doi.org/10.1177/1098611104271106>.
- Wikström, P.-O. H., Oberwittler, D., Treiber, K. & Hardie, B.** (2013). *Breaking Rules: The Social and Situational Dynamics of Young People's Urban Crime (Illustrated edition)*. Oxford University Press.
- Wilcox-Rountree, P. & Land, K.C.** (1996). Burglary victimization, perceptions of crime risk, and routine activities: A multilevel analysis across Seattle neighborhoods and census tracts. *Journal of Research in Crime and Delinquency*, 33: 147–180.
- 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. DOI: <https://doi.org/10.1177/0022427807309440>.
- Ziersch, A., Putland, C., Palmer, C., MacDougall, C. & Baum, F.** (2007). Neighbourhood Life, Social Capital and Perceptions of Safety in the Western Suburbs of Adelaide. *Australian Journal of Social Issues*, 42(4): 549–562. DOI: <https://doi.org/10.1002/j.1839-4655.2007.tb00077.x>

