ORIGINAL ARTICLE CPPHI 2026; 17(1): 68–83

# Fear of Crime and Time Perspective

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## Summary

The present research study aims to analyse the relationships between different variables such as time perspective in the context of fear of crime. The construct of "fear of crime" was analyzed and divided into four parts, namely, concern about crime, perceived likelihood of personal crime, perceived control over personal crime, and perceived consequences of personal crime.

We used the Zimbardo Time Perspective Inventory (ZTPI) to ascertain past experiences, current stimuli, and expected consequences (related to crime). As the last scale, we used a scale to measure fear of crime and that was the Fear of Crime Scale. Time perspective emerged as a significant factor to predict fear of crime, especially negative past and hedonistic present. Last but not least, we sought to determine the gender difference in experiencing fear of crime. Overall, males had a greater fear of crime than females, specifically in the section focusing on fears and perceived likelihood of personal crime. Women scored higher only on the perceived consequences of personal crime section.

### File and methods

The main purpose of this research is to conduct a theoretical and empirical investigation of the relationships between fear of crime and dispositional constructs associated with future expectancy, as well as subjective perceptions of the past, present, and future within the construct of time perspective. A secondary aim is to test the influence of selected demographic variables on fear of crime. A further aim of this thesis is to demonstrate whether these factors do indeed contribute significantly to the prediction of fear of crime.

The research method used in the present study was the Zimbardo Time Perspective Inventory (ZTPI) - respondents were asked to answer statements using a 5-point scale where 1 meant completely false, 2 rather false, 3 neither true nor false, 4 rather true and 5 completely true. A questionnaire was administered to respondents who participated in this research that included demographic data, gender, and age. The questionnaire included a basic scale, the Fear of Crime Scale (Reyes-Sosa, Molina-Coloma 2018).

**Keywords** Fear of crime. Time perspective. Zimbardo Time Perspective Inventory. Gender. Psychology.

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**Cite as**

Clinical Psychology and Psychosocial Health Interventions. 2026; 17(1): 68–83. https://doi.org/10.22359/cswhi_17_1_09

Cited references: 14
Publisher: International Society of Applied Preventive Medicine i-gap

## Introduction

Criminologists have long debated the relationship between crime and fear (Jackson, 2009). Given the weak relationship between crime and fear, researchers have looked elsewhere for explanations. Until now, it has been difficult to isolate clear-cut effects of mass media. Instead, perhaps the strongest evidence relates to the importance of public fears regarding neighborhood disruptions, social cohesion, and collective efficacy (Jackson, 2009). The idea is that the incidence and risk of crime is associated in the public mind with issues of social stability, moral consensus, and collective processes of informal control that promote neighborhood order. Everyday problems (young people roaming the streets, the poor, community spirit, low levels of trust and cohesion) produce information about risk and create a sense of unpleasantness, insecurity and mistrust in the environment. „In order to ensure the useful, targeted and effective assistance was created legal area based on the activation of recipients of social services and (with) orientation to their needs." (Mačkinová et al., 2015, p.3)

Many people use words such as fear and crime to express fears of neighbourhood breakdown, loss of moral authority, and breakdown of civility and social capital (Jackson, 2009). Importantly, a complementary perspective thinks that personal vulnerability, defined as differential perceptions of probability, control, and consequences, operates alongside processes of social sensing (Jackson, 2009). The feeling that a crime should have extremely serious consequences and the feeling of little control over the event can disproportionately affect certain groups and thus play a crucial role in the creation and distribution of fear. Hale states that any model that attempts to explain fear includes some notion of vulnerability (Jackson, 2009). At a common sense level, people who feel unable to protect themselves, either because they cannot, for example, run fast or lack the physical fitness to flee an attacker, or because they cannot afford to protect their homes, or because they would take longer to recover from material or physical injuries, can be expected to fear crime more than others.

There are theoretical advances in terms of vulnerability. There are also separate empirical advances in the role of public perceptions of probability and consequences of victimisation. Yet no study has incorporated existing psychological theory on fear of crime to extend the multidimensional conception of vulnerability that to encompass the full range of risk assessment. Killas suggests that there are physical, social and situational aspects of vulnerability that are related to the dimensions of threat that cover exposure to non-negligible risk, loss of control and severity of consequences. For example, more severe consequences are expected for women, older people and people in poor health (physical factors), victims without social support (social factors) and in abandoned areas where no help is available (situational factors). However, as stated by Mačkinová and authors (2019, p. 19), „family and positively fulfilling family relationships form an important role in the occurrence of a variety of negative events that make a person perceptible. When various adverse situations arise, a functional family not only acts as a protection but also as a support, while also facilitating effective stress management."

We are not aware of any study that has identified the mechanisms that promote vulnerability as perceived likelihood, control and consequences. Gender has been tested and age aspects to explain the likelihood of victimization (Likely I am a victim. Are people like me particularly likely to be a victim?), the perceived impact of victimisation (What happens if I become a victim? How do I cope with this?) and the sense of of control over these uncertain events (Can I avoid situations in which I would become a victim? Could I cope with any problems if arise?).

While recent studies have questioned whether this is partly because men suppress the extent of their concerns, compared to women, men may be less willing to express their fears and worries (Jackson, 2009). Debates about fear among women remain relevant. A similar discussion has addressed the relationship between fear and age. Studies have shown that older people tend to report feeling safer running errands in their neighborhood after dark than younger people (Jackson, 2009). While surveys that ask individuals questions about their worries about specific types of crime often find that the relationship between age and fear varies. A

common response to the charge of irrationality is that those groups who express the greatest concern (for example, women and the elderly) actually have a greater perceived vulnerability to victimization and its more serious outcomes. So the argument is not this one, that women (or the elderly) have a false sense of danger and an irrational level of fear. Instead, women/older people are more vulnerable to the consequences of victimization than men/younger people and less able to control their occurrence. Perhaps they may feel less able to physically defend themselves? They may associate one of the crimes with the prospect of another more serious crime. In fact, empirical evidence has supported the idea that women have greater levels of fear heightened in perceptions of personal vulnerability when vulnerability is defined as the perception of a serious crime or sexual assault (Jackson, 2009).

For several years now, our society has struggled to define the concept of fear of crime. Debates have arisen as to how this concept should be defined. Many experts argue that fear of crime should be conceptualised as an emotion. Others think as a measure of risk. Mačkinová (2020, p. 11) say , „however, defimate should be the work of practitioners. They are important their skills, professional qualifications, their passion for the cause and last but not least their ability to cooperate and collaborate with all stakeholders." For many centuries the concept has been defined as risk. In other words, how likely a person is to become a victim of a particular crime. Many researchers think that fear of crime should be defined as an emotional response to potential victimization. While perceived risk should be defined as the likelihood of risk of victimization.

What is the fear of crime? We can also define it as an emotional reaction characterised by feelings of anxiety and danger. This definition is limited to the feeling of danger and anxiety caused by a sense of physical threat. If we want develop the concept of fear of crime, fear must be triggered by perceived changes in the environment concerning some aspect of crime. To link fear and potential physical harm, we must distinguish the reaction triggered by the potential loss of property from the reaction triggered by the potential physical harm. Also, the former reaction is more cerebral and calculating and the latter reaction is emotional and autonomous, we can assume that the internal state of a person who forgets to lock his bike outside his house is different from the internal state of a person who goes alone at night on a dark street with no lights at 3:00 in the morning. This does not mean, however, that the potential fear of loss of property cannot trigger fear. If the property or thing is in a person's possession and threatened or stolen and has monetary value, especially if it also has moral and personal value, then we can speak of a fear of theft or theft. This may sufficiently affect the physical well-being of a person who has been deprived of his property. We can also mention theft of property, which includes physical harm. Here various other other factors, such as groups of people who commit different types of crimes when potential confrontation with the perpetrator. In this sense of the word, we can take the perpetrator can be understood as someone who considers himself to be a stranger whose predatory behaviour is related to with property and leads to the suspicion that there is a potential opportunity to use of violence, should it be necessary. From this we can infer that burglary may trigger a greater fear than simple theft, such as stealing a bicycle from the front of a house.

In general, we can assume that perceptions of risk and restricted behaviour predict our potential fear of crime. From this we can infer that emotion (in this case fear of crime), risk probability (perceived risk) and behaviour (constrained behaviour) work closely together and build on each other. However, a large number of people hold that behaviors, restricted behaviors, are or may be a consequence of fear of crime. We are talking about cases such as when an individual installs a CCTV system before he or she can become a victim of a crime. In this case, the possibility is that such a group of people are thinking more often about the fact that they may become a victim of crime.

Any explanation of the concept of fear, includes the concept of vulnerability. In general terms, it refers to people who are unable to protect themselves, either because they are not physically fit, or lack the strength to repel an attacker's assault, or cannot economically afford to protect their homes. Another reason may be their long-term difficulty in recovering from such an attack, either materially or physically. Thus, as stated by

Mačkinová and authors (2017, p. 64), „bodily harm is an injury to the health of another person, but it must have a certain intensity." For such a reason, we can assume that such people anticipate the fear of crime more than others who do not have the experience of being a victim of crime. Based on this, we can talk about three groups that fall into this category. These are women, the elderly and the poor. Fear depends on three key factors. One of them is exposure to non-negligible risk. The second factor is loss of control (lack of effective defences and protective measures, possibility of escape) and the third is anticipation of serious consequences. These three factors can also work independently of each other. There can also be bidirectional relationships such as the experience of fear of crime, which can itself influence perceptions, we can see more criminal situations and feelings that make a person feel more helpless.

### Time perspective

Time perspective Einstein's theory of relativity established the subjective nature of the physical phenomenon of time. The importance of a psychological interpretation of this relative phenomenon has been a source of debate among philosophers, psychologists, and physical scientists. Time tracking may be a fundamental function of human development that is vital in the development of human cognitive function (Zimbardo & Boyd, 2015). Kant, believed that the temporal conception is an innate ability. He argued that it richly colored the way people experience the world (Zimbardo & Boyd, 2015).

William James defended the notion of time as being fundamental to psychology, devoted time perception in the principles of psychology. With the later behaviorist revolution the focus was narrowed, namely on the time-based consequences of behavior and experience. This view, however, was rejected by Kurt Lewin, whose views are more compatible with views of existential philosophers (Stolarski, 2015).

Lewin's model of living space includes the influence of the past and the future on the present behaviour. Lewin defined time perspective as the totality of an individual's views of his psychological future and the psychological past existing at a given time (Zimbardo & Boyd, 2015). Such an integrative view of all time frames in the present is similar to Eastern Zen notions of time, which are more circular and contradict to the traditional Western view in which time passes at a constant, linear pace, never to be reversed.

Joshep Nuttin promoted Levin's time-filled living space, where future and past events influence present behavior to the extent that they are actually present at the cognitive level of functioning and behavior (Zimbardo & Boyd, 2015). Contemporary social-cognitive thinking, as represented in Albert Bandura's self-efficacy theory, supports a tripartite temporal influence on behavioral self-regulation that generated by credible efficacies based on past experiences, current evaluations, and considerations of future possibilities.

Behavioral gerontologist Laura Carstensen and her colleagues have suggested that the perception of time plays a fundamental role in the selection and monitoring of social goals with significant impact on emotion, cognition, and motivation. Yet, the study of psychological of time generally languishes on the shores of mainstream contemporary psychology.

Temporal perspective-taking is often an unconscious process in which there are continuous flows of personal and social experiences. They are assigned to temporal categories or time frames that help give order, coherence, and meaning to events. These cognitive frames may reflect cyclical, recurring temporal patterns or unique non-repetitive linear events in human life (Zimbardo & Boyd, 2015). They are used in encoding, storing, and recalling events, as well as in creating expectations, goals, contingencies, and imaginative scenarios. Between abstract, psychological constructions of the past and anticipated future events lie concrete, experientially centered representations of the present. Temporal perspectives influence many important decisions, beliefs, and actions.

The dominant influence for some comes from the past, from recalling analogous previous situations with the memory of the costs and benefits involved in those decisions. Their recollection may be nostalgic and positive or ruminative, traumatic and negative. They may remember accurately or distort the past. Such a focus on the past can greatly influence the interpretation of and response to the present decision situation, even dominate its intrinsic stimulus. Other influential forces of this hypothetical decision, come from expectations

constructed to include an extension of the present into the future, where the calculated costs of this present action are factored in or rewards are added. The decision process may involve the creation of alternative goal states, means-ends relationships, and probabilistic assessments of both desired components and actual constraints, as well as issues such as weighing anticipated beneficial consequences against longer-term estimated costs. In both cases, the abstract cognitive processes of reconstructing the past and constructing the future function to influence current decision making, enabling the person to overcome compelling incentive forces in immediate life spaces and delay apparent sources of gratification that could lead to undesirable consequences.

When a tendency develops, it usually overemphasizes one of these three time frames in decision making, serving as a cognitive temporal "bias," an orientation to past, future, or present. When chronically present, this bias becomes a dispositional style or individual difference variable that is characteristic and predicts how an individual will respond to a range of everyday life decisions. Individuals, of course, use these temporal orientations to varying degrees and each orientation can lead to optimal decision making in particular situations. Temporal "biases" can include either habitual overuse or incorrect use of one or more of these time frames. Such limiting biases contrast with a balanced temporal orientation, an ideal mental structure, that allows individuals to flexibly switch time frames between the past, future and present depending on situational demands, resource assessments or personal and social evaluations. The behaviour of people with such a temporal orientation would would, on average, be determined by a trade-off or balancing of meta-schematic content representations of past experiences, present desires, and future consequences. Therefore, we can consider time perspective as a situationally determined and relatively stable process of individual differences. Overreliance on specific time frames is multiply determined by many learned factors. Among the most significant include cultural, educational, religious, social class, and family modeling. The operation of time perspective is so extensive in human lives and is multiple determined. People are rarely aware of its subtle operation, influence or predictability. This construct provides the foundation upon which many visible constructs such as goal attainment and setting, risk taking, seeking perception, addiction, survival, guilt, and others.

The time perspective is therefore an important phenomenon. Since it ascribes meaning to events, it is also involved in the anticipation of phenomena and their subsequent processing. Over time, humans have gradually developed a kind of mental shortcuts, otherwise known as heuristics, that facilitate their perception and consequently speed up the processing of information from the environment. Heuristics are based on the previous experience of the person in question or on the experience of a social group that develops a kind of prejudice, or a kind of judgment on a given phenomenon, and when phenomena of a similar nature occur, the individual uses the given behavior that was used and evaluated as correct in the first experience with the phenomenon either by the individual or by the group from the opinion was taken.

Gonzalez and Zimbardo (1985) believed that the way we try to divide time is a stronger characteristic of human experience. Zimbardo et al. define temporal perspective as the way individuals and different cultures divide human experience into different temporal categories such as past, present, and future (Zimbardo et al., 1997). When they sought to examine past, present, and future frames more thoroughly, they developed a scale to measure time perspective. This scale contains past, present, and future frames divided into five subscales. First, there is the negative past frame, which reflects a pessimistic attitude toward the past and the possible experience of traumatic life events. Second, there is the positive past, which is more optimistic and has a positive view of the past. Third is the hedonistic present. Associated with this third subscale is a desire for spontaneous pleasure with a slight regard for risk or concern about future consequences. Fourth, there is the fatalistic present subscale. It is characterized by a lack of hope for the future and a belief that uncontrollable forces determine fate. The final fifth subscale, called the future, is defined as reward dependence that occurs as a result of the achievement of long-term goals.

We can say that fear of crime is an emotional response to danger signals in the environment we are in. Psychological factors include concepts such as alienation and anomie, degree of social change, pessimism about the future, perceived lack of control over life events, and dissatisfaction with one's surroundings. There is potential causal ambiguity in behavioral measures of fear. It is more likely that psychological attributes are a consequence of fear. In general, there is a weak relationship between social psychological factors and fear of crime.

### Fear of crime and time perspective

Fear is a natural reaction to physical or psychological danger in every person. The roots of fear go back to the ancient past and is part of human evolution. If humans did not feel fear, they could not protect themselves from threats that were on the border of life and death. Nowadays, people fear situations in which, although the consequences are sometimes much lower, the human being is still set up to consider any threat as lethal due to the generation of a genetic code that is inherited from generation to generation.

Fear of crime, or fear as an emotion, depends on several factors. These factors are involved in the expectation of the development of a given situation. Optimism is one of the factors influencing expectations of future events. Optimism is an attributional style of perception, based on which a person expects a situation to develop positively. People with such expectations are optimistic. The counterpart to optimism is pessimism. Pessimists do not expect the situation to develop favourably or positively; on the contrary, they expect the situation to turn out badly or against them. Which attributional style a person prefers also depends on the situation and also on the person's experience. Mačkinová and Musilová (2017, p. 98) cite socialization as a supportive element. „Person in the process of its development intensifies knowledge, skills, norms, rules, attitudes, habits, etc., which are in force in the present social and cultural environment and which are inculcate to him/her especially by education."

The disposition with which a person enters a situation also influences his or her expectations about crime. An optimistic person will not expect so much to be a victim of any crime. In contrast, a pessimistic person will expect only the worst from a situation. Closely related to optimism is hope. Hope refers to the expectation of a positive turn of events. Like optimism, not all people have it to the same degree. The extent to which a person expects a situation to turn out positively, or the extent to which a person feels hopeful, depends on the situation, the person's experience, and also the people around him or her. A hopeful person, like an optimistic person, expects the situation to develop positively. The last factor or construct influencing fear of crime is time perspective. Time perspective as a construct is perceived as previous experience with crime. One possibility is that people who have had some prior experience with crime will be more sensitive in their perception of fear of crime.

We suggest that hope also plays a role in the concept associated with fear of crime. On the basis of hope, one experiences and anticipates events in one's environment and subordinates one's behaviour on this basis. Hope, as a kind of assessment of coping ability, influences action, even though the subjective assessment of coping ability may not be directly proportional to actual ability. This already depends on the insight of the person concerned, to what extent he or she is aware of his or her abilities and to what extent he or she underestimates, overestimates or accurately assesses them. The aim of this study is to prove whether these factors are indeed significantly involved in the prediction of fear of crime.

### Research

The main aim of the study is to empirically investigate the relationship between fear of crime and a dispositional construct related to future expectancy, as well as subjective perceptions of the past, present and future, captured in the construct of time perspective. A secondary aim is to examine the role of selected demographic variables in fear of crime. We present the theoretical underpinnings of our hypotheses under each hypothesis separately.

**Hypothesis 1:** *We hypothesize that women will have a greater fear of crime than men and across all components.*

Based on the theoretical background of Reyes-Sos and Molina-Coloma (2018), who emphasized that women exhibit higher levels of fear compared to men. This may be due to the fact that they are anxious and aware that they are more likely to be

victims of crime and believe that they have less control over crime and feel that the consequences of crime may affect the group they belong to.

**Hypothesis 2a:** *We hypothesize that there will be a relationship between the negative past and the components of the fear of crime construct:*

**1.** a positive relationship in the fears component,

**2.** a positive relationship in the part focusing on the perceived likelihood of personal crime,

**3.** a negative relationship in the part focused on perceived control over personal criminality,

**4.** a positive relationship in the section focusing on perceived consequences of personal criminality.

**Hypothesis 2b:** *We hypothesize that there is a significant relationship between the positive past history scale and the components of the fear of crime construct will be:*

**1.** a negative relationship in the fear-focused part,

**2.** a negative relationship in the focusing on the perceived likelihood of personal criminality,

**3.** a positive relationship in the part focused on perceived control over personal criminality,

**4.** a negative relationship in the focusing on perceived consequences of personal criminality.

**Hypothesis 2c:** *We hypothesize that there will be a relationship between the fatalistic presence scale and the components of the fear of crime construct:*

**1.** a positive relationship in the fear-focused component,

**2.** a positive relationship in the part focusing on the perceived likelihood of personal criminality,

**3.** a negative relationship in the part focused on perceived control over personal criminality,

**4.** a positive relationship in the section focusing on perceived consequences of personal criminality.

**Hypothesis 2d:** *We hypothesize that there will be a relationship between the hedonistic presence scale and the components of the fear of crime construct:*

**1.** a negative relationship in the fear-focused component,

**2.** a negative relationship in the part focusing on the perceived likelihood of personal crime,

**3.** a positive relationship in the part focused on perceived control over personal criminality,

**4.** a negative relationship in the section focusing on perceived consequences of personal criminality.

**Hypothesis 2e:** *We hypothesize that there will be a relationship between the future scale and the components of the fear of crime construct:*

**1.** a negative relationship in the fear-focused part,

**2.** a negative relationship in the part focusing on the perceived likelihood of personal crime,

**3.** a positive relationship in the part focused on perceived control over personal crime,

**4.** a negative relationship in the section focusing on perceived consequences of personal criminality.

## Sample of respondents and statistical processing

The participants of the conducted empirical research were individuals of both genders, with the mean age of the respondents being around 30 years. Although we did not address age variations in the study, we focused on the differences between men and women. The total number of participating respondents came to 168, with an almost even gender distribution of 79 females and 89 males.

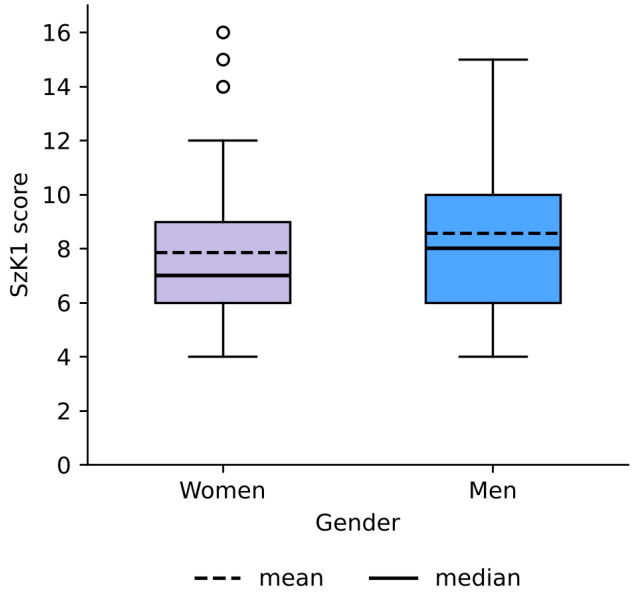
The methods we used in that study were the Zimbardo Time Perspective Inventory (ZTPI) (Kosht'ál, Lukavský, Zimbardo, & Klicperova-Baker 2011), which aims to ascertain how oriented a person is to past experiences, current stimuli, and expected consequences. As a final method, we used the Fear of Crime Scale (Reyes-Sosa, Molina-Coloma 2018).

## Results

In the first hypothesis, we predict that women will have a greater fear of crime, across all parts of it. We used the Mann-Whitney U test to process the data. From the results, we found that there is a statistically significant difference between genders only in 3 parts of the fear of crime construct, namely the fear of crime part (U=2808.00 and p= 0.02), the perceived control part (U=2839.00 and p= 0.03), and the perceived consequences of personal crime part (U=2045.50 and p= 0.00). There was no statistically significant difference between genders in the section focusing on perceived likelihood of personal criminality (U=3411.00 and p= 0.74). As can be seen in the graph, males scored higher in the section focusing on worry (Picture 1) and in the section focusing on perceived control over personal criminality (Picture 2). From this we can conclude that men are more worried about crime than women, but they also perceive higher control over

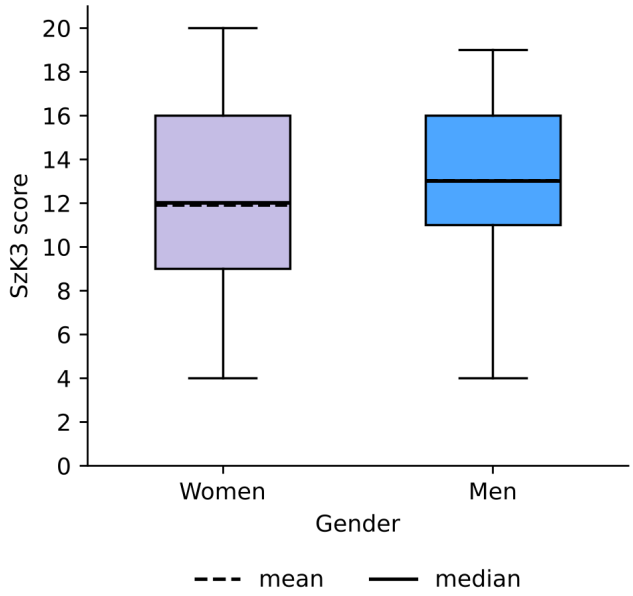
personal crime. As for the section focusing on the perceived consequences of personal criminality, women score higher there (Picture 3). This suggests that women feel that their experience of crime would have a greater impact on their lives than men. Thus, we cannot confirm our first hypothesis, as women score significantly higher on only one part of the fear of crime construct, the consequence-focused part.

**Figure 1** Box plot of individual gender scores on the worry (fear of crime) portion of the fear of crime construct (SzK1)



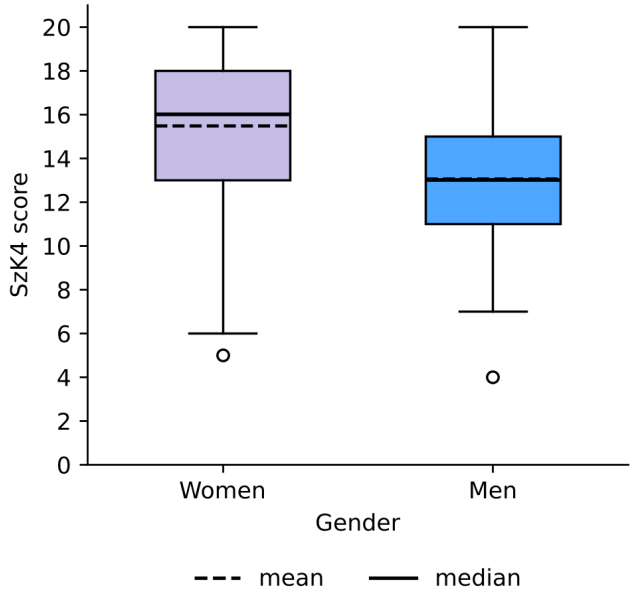

Women: mean = 7.85; median = 7; SD = 2.82. Men: mean = 8.56; median = 8; SD = 2.49.

**Figure 2** Box plot of individual gender scores on the perceived control over personal criminality portion of the fear of crime construct (SzK3)




Women: mean = 11.92; median = 12; SD = 4.30.
Men: mean = 13.04; median = 13; SD = 3.38.

**Figure 3** Box plot of individual gender scores on the perceived consequences of personal crime portion of the fear of crime construct (SzK4)




Women: mean = 15.49; median = 16; SD = 3.48.
Men: mean = 13.08; median = 13; SD = 3.11.

The second hypothesis focuses on time perspective and its effect on fear of crime. We have also divided the hypothesis into several parts,

namely part A concerning the negative past scale, part B concerning the positive past scale, part C concerning the fatalistic present scale, part D concerning the hedonistic present scale, and part E concerning the future scale.

The following sections focus on part A of the fourth hypothesis, which is the negative past scale. In the first part, we hypothesize a positive relationship between the negative past and the worry-focused part. Rs= -0.16 and p=0.04. The regression values are F(1, 166)= 5.90, p<0.05, R2= 0.06. Based on the alpha error (Table 1), we conclude that there is a negative linear relationship between these variables. Our part of the hypothesis is not consistent with our data. There is a negative linear relationship between the negative past scale of the time perspective construct and the fear of crime portion of the fear of crime construct. That is, the higher respondents score on the negative past, the lower they score on the fear-focused portion. The negative past scale of the time perspective construct predicts 6.5% of the variability of the fear of crime-focused worry construct.

**Table 1** Values of the linear regression between the negative past scale of the time perspective construct and the part focusing on fear of crime

| Model | B | Standard deviation | t | Sig. |
|---|---|---|---|---|
| **Constatnt** | **9,65** | **0,62** | **15,56** | **0,00** |
| Negative past | -0,16 | 0,07 | -2,43 | 0,02 |

In the second part, we hypothesize a positive relationship between the negative past scale and the part focusing on the perceived likelihood of personal criminality. Rs= 0.02 and p=0.84. The regression values are F(1, 166)=0.07, p>0.05, R2= 0.00. The value of the regression coefficient is equal to -0.02. Based on the alpha error (Table 2), we can conclude that although the relationships between the variables are negative, they are not linear. This part of the hypothesis is not consistent with our data. There are negative relationships between the negative past history scale and the part focusing on the perceived likelihood of personal criminality, but they are not linear.

**Table 2** Values of the linear regression between the negative past scale of the time perspective construct and the part focusing on the perceived likelihood of personal criminality

| Model | B | Standard deviation | t | Sig. |
|---|---|---|---|---|
| **Constatnt** | **11,58** | **0,72** | **16,09** | **0,00** |
| Negative past | -0,2 | 0,08 | -0,26 | 0,79 |

In the third section, we hypothesize a negative relationship between the negative past scale and the section focusing on perceived control over personal criminality. Rs= -0.12 and p= 0.13. The regression values are F(1, 166)= 2.14, p > 0.05, R2= 0.01. The value of the regression coefficient is -0.14. According to the alpha error (Table 3), we conclude that the relationships between the variables are not linear. This part of the hypothesis is not consistent with our data. There is a negative relationship between the negative past scale of the time perspective construct and the part focusing on perceived control over personal criminality of the fear of crime construct, but it is not linear.

**Table 3** Values of the linear regression between the negative past scale of the time perspective construct and the perceived control over personal criminality construct

| Model | B | Standard deviation | t | Sig. |
|---|---|---|---|---|
| **Constatnt** | **13,78** | **0,92** | **15,14** | **0,00** |
| Negative past | -0,14 | 0,1 | -1,46 | 0,15 |

In the fourth section, we hypothesize a positive relationship between the negative past scale and the section focusing on the perceived consequences of personal criminality. Rs= -0.11 and p= 0.16. The regression values are F(1, 166)= 4.37, p< 0.05, R2= 0.02. According to the alpha error (Table 4), we can say that the relationships between the variables are positive and linear. This part of the hypothesis is not consistent with our data. The higher the scores of respondents on the negative past scale of the time perspective construct, the lower their scores on the part of the fear of crime construct focusing on the perceived consequences of personal criminality. The negative past scale of the time perspective construct predicts 2.0% of the variability in fear of crime focused on the perceived consequences of personal criminality.

**Table 4** Values of the linear regression between the negative past scale of the time perspective construct and the part focusing on the perceived consequences of personal criminality

| Model | B | Standard deviation | t | Sig. |
|---|---|---|---|---|
| **Constatnt** | **15,83** | **0,82** | **19,38** | **0,00** |
| Negative past | -0,18 | 0,09 | -2,09 | 0,04 |

The following sections focus on part B of the second hypothesis, which is the positive past scale. In the first part, we hypothesize a negative relationship between the positive past and the worry-focused part. The value of Rs= -0.22 and p=0.00. The regression values are F(1, 166)= 6.57, p<0.05, R2= 0.03. The regression coefficient shown in the table (Table 5) has a negative value. Based on the alpha error, we can say that the relationships between the variables have a negative linear relationship. The first part of the hypothesis is consistent with our data. It implies that the higher the scores of respondents on the positive past scale, the lower the scores of respondents on the fear of crime part of the fear of crime construct. The positive past scale of the time perspective construct predicts 3.8% of the variability of the fear of crime-focused worry construct.

**Table 5** Linear regression values between the positive past scale of the time perspective construct and the fear of crime part of the fear of crime construct

| Model | B | Standard deviation | t | Sig. |
|---|---|---|---|---|
| **Constatnt** | **10,21** | **0,80** | **12,76** | **0,00** |
| Positive past | -0,19 | 0,07 | -2,56 | 0,01 |

In the second part, we hypothesize a negative relationship between positive past history and the part focusing on the perceived likelihood of personal criminality. Rs= -0.07 and p= 0.34. The regression values are F(1, 166)= 1.19, p > 0.05, R2= 0.01. The regression coefficient shows a value of -0.09. The alpha error (Table 6) tells us that although the relationships between the variables are negative, they are not linear. Thus, part of the hypothesis is not consistent with our data.

**Table 6** Values of the linear regression between the positive past construct time perspective scale and the part focusing on the perceived likelihood of personal criminality

| Model | B | Standard deviation | t | Sig. |
|---|---|---|---|---|
| **Constatnt** | **12,39** | **0,93** | **13,36** | **0,00** |
| Positive past | -0,09 | 0,08 | -1,09 | 0,28 |

In the third part, we hypothesize a positive relationship between positive past history and the part focusing on perceived control over personal criminality. Rs= -0.29 and p= 0.00. The regression values are F(1, 166)= 16.92, p< 0.05, R2= 0.08. According to the alpha error (Table 7), we can conclude that the relationships between the variables are negative and linear. This part of the hypothesis is inconsistent with our data, and thus the higher the scores respondents achieve on the positive past scale, the higher their scores on the part of the fear of crime construct focused on perceived control over personal criminality. The positive past scale of the time perspective construct predicts 8.7% of the variability of the fear of crime construct focused on perceived control over personal criminality.

**Table 7** Values of the linear regression between the positive past scale of the time perspective construct and the part focusing on perceived control over personal criminality

| Model | B | Standard deviation | t | Sig. |
|---|---|---|---|---|
| **Constatnt** | **17,01** | **1,13** | **15,08** | **0,00** |
| Positive past | -0,42 | 0,10 | -4,11 | 0,00 |

The fourth part assumes a negative relationship between the positive past and the part focusing on the perceived consequences of personal criminality. Rs= 0.17 and p=0.03. The regression values are F(1, 166)=4.39, p<0.05, R2= 0.02. The value of the regression coefficient is positive and is presented in the table (Table 8). The alpha error tells us that the relationship between these variables is linear and positive. This part of the hypothesis is not consistent with our data. That is, the higher respondents score on the positive past history scale, the higher they score on the fear of crime section, which focuses on the perceived consequences of personal criminality. The positive past scale of the time perspective construct predicts 2.6% of the variability in fear of crime focused on the perceived consequences of personal criminality.

**Table 8** Values of the linear regression between the positive past construct time perspective scale and the part focusing on the perceived consequences of personal criminality

| Model | B | Standard deviation | t | Sig. |
|---|---|---|---|---|
| **Constatnt** | **12,07** | **1,06** | **11,44** | **0,00** |
| Positive past | 0,20 | 0,10 | 2,10 | 0,04 |

The following sections focus on part C of the second hypothesis, which is the fatalistic presence scale. In the first part, we hypothesize that there will be a positive relationship between the fatalistic presence scale and the part focusing on fear of crime. Rs= 0.02 and p= 0.84. The regression values are F(1, 166)= 0.19, p > 0.05, R2= 0.06. The value of the regression coefficient is 0.03. Based on the

alpha error (Table 9), we can conclude that the relationships between the variables are positive but not linear. Part of the hypothesis is inconsistent with our data Thus, if respondents had high scores on the fatalistic presence scale, they also had high scores on the fear of crime part of the fear of crime construct focusing on fear of crime.

**Table 9** Values of the linear regression between the fatalistic presence of time perspective construct scale and the part focusing on fear of crime

| Model | B | Standard deviation | t | Sig. |
|---|---|---|---|---|
| **Constatnt** | **7,72** | **1,19** | **6,49** | **0,00** |
| Fatalistic presence | 0,33 | 0,08 | 0,43 | 0,67 |

The second part focuses on the assumption that there will be a positive relationship between the fatalistic presence scale and the part focusing on the perceived likelihood of personal criminality. Rs= 0.14 and p= 0.07. The regression values are F(1, 166)= 2.47, p > 0.05, R2= 0.02. The regression coefficient is 0.14. According to the alpha error (Table 10), we can conclude that the relationship between the variables is not linear and is positive. This means that this part of the hypothesis is not consistent with our data. Thus, if respondents had high scores on the fatalistic presence scale, they also had high scores on the part of the fear of crime construct focusing on the perceived likelihood of personal criminality, but this relationship is not linear.

**Table 10** Values of the linear regression between the fatalistic presence construct time perspective scale and the part focusing on the perceived likelihood of personal criminality

| Model | B | Standard deviation | t | Sig. |
|---|---|---|---|---|
| **Constatnt** | **9,32** | **1,35** | **6,92** | **0,00** |
| Fatalistic presence | 0,14 | 0,09 | 1,57 | 0,12 |

In the third part, we hypothesize a negative relationship between fatalistic presence and the part focusing on perceived control over personal criminality. Rs= 0.11 and p= 0.16. The regression values are F(1, 166)= 1.12, p > 0.05, R2= 0.01. The regression coefficient is 0.12. Based on the alpha error (Table 11), we conclude that the relationship between fatalistic presence and the fear of crime part of the construct is a positive relationship, but it is not linear. This part of the hypothesis is not consistent with our data.

**Table 11** Values of the linear regression between the fatalistic presence construct time perspective scale and the section focusing on perceived control over personal criminality

| Model | B | Standard deviation | t | Sig. |
|---|---|---|---|---|
| **Constatnt** | **10,72** | **1,72** | **6,23** | **0,00** |
| Fatalistic presence | 0,12 | 0,11 | 1,06 | 0,29 |

In the fourth section, we hypothesize a positive relationship between fatalistic presence and the section focusing on the perceived consequences of personal criminality. Rs= -0.07 and p= 0.35. The regression values are F(1, 166)= 0.34, p > 0.05, R2= 0.00. The value of the regression coefficient is -0.06. The alpha error shown in the table (Table 12) tells us that the relationships between the variables are not linear. These relationships are negative that is, this part of our hypothesis is not consistent with our data. Thus, if a respondent scores high on the fatalistic presence scale, he or she also scores high on the part of the fear of crime construct focusing on the perceived consequences of personal crime.

**Table 12** Values of the linear regression between the fatalistic presence of time perspective construct scale and the part focusing on the perceived consequences of personal criminality

| Model | B | Standard deviation | t | Sig. |
|---|---|---|---|---|
| **Constatnt** | **15,11** | **1,56** | **9,70** | **0,00** |
| Fatalistic presence | -0,06 | 0,10 | -0,58 | 0,56 |

The following sections are devoted to part D of the second hypothesis, which is the hedonistic presence scale. The first part hypothesizes a negative relationship between the hedonistic presence scale and the worry-focused part. Rs= -0.08 and p= 0.33. The regression values are F(1,166)= 0.99, p > 0.05, R2= 0.01. The associated regression coefficient value is -0.07. The alpha error shown in the table (Table 13) indicates that although the relationship is negative, it is not linear. This part of the hypothesis is not consistent with our data. If respondents score high on the hedonistic presence scale, they will also score high on the fear of crime part of the fear-focused construct, but this is not a linear relationship.

**Table 13** Values of the linear regression between the hedonistic presence construct time perspective scale and the part focusing on fear of crime

| Model | B | Standard deviation | t | Sig. |
|---|---|---|---|---|
| **Constatnt** | **8,92** | **0,73** | **12,24** | **0,00** |

| Model | B | Standard deviation | t | Sig. |
|---|---|---|---|---|
| Hedonistic presence | -0,07 | 0,07 | -0,99 | 0,32 |

In the second part, we hypothesize a negative relationship between hedonistic presence and the part focusing on the perceived likelihood of personal criminality. The associated Rs=-0.18 and p=.02. The regression values are F(1, 166)= 5.76, p < 0.05, R2= 0.03. According to the alpha error value (Table 14), we can say that the relationship between these variables is linear and negative. This part of the hypothesis is consistent with our data. Thus, the higher the respondent's score on the hedonistic presence scale, the lower his score on the part of the fear of crime construct focusing on the perceived likelihood of personal crime. The hedonistic presence scale of the time perspective construct predicts 3.4% of the variability of the fear of crime construct focused on the perceived likelihood of personal criminality.

**Table 14** Linear regression values between the hedonistic presence construct time perspective scale and the part focusing on perceived likelihood of personal criminality

| Model | B | Standard deviation | t | Sig. |
|---|---|---|---|---|
| **Constatnt** | **13,29** | **0,82** | **16,21** | **0,00** |
| Hedonistic presence | -0,20 | 0,08 | -2,40 | 0,02 |

In the third part, we hypothesize a positive relationship between hedonistic presence and the part focusing on perceived control over personal criminality. Rs= -0.18 and p= 0.02. The regression values are F(1, 166)= 6.9, p < 0.05, R2= 0.04. According to the alpha error (Table 15), we can say that the relationship between these variables is linear but negative. Our part of the hypothesis is not consistent with our data. Thus, proportionally, as scores on the hedonistic presence scale increase, scores on the part of the fear of crime construct focusing on perceived control over personal criminality decrease. The hedonistic presence scale of the time perspective construct predicts 4.0% of the variability of the fear of crime construct focused on perceived control over personal criminality.

**Table 15** Values of the linear regression between the hedonistic presence construct time perspective scale and the section focusing on perceived control over personal criminality

| Model | B | Standard deviation | t | Sig. |
|---|---|---|---|---|
| **Constatnt** | **15,14** | **1,04** | **14,56** | **0,00** |
| Hedonistic presence | -0,28 | 0,11 | -2,63 | 0,01 |

In the fourth section, we hypothesize a negative relationship between hedonistic presence and the section focusing on the perceived consequences of personal criminality. The associated Rs= -0.05 and p= 0.56. The regression values are F(1, 166)= 0.65, p > 0.05, R2= 0.00. The value of the regression coefficient is -0.08. Based on the alpha error (Table 16), we conclude that although the relationships between the variables are negative, they are not linear. This part of the hypothesis is not consistent with our data.

**Table 16** Values of the linear regression between the hedonistic presence construct time perspective scale and the part focusing on the perceived consequences of personal criminality

| Model | B | Standard deviation | t | Sig. |
|---|---|---|---|---|
| **Constatnt** | **14,95** | **0,96** | **15,63** | **0,00** |
| Hedonistic presence | -0,08 | 0,10 | -0,81 | 0,42 |

The following sections are devoted to the last part E of the second hypothesis, which is the future scale. Part one hypothesizes a negative relationship between the future and the part focusing on fear of crime. Rs= -0.2 and p= 0.01. The regression values are F(1, 166)=0.65, p < 0.05, R2= 0.03. The value of the regression coefficient is reported in the table (Table 17) and is in the negative. The alpha error tells us that there is a linear and negative relationship between the variables. This part of the hypothesis is consistent with our data. The higher respondents score on the future scale, the lower they score on the fear of crime part of the fear of crime construct. The future scale of the time perspective construct predicts 3.3% of the variability in the fear of crime-focused worry construct.

**Table 17** Linear regression values between the future of time perspective construct scale and the fear of crime part of the fear of crime construct

| Model | B | Standard deviation | t | Sig. |
|---|---|---|---|---|
| **Constatnt** | **10,19** | **0,85** | **11,98** | **0,00** |

| Model | B | Standard deviation | t | Sig. |
|---|---|---|---|---|
| Future | -0,19 | 0,80 | -2,38 | 0,02 |

In part two, we predict a negative relationship between the future and the part focusing on the perceived likelihood of personal criminality. Rs= -0.05 and p= 0.55. The regression values are F(1, 166)= 1.65, p > 0.05, R2= 0.01. The regression coefficient is equal to -0.12. According to the alpha error (Table 18), the relationship between these variables is not linear and is negative. Our part of the hypothesis is not consistent with our data.

**Table 18** Values of the linear regression between the future time perspective construct scale and the part focusing on the perceived likelihood of personal criminality

| Model | B | Standard deviation | t | Sig. |
|---|---|---|---|---|
| **Constatnt** | **12,63** | **0,98** | **12,86** | **0,00** |
| Future | -0,12 | 0,09 | -1,29 | 0,20 |

In the third section, we assume a positive relationship between the future and the section focusing on perceived control over personal crime. The value of Rs= -0.19 and p= 0.01. The regression values are F(1, 166)= 5.55, p < 0.05, R2= 0.03. Based on the alpha error (Table 19), we conclude that there is a linear but negative relationship between the variables. This part of the hypothesis is not consistent with our data. The higher individuals scored on the future scale, the lower they scored on the part of the fear of crime construct focused on perceived control over personal crime. The future of time perspective scale of the construct predicted 3.2% of the variability of the fear of crime construct focused on perceived control over personal criminality.

**Table 19** Values of the linear regression between the future of time perspective construct scale and the part focusing on perceived control over personal criminality

| Model | B | Standard deviation | t | Sig. |
|---|---|---|---|---|
| **Constatnt** | **15,34** | **1,24** | **12,42** | **0,00** |
| Future | -0,27 | 0,12 | -2,36 | 0,20 |

In the last section, we hypothesize a negative relationship between the future scale of the time perspective construct and the part of the fear of crime construct focusing on the perceived consequences of personal criminality. Rs= 0.09 and p= 0.25. Regression values are F(1,166)= 0.91, p > 0.05, R2= 0.01. The regression coefficient has a value of 0.10. The alpha error is less than 0.05 (Table 20), indicating that the relationship between the variables is not linear. The relationship that exists between them is positive, so our part of the hypothesis is not consistent with our data. This implies that if respondents had high scores on the future scale of the time perspective construct, they also had high scores on the fear of crime section focusing on the perceived consequences of personal crime.

**Table 20** Values of the linear regression between the future scale of the time perspective construct and the part focusing on perceived consequences of personal crime

| Model | B | Standard deviation | t | Sig. |
|---|---|---|---|---|
| **Constatnt** | **13,17** | **1,13** | **11,64** | **0,00** |
| Future | 0,10 | 0,11 | 0,96 | 0,34 |

These results show that men generally score higher than women on the fear of crime construct's fear of crime subscales focused on fears and perceived likelihood of personal crime, and women score higher only on the subscale focused on perceived consequences. We divided the time perspective into up to 5 scales. The scales negative past, positive past, hedonistic present, and future all have negative relationships to fear of crime. However, linearly these relationships are only for the negative past, positive past and future scales. The fatalistic present shows a positive relationship to worry however this relationship is not linear. Again, the negative past, positive past, hedonistic present, and future scales all have a negative relationship to the fear of crime portion of the perceived likelihood scale. Only for the hedonistic present scale are these relationships linear. The fatalistic present again shows a positive relationship to this part of the construct as well, but not a linear one. For the part focusing on perceived control over personal criminality, the scales negative past, positive past,

hedonistic present, and future have negative relationships to it. There is linearity only for the positive past, hedonistic present, and future scales. The fatalistic presence has a positive, but not linear, relationship to this section. As for the last part of the fear of crime construct, focusing on perceived consequences, the negative past and hedonistic present scales have a negative relationship to it, with only the negative past having a linear relationship. The other scales have a positive relationship.

**Table 21** Correlation matrix for the time perspective scales related to the parts of the fear of crime construct

| | Time perspective | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Negat. past | | Pozit. past | | Hedon. present | | Fatal. present | | Future | |
| | Rs | Sig. | Rs | Sig. | Rs | Sig. | Rs | Sig. | Rs | Sig. |
| **SzK1** | **-, 16** | **,04** | **-, 22** | **,00** | **-, 08** | **,33** | **-, 02** | **,84** | **-, 20** | **0,01** |
| SzK2 | , 02 | ,84 | -, 07 | ,34 | -, 18 | ,02 | ,14 | ,07 | -, 05 | 0,55 |
| SzK3 | -, 12 | ,13 | -, 29 | ,00 | -, 18 | ,02 | ,11 | ,16 | -, 19 | 0,01 |
| SzK4 | -, 11 | ,16 | , 17 | ,03 | -, 05 | ,56 | -, 07 | ,35 | , 09 | 0,25 |

Rs = Spearman's correlation coefficient

Sig. = significance of correlation

SzK1 = section focusing on fear of crime

SzK2 = part focusing on perceived likelihood of personal crime

SzK3 = section on perceived control over personal crime

SzK4 = part focusing on perceived consequences of personal criminality

Negat. past = negative past

Posit. past = positive past

Hedon. present = hedonistic present

Fatal. present = fatalistic presence

## Conclusion

Our central premise was the relationship between time perspective and fear of crime. We drew on research by Chadee et al. (2016), who did not show a direct relationship between the construct of time perspective and fear of crime in their research. However, our results did demonstrate a relationship. We found that there is a relationship between time perspective and fear of crime. We demonstrated this relationship based on the results we obtained. We found relationships between time perspective and fear of crime in all parts of the fear of crime construct. We found positive relationships in the negative past scale with the fear of crime part of the construct focused on the perceived consequences of personal criminality. We also found positive relationships in the positive past and hedonistic present scales with the part of the construct focusing on perceived control over personal criminality. Negative relationships came out for us in the scales negative past, positive past, fatalistic present, hedonistic present, and future. Specifically, in the sections focusing on perceived control over personal criminality, worry, perceived consequences of personal criminality, and perceived likelihood of personal criminality. We expected these results, as it is reasonable to assume that based on negative past experiences, an individual would feel incompetent to be in control of matters related to crime. Further, it was to be expected that people would be concerned about the future.

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