



ARTIGOS

Assessing Fear of Crime: Testing the vulnerability hypothesis and cultivation theory in Brazil, Portugal, and the United States

Avaliando o medo do crime: Testando a hipótese da vulnerabilidade e a teoria do cultivo no Brasil, Portugal, e Estados Unidos

Evaluación del Miedo al Crimen: Poniendo a prueba la hipótesis de la vulnerabilidad y la teoría del cultivo en Brasil, Portugal y Estados Unidos.

Thiago Gomes

Nascimento¹

orcid.org/0000-0002-2432-3117
tgn.1980@gmail.com

Cláudio Vaz Torres²

orcid.org/0000-0002-3727-7391
claudio.v.torres@gmail.com

Dália Costa²

orcid.org/0000-0001-5184-3487
daliacosta51@gmail.com

Breno Giovanni adaid-

Castro¹

orcid.org/0000-0002-9856-4263
brenoadaid@gmail.com

Henny Kamilla Ramos

de Lima¹

orcid.org/0000-0002-9946-1119
hennykamilla@gmail.com

Amanda Almeida Paiva¹

orcid.org/0000-0001-5637-3939
amandapaiva@gmail.com

Recebido em: 26 dez. 2024.

Aprovado em: 26 maio 2025.

Publicado em: 28 nov. 2025.



Este é um artigo de acesso aberto distribuído sob a licença [CC-BY 4.0](https://creativecommons.org/licenses/by/4.0/), que permite a cópia e redistribuição do material em qualquer formato e para qualquer finalidade, desde que a autoria original e os créditos de publicação sejam mantidos.

Resumo: A identificação do "medo do crime" como um problema tão grave quanto o próprio crime tem sido alvo de debates políticos e investigações científicas. Assim, o presente estudo investiga o medo do crime em três países, Brasil, Portugal e Estados Unidos, com base nas teorias da vulnerabilidade e do cultivo. Foram coletadas três amostras independentes (Brasil: $n=226$ respondentes, idade média de 24,69 anos; DP = 6,86; 61,9% mulheres; Portugal: $n=305$ respondentes, $M=19,81$ anos; DP = 2,44; 74,1% mulheres; EUA: $n=325$ respondentes, $M=36,43$ anos; DP=10,71; 54,2% homens), e aplicada uma escala de medo do crime. Procedimentos estatísticos incluíram análises fatoriais confirmatórias para avaliação da estrutura da escala, testes de invariância entre países e análises de regressão múltipla para verificar os efeitos de variáveis como gênero, idade e consumo de mídia. Os principais resultados indicam a adequação de uma medida breve que pode ser utilizada em futuros estudos no Brasil, Portugal e Estados Unidos. Além disso, os achados sugerem que Portugal apoia a teoria do cultivo. Para a hipótese de vulnerabilidade, Brasil e Portugal apresentaram relações significativas com o sexo, mas não com a idade. Nos Estados Unidos, nenhuma das hipóteses foi confirmada.

Palavras-chave: medo do crime; teoria do cultivo; hipótese de vulnerabilidade; validação de medida.

Abstract: The identification of *fear of crime* as a problem as serious as crime itself has been the subject of political debate and scientific investigation. This study explores fear of crime in three countries, Brazil, Portugal, and the United States, drawing on the theories of vulnerability and cultivation. Three independent samples were collected (Brazil: $n = 226$ respondents, $M = 24.69$ years, $SD = 6.86$; 61.9% female; Portugal: $n = 305$ respondents, $M = 19.81$ years, $SD = 2.44$; 74.1% female; USA: $n = 325$ respondents, $M = 36.43$ years, $SD = 10.71$; 54.2% male), and a fear of crime scale was administered. Statistical procedures included confirmatory factor analyses to assess the scale's structure, measurement invariance tests across countries, and multiple regression analyses to examine the effects of variables such as gender, age, and media consumption. The main findings support the adequacy of a brief measure that can be employed in future studies across Brazil, Portugal, and the United States. Furthermore, the results suggest that Portugal provides empirical support for the cultivation theory. Regarding the vulnerability hypothesis, both Brazil and Portugal showed significant associations with gender, but not with age. In the United States, neither hypothesis was confirmed.

Keywords: fear of crime; cultivation theory; vulnerability hypothesis; measurement validation.

Resumen: La identificación del miedo al delito como un problema tan grave como el propio delito ha sido objeto de debates políticos e investigaciones cien-

¹ Universidade de Brasília (UNB), Brasília, Distrito Federal, Brasil.

² Universidade de Lisboa, Lisboa, Portugal.

tíficas. El presente estudio analiza el miedo al delito en tres países —Brasil, Portugal y Estados Unidos—, basándose en las teorías de la vulnerabilidad y del cultivo. Se recolectaron tres muestras independientes (Brasil: $n = 226$ participantes, $M = 24,69$ años, $DE = 6,86$; 61,9% mujeres; Portugal: $n = 305$ participantes, $M = 19,81$ años, $DE = 2,44$; 74,1% mujeres; EE. UU.: $n = 325$ participantes, $M = 36,43$ años, $DE = 10,71$; 54,2% hombres) y se aplicó una escala de miedo al delito. Los procedimientos estadísticos incluyeron análisis factoriales confirmatorios para evaluar la estructura de la escala, pruebas de invarianza entre países y análisis de regresión múltiple para examinar los efectos de variables como género, edad y consumo de medios. Los principales resultados respaldan la adecuación de una medida breve que puede ser utilizada en futuros estudios en Brasil, Portugal y Estados Unidos. Además, los hallazgos sugieren que Portugal ofrece evidencia empírica a favor de la teoría del cultivo. En relación con la hipótesis de vulnerabilidad, Brasil y Portugal presentaron asociaciones significativas con el sexo, pero no con la edad. En Estados Unidos, ninguna de las hipótesis fue confirmada.

Palabras clave: miedo al delito; teoría del cultivo; hipótesis de vulnerabilidad; validación de la medición.

Introduction

Routinely, individuals are exposed to and consume information from the media about the most different crimes, from homicides and violent crimes to car theft and other misdemeanors. This news bombardment and the resulting feeling of insecurity are more significant in large cities, where people increasingly report being more and more suspicious and afraid. The identification of fear of crime as a problem potentially as serious as crime itself has been the target of political debates and public policies for over a decade (Greer & Reiner, 2012). Fear of crime has been an issue not only in the political scenario. Also, interest on fear of crime has motivated quite a few scientific studies; our review points out that in the United States this has been a very frequent topic of investigation (e.g., Daigle et al., 2017; Kohm, et al., 2012; Truman, 2007).

However, such scientific interest is not reciprocated in Portugal, where investigations are scarce (e.g., Silva & Guedes, 2022), and even less so in Brazil (Costa & Durante, 2019; 2021; 2022; Natal & Oliveira, 2021). Studies on fear of crime began to appear in the 1970s, especially in the United States, dissociating itself from other phenomena such as victimization (Clement &

Kleinman, 1977; Baumer, 1979; Garofalo, 1979). A decade later the first studies were published in Portugal (Andrade, 1980), with an increasing interest since then (e.g., Kuhn & Agra, 2010). Yet, in Brazil the study of fear of crime is still incipient, with just a handful publications about the topic (e.g., Costa & Durante, 2021).

In Portugal, fear of crime was progressively considered a similar construct to the 'feeling of insecurity' (Lourenço & Lisboa, 1992), identified as a diffuse psychological construction, determined by different aspects of contemporary urban life. In Brazil, the first studies associated 'fear' with 'crime' with the former being a direct consequence of the latter (Costa & Durante, 2021). In these countries, only belatedly did the studies followed the previously presented American evidence that 'fear of crime' and 'risk perception' are not necessarily linked to criminal victimization (Hale, 1996), being two different concepts. As defined by Hale (1996), fear of crime reflects the fear of being a victim of a crime rather than the actual probability of becoming a victim. In this study, we focus specifically on dispositional fear of crime, understood as a relatively stable emotional response pattern, which affects individuals' perception of safety regardless of situational or environmental conditions (Gabriel & Greve, 2003). This construct differs from situational fear, which is transient and context-dependent.

Since then, empirical investigations are justified by the growing awareness that the consequences of fear can go beyond feelings of personal anxiety, with the notion of fear of crime being understood as a major social problem (Gainey et al., 2011). Fear of crime interferes negatively with the individual's quality of life by making people avoid public spaces considered by them to be dangerous, or by encouraging public policies that favor punishments and intensified unnecessary surveillance (Mueller & Roeder, 2014). Empirical investigations on the topic may also stimulate a political debate based on evidence. Existing literature already allowed us to assume that it can produce harmful social consequences (Kohm et al., 2012), reducing

collective protection behaviors, and increasing the levels of actual criminal activity due to the removal of fearful people from certain areas or public spaces. This detrimental effect of fear of crime is responsible for restricting socialization and social exchanges, hence reducing the prevention of informal social control (Dobbs et al. 2009; Gainey et al., 2011; War, 2000).

Further, with the preponderant role and ubiquity of mass media in contemporary societies might be responsible for proliferating a miscommunication about crime (Costa & Durante, 2021) increasing individual's experience of fear of crime, simply guided by audience and competition criteria. In addition to problems related to a damage to self-confidence or deteriorous social relationships, fear of crime encourages prevention strategies developed upon information that was not scientifically assessed (Greer & Reiner, 2012). Fear of crime does not represent the real danger, nor does it reflect the actual frequency of crime occurrence (Frevel, 1998).

Based on this context, the present study aims to: (1) test the factorial structure of a brief scale to measure fear of crime; (2) assess the measurement invariance of the instrument across samples from Brazil, Portugal, and the United States; and (3) investigate the effects of demographic variables, namely gender, age, and media exposure, on dispositional fear of crime. These hypotheses are grounded in the theoretical frameworks of the vulnerability hypothesis and the cultivation theory.

Fear of Crime, Cultivation Theory, and Vulnerability Hypothesis

Fear of crime (FoC) has diverse definitions. Some scholars argue it refers only to emotions tied to crime objects (Hale, 1996), while others broaden it to include cognitive risk assessments and protective behaviors like avoiding walking alone at night (Gabriel & Greve, 2003). In Portugal, FoC is conceptualized as feelings of insecurity, encompassing emotional (fear), cognitive (risk perception), and behavioral (security measures) dimensions (Agra, 2007). This framework aligns

with the notion of distinguishing between productive and counterproductive fears to understand protective behaviors better (Gray et al., 2011).

The literature, building on the foundational work of Gabriel and Greve (2003), reinforces the conceptualization of fear of crime as an attitudinal construct composed of cognitive, affective, and behavioral dimensions (Farrall et al., 2019; Jackson & Kuha, 2015). The cognitive component reflects perceptions of risk or threat, the affective dimension refers to emotional responses such as anxiety or fear, and the behavioral aspect includes avoidance strategies and preventive measures. These facets are not merely theoretical but have direct implications for measurement: the cognitive dimension guides risk appraisal, the affective captures subjective distress, and the behavioral maps coping actions in daily routines (Natal & Oliveira, 2021). The scale employed in the present study reflects this tripartite model by incorporating items that assess fear in specific contexts (e.g., alone at night, at home, in public) and behavioral adaptations (e.g., limiting movements, acquiring protective devices). This structure allows for a more comprehensive assessment of dispositional fear of crime across diverse sociocultural environments.

FoC also entails significant economic and social consequences, influencing public security budgets and employment opportunities (Costa & Dutra, 2019). Methodologically, it is dynamic, shaped by temporal, spatial, and contextual factors. Environmental cues such as social disorder and a lack of control further amplify fear, although these factors are often underexplored in FoC measurement (Taylor & Covington, 1993). In light of this, we hypothesize the following regarding the factorial structure of the scale. H1: The factorial structure of the fear of crime scale will be confirmed in the total sample and will demonstrate adequate psychometric properties.

Mass media play a central role in shaping FoC, particularly through the indirect victimization model, which suggests that exposure to crime stories creates fear even among non-victimized individuals (Lane & Meeker, 2003; Kohm et al.,

2012). Cultivation theory (Gerbner, 1970) extends this perspective, linking sustained exposure to violent media with heightened perceptions of danger. Gerbner and Gross (1976) demonstrated that heavy TV viewers believed they were at higher risk of victimization compared to light viewers, fostering generalized mistrust and fear. Subsequent studies confirmed that prolonged TV consumption correlates with increased FoC, regardless of content specificity (Doob & McDonald, 1979; Holbert et al., 2004). These findings support our next hypothesis, grounded in cultivation theory. H2: Greater exposure to mass media will be positively associated with higher levels of dispositional fear of crime, in line with the cultivation theory.

Gender differences in FoC are well-documented. Women consistently report higher levels of fear, often attributed to perceived vulnerability to physical threats (Catalano, 2005). Sexual crimes, in particular, evoke heightened fear among women, whereas property crimes show no significant gender-based differences (Dobbs et al., 2009). Studies in Portugal align with these findings, indicating that women exhibit greater FoC, especially toward violent crimes, despite their low prevalence (Machado & Manita, 2009). Intersectional analyses further reveal that the media-FoC relationship varies across racial and gender subgroups, with women showing the most consistent fear increases due to media exposure (Rosenberger et al., 2023). Based on these observations, we propose the following hypothesis. H3: Women will report significantly higher levels of dispositional fear of crime compared to men, supporting the vulnerability hypothesis.

Age as a predictor of FoC presents mixed findings. Early research suggested older adults were more fearful (Warr, 1984). However, more recent studies indicate younger individuals may experience higher fear levels, potentially due to riskier lifestyles rather than physical vulnerability (Rountree, 1998). In Brazil, the highest FoC levels are reported among individuals aged 40–59, even though younger people face greater victimization risks (Costa & Durante, 2022). Therefore, we

advance the following hypothesis related to age. H4: Older individuals will exhibit higher levels of dispositional fear of crime, consistent with the vulnerability hypothesis.

Emerging research explores FoC among sexual minorities. Doudes and Cook (2023) analyzed how FoC varies between sexual minorities and heterosexuals, revealing nuanced fear dynamics. Although their findings did not strongly support a “shadow hypothesis” for sexual minorities, they highlighted critical differences in fear experiences across these groups. This body of work emphasizes the need for nuanced investigations into FoC across diverse contexts and social groups, enabling a deeper understanding of how fear operates and affects individuals and societies.

FoC Measurement

The quantitative assessment of fear of crime has garnered substantial scholarly attention, primarily because it constitutes a complex and multidimensional construct. A while back, Hale (1996) already suggested that there are several issues associated with these measures. One of the basic issues is the use of global measures or more specific measures (McCrea et al., 2005). Several studies have used general measures (Cates et al., 2003; Romer et al., 2003; Van Dijk et al., 2008), that is, measures that present an unique indicator of FoC, without referring to a specific crime. Other studies include several indicators of Foc with specific questions and crime types to verify the possibility of victimization in specific situations (Kohm et al., 2012; Tulloch, 2000; Truman, 2007). These measures are used for purposes or are combined to form composite measures (McCrea et al., 2005).

The problems reported about global measures refer to their imprecision of measurement and point out the disadvantage of overestimating an overall prevalence of FoC (Farrall et al., 1997). On the other hand, specific measures make it possible to distinguish between the different dimensions of FoC (such as cognitive or emotional judgments; crimes of different natures: against the person, against property, and hypothetical

or real situations), in addition to exploring time, space and contexts when measuring FoC (Farrall et al., 1997). It is worth noting, however, that to date most studies use global measures (Hale, 1996), as their application cost is lower. Considering these results, we seek to present a specific measure of FoC which can be used to, at least, three samples of different countries.

The scale used in this study was originally developed by Gorman-Smith et al. (2000) and later refined by Dahlberg et al. (2005) to assess fear of violent crime in urban youth populations. It comprises 10 items grouped into two distinct factors: (1) Fear of Crime and (2) Cope with Crime. The Fear of Crime factor includes four items that assess subjective fear of being attacked or robbed in specific contexts (e.g., at home, during the day or night, alone or accompanied). Responses are recorded on a 4-point Likert scale ranging from 0 (No fear) to 3 (Very fearful). The second factor, Cope with Crime, includes six dichotomous (yes/no) items that capture behavioral responses aimed at avoiding victimization, such as limiting daily activities, purchasing weapons, reinforcing home security, or relocating. Accordingly, we propose the following hypothesis concerning cross-national validity. H4: The scale will demonstrate measurement invariance across the Brazilian, Portuguese, and American samples, allowing for valid cross-national comparisons.

Method

Participants

Three independent samples responded to the questionnaires: Brazil (n=226), Portugal (n=305) and the United States of America (n=325). In each of the countries, data collection was online and with probabilistic samples. The Brazilian sample included the participation of 226 college students from the Brazilian Federal District region, with a preponderance of females (61.9%), being composed of people with an average age of 26.67 years (SD=6.86), and with ages ranging from 18 to 55 years old. Of these, the majority were taking Business Administration courses

(66.4%), followed by Public Management (13.7%) and Pedagogy (11.5%). The majority was single (79%), with 19.6% being married or living together, who considered themselves to be moderately religious (30.1%) or very religious (30.1%). Participants reported to watch an average of 8.78 hours of TV (SD = 8.16) per week. In Portugal, 305 college students responded to the survey. They were predominantly female (74.1%), aged 17 to 23 (M=19.81; SD=2.44), 41% of them were on Social Assistance course, 44.6% from Public Administration and 14.4% from Communication. Most of these students was single (98.7%), with only 1.3% married or living together. They identify themselves as moderately religious (27.2%) and, on average, watched 11.88 hours/week of TV (SD = 8.97). 65% of participants live in Lisbon and 35% in other Portuguese cities. Finally, the American sample consisted of 325 individuals from the general population. Most respondents were male (54.2%), with a mean age of 36.43 years (SD=10.71) and age ranging from 20 to 71 years. Participants are distributed throughout the American territory, the majority was single (58.2%), and not at all religious (52.6%). On average, participants watched 13.87 hours of TV (SD = 12.78) per week. This was the only sample recruited through the MTurk platform, while in other collections the invitation was made in person by the researcher in the classroom.

Instruments

All scales used were self-administered; in Brazil and Portugal data were collected in classroom, guaranteeing conditions of respondent's privacy and anonymity. Questionnaires were non-identifiable. For all scales, brief measures were sought to have a simplified response format, so as to not discourage respondents' participants (Dillman, 2008). The following measures were included in the questionnaire.

Fear of Crime Scale. The measure originally presented by Gorman-Smith et al. (2000) and refined by Dahlberg, et al. (2005) for American samples. For adaptation to Portuguese, Brislin et al.'s (1970) method of translation and back-trans-

lation was used, composed of teams of bilingual translators. Its semantic validity was verified with 6 Portuguese and 6 Brazilian college students, who checked for intelligibility, clarity, and comprehensibility of the items. The scale aims to quantify the subjective fear of being a victim of a violent crime at home or in the neighborhood, having 10 items divided into two factors: 1 – Fear of Crime (items 1, 2, 3 and 4) with the question: How afraid are you of being attacked or stolen (1. in your house or apartment? 2. on the streets of your neighborhood during the day?; 3. when you go out alone at night in your neighborhood? 4. when you go out with other people at night in your neighborhood?) anchored on a 4-point response scale (0 = No Fear; to 3 = Very Fearful). Factor 2 – refer to measures taken to Cope with Crime (items 5, 6, 7, 8, 9 and 10). These items are answered on a dichotomous scale (No = 0 and Yes = 1), with the instruction: Does having FoC make you (1. limit the places or times you go shopping? 2. limit the places or times you go shopping? do you go to work? 3. limit the places you go on your own? 4. buy a gun for self-protection? /or doors etc.?; 6. move to live elsewhere?)

First used by Gorman-Smith et al. (2000), the scale was applied to young people from public schools in Chicago, showing good internal consistency coefficients for 1 – *Fear of Crime* factor ($\alpha = 0.86$) and 2 – *Cope with Crime* factor ($\alpha = 0.77$). In the Brazilian context, Pimentel et al. (2012) also found adequate reliability indexes for FoC ($\alpha = 0.82$) and Cope with Crime (K-R 20 = 0.62).

Sociodemographic questionnaire

The sociodemographic variables used refer to: age, sex, college course, socioeconomic class, marital status and degree of religiosity. The questionnaire variables that allow for testing the cultivation theory were: how many hours/week of TV the participant watches, favorite television program, the main problem in the participant's city and what city it is. *Informed Consent Form* submitted to the Institutional Ethics Review Board (IRB) was presented in the first page of the questionnaire, with the purpose of informing

participants of the ethical procedures for conducting the research and asking participants to register their consent.

Procedure

Instruments were administered to students in the classroom, in person, by a research assistant, both in Brazil and Portugal, duly trained for the study's purpose. The instruments were self-administered, with respondents marking their own answers individually, and ensuring anonymity and the voluntary participation. Approximately five minutes were required to complete participation. In the case of collection in the United States, the MTurk platform was used, whose criteria for participant's recruitment were persons over 18 years old, of American nationality, resident in the country and who watched TV.

Data Analysis

To probe for the structure of the FoC Scale, AMOS (version 18) was used. The covariance matrix was considered as input, and the Maximum Likelihood - ML estimator was assumed. This type of statistical analysis presents greater rigor and criteria compared to Principal Components Analysis, making it possible to directly test a theoretical structure. In the present study, using confirmatory factor analysis (CFA), two models were tested. The first consisted of the Harman test (single factor model), according to Malhotra et al. (2006) and the second tested the bi-factor structure, taking the theoretical model as a reference. With regard to the Chi-square test, responsible for examining the probability of adjustment of the theoretical model to the data due to its sensitivity to sample size, it was observed its ratio in relation to the degrees of freedom ($\chi^2/d.f.$), whose values satisfactory are considered in the range between 1 and 3. For the Goodness-of-Fit Index (GFI), which deals with the proportion of variance-covariance in the data, making it similar to R^2 in multiple regression analyzes, the values range from 0 to 1. Values around 0.90 or higher are indicative of adequate adjustment (Tabachnick & Fidell, 2007).

To verify an additional comparative index of fit to the model, the Comparative Fit Index (CFI) was used (in which values closer to 1 indicate better fit, recommending values of 0.90 or higher) and the Root-Mean-Square Error of Approximation (RMSEA) (adopting the 90% confidence interval (IC:90%); analyzed for values below 0.08. The Standardized Root Mean Square Residual (SRMR). The SRMR is an absolute measure of fit, defined as the normalized difference between the observed correlation and the predicted correlation, where a value less than 0.08 is generally considered a good fit (Hu & Bentler, 1999).

Reliability was assessed using composite reliability and Jöreskog's Rho (Jöreskog, 1971), which are recommended due to their reduced sensitivity to the number of items compared to Cronbach's alpha. These indices are derived from the standardized factor loadings rather than inter-item correlations. Values above 0.70 are considered indicative of good internal consistency.

Validity was examined through convergent and discriminant validity. Convergent validity was assessed by the Average Variance Extracted (AVE), or Rhocv (pcv), according to Fornell and Larcker (1981), with values above 0.50 considered satisfactory. Discriminant validity was verified by comparing the AVE of each factor with the squared correlation between factors. Discriminant validity is confirmed when the AVE of each construct is greater than the squared correlations with other constructs (Marôco, 2010; Fornell & Larcker, 1981). These procedures ensured that the scale accurately captures distinct constructs related to fear and coping behaviors, and that the items exhibit appropriate convergent coherence.

Finally, to evaluate the cultivation theory and the vulnerability hypothesis statistical analyzes were carried out, considering descriptive statistics (mean [M], standard deviation [SD], frequencies [f] and percentage [%]) and inferential statistics (Pearson, and Spearman correlations, partial correlation, simple and multiple regression). Graphical analyzes were also carried out using

scatter plots. All data were analyzed using the statistical program SPSS Statistics (*Statistical Package for Social Sciences*) version 29.

Results

Evidence for the Confirmatory Validity of the FoC scale

As a way of checking the quality of the adjustment of data from Brazil, Portugal and the United States, jointly, two specifications were assessed. The first evaluated a unidimensional model (Harman test, according to Malhotra et al., 2006), on an exploratory basis, and then the bifactor model, theoretically hypothesized. Model 1 (one-dimensional) did not show satisfactory fits [$\chi^2 (35) = 959.73$, $p < 0.000$; $\chi^2 / d.f. = 27.42$; GFI = 0.89; CFI = 0.68; RMSEA = 0.174 (90% CI=0.164-0.183) and SRMR = 0.129], which led to its rejection. Model 2 showed promising indices: $\chi^2 (26) = 324.86$, $p < 0.000$; $\chi^2 / d.f. = 12.49$; GFI = 0.92; CFI = 0.89; RMSEA = 0.115 (90% CI=0.104-0.126) and SRMR = 0.094. However, it was decided to respecify the model by eliminating the items that revealed standardized residual covariance, higher than the limit of |2.58|, according to MacCallum (1986) and whose modification indices proved to be inadequate when saturating in more than one item with high values (>11, according to Marôco, 2010). Error terms 1 and 2 were correlated. From this, 3 items from Factor 2 were removed (strategies taken to avoid crime – CM 4: buy a gun for self-protection, CM5: install a security system at home or protective devices, such as bars on windows, bells on windows and/or doors, etc., CM6: moving to live somewhere else). With these modifications, and correlating error Terms 1 and 2, better fit indices were obtained: $\chi^2 (12) = 51.98$, $p < 0.000$; $\chi^2 / d.f. = 4.33$; GFI = 0.98; CFI = 0.98; RMSEA = 0.062 (90% CI=0.045-0.079) and SRMR = 0.0316. The confirmatory structure is shown in Figure 1.

Composite reliability indicated strong internal consistency for the FoC factor (0.86) and for the Cope with Crime factor (0.75). Likewise, Jöreskog's Rho value revealed good internal consistency,

being 0.86 for Factor 1 and 0.75 for Factor 2. Next, convergent validity was assessed, according to the criteria of Fornell and Larcker (1981). In this case, for the FoC factor, the Rhocv value = 0.637 and for the Cope with Crime factor, the Rhocv value = 0.506. This criterion was satisfied by all dimensions of the scale studied in Figure

1. Similarly, the factor weights were all significant and strong ($\lambda_i > 0.5$; $p < 0.001$). The squared multiple correlations are also greater than 0.5, which provides additional proof of convergent validity (Bagozzi; Yi, 1988). Discriminant validity was tested between dimensions ($\text{Rhocv} > r_{22}$), being fully confirmed.

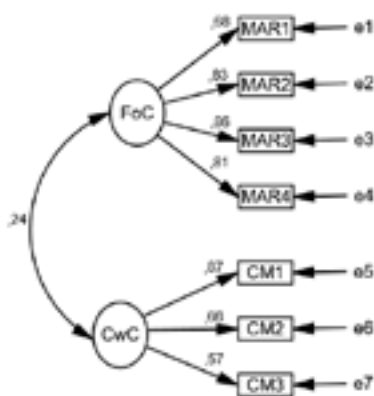


Figure 1 - Confirmatory Model for the FoC Scale.

The figure illustrates the two-factor confirmatory model tested across Brazil, Portugal, and the United States. The first factor ("Fear of Crime") includes four items related to perceived fear in different everyday contexts. The second factor ("Cope with Crime") captures behavioral responses to fear. After model respecification, three items were removed from the original Cope with Crime factor due to high residual covariances. The final model shows strong factor loadings ($\lambda > 0.5$), good composite reliability (FoC = 0.86; Cope = 0.75), and acceptable fit indices (CFI = 0.98; RMSEA = 0.062). Measurement invariance was confirmed across the three national samples.

Invariance of the FoC measure in Brazil, Portugal and the USA was evaluated using the AMOS software. In a first stage, the model was adjusted individually, based on the adjusted global model in Figure 1, for each of the groups (Brazil, Portugal and USA) and then the items that did not contribute to the quality of the model were eliminated. The adjustment indices for Brazil were: $\chi^2 (12) = 14.59$, $p < 0.265$; $\chi^2 / \text{d.f.} = 1.216$; GFI = 0.96; CFI = 0.99; RMSEA = 0.031 (90% CI=0.000-0.078) and SRMR = 0.047. Jöreskog's Rho value revealed good internal consistency, being 0.83 for Factor 1 and 0.61 for Factor 2. For Portugal: $\chi^2 (12) = 15.70$, $p < 0.206$; $\chi^2 / \text{d.f.} = 1.308$; GFI = 0.99; CFI = 0.99; RMSEA = 0.031 (90% CI=0.000-0.068) and SRMR = 0.043. Jöreskog's Rho value revealed good

internal consistency, being 0.79 for Factor 1 and 0.73 for Factor 2. Finally, for the United States: $\chi^2 (7) = 29.92$, $p < 0.000$; $\chi^2 / \text{d.f.} = 4.27$; GFI = 0.97; CFI = 0.97; RMSEA = 0.10 (90% CI=0.065-0.136) and SRMR = 0.044. For this adjustment it was necessary to remove the item (CM3: limit the places you go on your own). Jöreskog's Rho value revealed good internal consistency, being 0.85 for Factor 1 and 0.94 for Factor 2. These results confirm H1, indicating that the factorial structure of the Fear of Crime scale was validated in the total sample, demonstrating robust psychometric properties.

The invariance of the measurement model was assessed in the three groups by comparing the free model (with factor weights and variances/covariances of free factors) with a constrained

model in which the factor weights and variances/covariances fixed. The statistical significance of the difference between the three models was determined using the Chi-square test (Marôco, 2014). The conscript model with factor weights, intercepts and variance/covariance fixed in countries did not present a significantly worse fit than the model with free parameters ($\Delta X^2(14) = 49.63$; $p = 0.000$; $\Delta X^2\lambda(14) = 530.39$; $p = 0.000$; $\Delta X^2\text{cov}(6) = 629.57$; This demonstrates the measurement invariance of the FoC between the three countries. The result of the multigroup analysis obtained acceptable fit indices $\chi^2(39) = 319.23$, $p < 0.000$; $\chi^2 / \text{d.f.} = 8.18$; $\text{GFI} = 0.92$; $\text{CFI} = 0.88$; $\text{RMSEA} = 0.091$ (90% CI=0.082-0.100) and $\text{SRMR} = 0.056$. The composite reliability and the Jöreskog Rho showed good internal consistency for the data from Brazil, both for the FoC Factor (0.84) and the Measures taken to combat crime factor (0.61). For Portugal, the composite reliability and the Jöreskog Rho value also showed good consistency, FoC (0.80) and Measures taken to combat crime (0.61). Finally, for the USA, composite reliability and the value of Jöreskog's Rho showed the best consistency for the FoC Factor (0.84) and the Measures taken to combat crime Factor (0.87).

Fear of Crime and Coping Strategies: Descriptive Patterns and Cross-National Comparisons

To assess dispositional fear of crime (FoC) and coping strategies, descriptive analyses were conducted with participants from Brazil, Portugal, and the United States. Across all items related to the Fear of Crime factor, Brazil consistently showed the highest levels of fear, followed by Portugal, while the United States reported minimal fear.

Specifically, when considering fear of being attacked at home, 84% of Americans reported no fear, compared to 44.2% in Portugal and 24.6% in Brazil. Notably, 24.6% of Brazilians reported "a lot of fear" in this situation. A similar pattern was found regarding fear of being attacked on the streets during the day, with 89.2% of Americans

reporting no fear, versus 50.8% of Portuguese and only 22.3% of Brazilians. Again, a considerable portion of Brazilians (20.1%) expressed "a lot of fear," compared to 4% in Portugal and none in the U.S.

Fear intensified notably in night-time situations, especially when participants considered going out alone. In this context, 39.6% of Brazilians reported "a lot of fear," followed by 16% of Portuguese and just 5.5% of Americans. Only 10.2% of Brazilians stated they felt "no fear" in this scenario. The pattern persisted, though slightly reduced, when participants were accompanied at night: 73.2% of Americans reported no fear, compared to 43.3% of Portuguese and 22.3% of Brazilians. Still, 12.1% of Brazilians expressed "a lot of fear," much higher than Portugal (2.1%) and the U.S. (0%).

Considering now the measures taken to cope with FoC, it was found that most respondents indicated that having FoC does not make them limit the places they go to shop. Similarly, participants from the three countries do not limit the places or times they go to work. Finally, Brazil is the place where participants report that the FoC limits the places they go to on their own. These results were corroborated by the mean difference analysis, one way ANOVA, which showed significant differences between countries (Brazil, Portugal and USA) for the FoC factor ($F = 207.8$, $p = 0.00$), with Brazil being the one that reported the greatest fear ($M = 1.53$, $SD = 0.84$), followed by Portugal ($M = 0.96$, $SD = 0.69$) and the USA ($M = 0.36$, $SD = 0.48$). Tukey's post-test also showed significant mean differences in comparisons among the countries. Regarding the Cope with Crime factor, results also showed significant differences between countries ($F = 20.406$, $p = 0.00$), with higher means for Brazil ($M = 0.42$, $SD = 0.35$), followed by the USA ($M = 0.33$, $SD = 0.40$) and Portugal ($M = 0.23$, $SD = 0.28$).

Relationships between FoC, hours watching TV, gender and age

To test the cultivation theory (H2) in the countries, Pearson's correlation analysis was carried out between the number of hours of TV and the

FoC factor. H2 was partially confirmed, as the results supported the cultivation theory only for Portugal, where a positive and significant correlation was found ($r = 0.132$, $p = 0.017$). This correlation indicates that the greater the number of hours of TV watched weekly, the higher the FoC. However, no significant correlation was found when relating the Cope with Crime factor with the number of hours watched TV per week, for any of the countries. Even so, the factors, FoC and Cope with Crime, were positively correlated in Brazil ($r = 0.249$, $p = 0.000$), in Portugal ($r = 0.119$, $p = 0.032$) and in the USA ($r = 0.313$, $p = 0.000$).

Regarding the vulnerability hypothesis related to gender (H3), the hypothesis was confirmed for Brazil and Portugal but not confirmed for the United States. The Student's t-test further reinforced this pattern. In Brazil, women ($M = 1.82$, $SD = 0.77$) reported significantly higher FoC than men ($M = 1.02$, $SD = 0.71$; $t = -7.787$, $p < 0.000$). The same was observed in Portugal, where women ($M = 1.11$, $SD = 0.66$) reported higher FoC than men ($M = 0.55$, $SD = 0.59$; $t = -7.047$, $p < 0.000$). In the United States, however, there was no significant difference between men and women regarding FoC ($t = 0.261$, $p = 0.794$).

For the Cope with Crime factor, gender differences were also significant in Brazil and Portugal, with women adopting more coping strategies than men. In Brazil, women ($M = 0.47$, $SD = 0.36$) reported more coping behaviors than men ($M = 0.33$, $SD = 0.33$; $t = -2.958$, $p = 0.003$). Similarly, in Portugal, women ($M = 0.25$, $SD = 0.29$) adopted more coping strategies than men ($M = 0.18$, $SD = 0.25$; $t = -1.960$, $p = 0.050$). No significant gender differences were found in the U.S. for coping behaviors ($t = -0.605$, $p = 0.546$).

Regarding the vulnerability hypothesis associated with age (H4), the hypothesis was not confirmed in any of the three countries. Correlation analysis showed no significant association between age and FoC in Brazil ($r = -0.041$; $p = 0.547$), Portugal ($r = -0.033$; $p = 0.562$), or the United States ($r = 0.013$; $p = 0.817$).

Regression analyses further corroborated these findings. In Portugal, the number of hours

of television watched per week predicted FoC, although the explanatory power was modest ($R^2 = 0.02$; $F = 5.71$; $p = 0.05$), aligning with the partial confirmation of H2. Regarding gender, sex was a significant predictor of FoC in Brazil ($R^2 = 0.07$; $F = 8.44$; $p = 0.00$) and Portugal ($R^2 = 0.13$; $F = 24.89$; $p = 0.00$), explaining 6.4% and 12.9% of the variance, respectively, confirming H3 for both countries. In the U.S., neither gender nor age significantly predicted FoC. Across all countries, age did not emerge as a significant predictor of FoC, leading to the rejection of H4.

Discussion

The study sought, as a first objective, to gather evidence of construct validity (confirmatory factorial validity and composite reliability) of a brief measure of FoC (Gorman-Smith et al., 2000) in the Brazilian, Portuguese and American context. The study used a simple and self-administered instrument, which only required pencil and paper, in which the items, individually or, exhibited satisfactory psychometric qualities, which allows their use in future research.

With samples composed of Brazilian and Portuguese university students and a general population sample from the United States, the factorial structure of the instrument, tested via confirmatory factor analysis (ML), exhibited adjustment indices within the parameters recommended in the literature (Marôco, 2010). The internal consistency of both factors, measured by Jöreskog's Rho, was satisfactory (Hair et al., 2009; Marôco, 2011) and similar to those found in previous validations (Pimentel et al., 2012; Gorman-Smith et al., 2000). Furthermore, the scale demonstrated strong convergent and discriminant validity, as well as measurement invariance between countries — an aspect not previously tested in the literature. These results confirm H1, validating the factorial structure and psychometric robustness of the FoC scale in the total sample.

Regarding cross-national differences, results indicated that Brazil presented the highest levels of FoC, followed by Portugal, with the United Sta-

tes reporting the lowest levels. A similar pattern was observed for the adoption of coping strategies, with Brazil reporting the highest usage, followed by the U.S. and then Portugal.

As part of the second objective, the study tested the cultivation hypothesis (H2), which predicts that higher television consumption is associated with higher levels of FoC. H2 was partially confirmed, as this relationship was significant only in Portugal, corroborating seminal studies (Gerbner & Gross, 1976; Gerbner et al., 1980a, 1980b) and subsequent research (Bulck, 2004; Holbert et al., 2004; Romer et al., 2003; Pimentel et al., 2012). In contrast, the hypothesis was not confirmed for Brazil or the United States. A plausible explanation may lie in the types of media consumed. While traditional television remains relatively more relevant in Portugal, media consumption in Brazil and the U.S. has diversified toward streaming services and social media, which may not produce the same cultivation effects (Costa & Durante, 2022). According to the theory, more frequent viewers, i.e. those with prolonged exposure, adopt a more homogeneous perception of social reality among themselves. This is if we consider the exposure to the same content and the fact that the interpretation of the reality presented on television is tendentially carried out by experts. Furthermore, the theory also holds that messages must be consistent, even when presented by different experts and/or on different channels or programs. In this way, the variations between the three contexts compared can be explained. In Portugal, the number of experts and most-watched channels (with the largest audience) is lower compared to Brazil and the USA. This topic deserves further study in future research, but this study highlights its relevance.

It is particularly relevant to highlight that, although the cultivation hypothesis was confirmed for Portugal, the absolute levels of fear reported were relatively low. Respondents reported watching an average of 12.13 hours of television per week, a figure consistent with moderate viewing, but the literature indicates that stronger cultivation effects tend to occur among heavy

viewers, those watching more than 21 hours per week (Gerbner & Gross, 1976; Holbert et al., 2004; Morgan & Shanahan, 1996). This suggests that even moderate levels of television exposure in Portugal are sufficient to produce measurable effects on dispositional fear of crime, which may be influenced by the content or framing of crime-related news in that media context.

In terms of the vulnerability hypothesis related to gender (H3) (Barnett et al., 2007; McCrea et al., 2005), this was confirmed for Brazil and Portugal, but not for the U.S. Women in Brazil and Portugal reported significantly higher levels of FoC compared to men, aligning with findings from Pimentel et al. (2012) and Costa and Durante (2022) for Brazil, and Silva and Guedes (2022) for Portugal. This result reinforces a consistent pattern observed in the literature, where gender differences in fear of crime are attributed to perceived physical vulnerability and socialized gender roles (Dobbs et al., 2009; Barnett et al., 2007). However, the absence of this relationship in the U.S. is noteworthy and suggests that other contextual factors, such as cultural norms or crime perception, may mediate gender differences in fear.

Conversely, the vulnerability hypothesis related to age (H4) was not confirmed in any of the countries studied, which partially replicates the findings of Pimentel et al. (2012) in the Brazilian context. A likely explanation relates to the age profile of the sample: while Brazil and Portugal samples consisted predominantly of young university students, the U.S. sample, although drawn from the general population, exhibited overall lower FoC levels. The lack of variability in age, particularly in Brazil and Portugal, may have limited the ability to detect age-related effects on fear. This suggests that future research should incorporate more age-diverse samples to adequately test the role of age in the vulnerability hypothesis.

It is particularly relevant to highlight that, although the cultivation hypothesis was confirmed for Portugal, the absolute levels of fear reported were relatively low. Respondents reported

watching an average of 12.13 hours of television per week, a figure consistent with moderate viewing, but the literature indicates that stronger cultivation effects tend to occur among *heavy viewers*, those watching more than 21 hours per week (Gerbner & Gross, 1976; Holbert et al., 2004; Morgan & Shanahan, 1996). This suggests that even moderate levels of television exposure in Portugal are sufficient to produce measurable effects on dispositional fear of crime, which may be influenced by the content or framing of crime-related news in that media context.

Interestingly, in Brazil, the results diverged from those of Pimentel et al. (2012), where the cultivation hypothesis had been supported. Similar to that earlier study, however, the present research found no correlation between television exposure and the Cope with Crime factor, suggesting that media influence operates primarily on affective fear rather than behavioral responses.

Overall, the findings offer a nuanced understanding of the psychological and social factors shaping dispositional fear of crime across distinct cultural contexts. They underscore the importance of considering media ecosystems, gender dynamics, and sample characteristics when testing theoretical models such as the cultivation and vulnerability hypotheses. Future research should extend these analyses with more diversified samples, particularly in terms of age and media consumption patterns, and consider the role of digital media, which may now serve as an alternative or complementary vector to traditional television in cultivating fear of crime.

Limitations and Conclusion

Despite the strengths of this cross-national study, several limitations should be acknowledged. First, the use of non-probabilistic samples, particularly among university students and online respondents, limits the generalizability of the findings to the broader population. The differences in data collection procedures—online in the United States and in-person in Brazil and Portugal, may also introduce response biases.

Online surveys tend to attract participants who are younger, more educated, and more technologically literate, potentially skewing the sample toward a specific socioeconomic profile. They are also more susceptible to inattentive responding and satisficing behaviors. Conversely, in-person surveys, while potentially generating more deliberate responses, may introduce interviewer effects and greater social desirability bias, especially on emotionally sensitive topics such as fear and safety. These methodological differences may have contributed to some of the variations observed between the national samples.

Second, although the instrument demonstrated acceptable psychometric properties, future studies should further validate its factorial structure using longitudinal and representative samples, particularly in non-Western or underrepresented populations. The present analysis also did not consider potential moderating variables such as prior victimization, neighborhood disorder, or psychological traits like trait anxiety, all of which could further elucidate the mechanisms underlying dispositional fear of crime. Furthermore, while the theoretical frameworks of the cultivation theory and vulnerability hypothesis were integrated, their interplay deserves deeper exploration in both theoretical and empirical terms.

This study provides robust evidence for the cross-cultural validity of a brief scale measuring dispositional fear of crime in Brazil, Portugal, and the United States. The findings confirm the existence of two key dimensions, affective fear and behavioral coping, and demonstrate measurement invariance across the three contexts.

From a theoretical standpoint, the study reinforces the conceptual utility of distinguishing dispositional fear from situational fear and contributes to the integration of attitudinal dimensions (cognitive, affective, behavioral) in criminological measurement. It also confirms the relevance of media exposure and sociodemographic characteristics in shaping fear, supporting both the cultivation theory and the vulnerability hypothesis.

Methodologically, the study demonstrates the

viability of using a brief, psychometrically sound instrument for cross-national research. The use of confirmatory factor analysis, composite reliability, and invariance testing ensures a high degree of measurement precision and allows for future comparative studies in other cultural contexts. Practically, the validated scale can inform public safety assessments and community-based interventions. Policymakers and law enforcement agencies may use the instrument to identify fear hotspots, tailor communication strategies, and design evidence-based policies aimed at reducing fear independently of crime rates. This approach may help restore public trust, mitigate unnecessary behavioral restrictions, and promote more inclusive urban security strategies. Future research should seek to expand the sample scope, explore psychological mediators, and further investigate the sociopolitical consequences of fear of crime in different national contexts.

The cultivation theory has proven to remain relevant today, although it is not to be hidden that one of the main challenges it faces is exposure, consumption and activity in other media, particularly the internet. In addition to this challenge, it is known that the same theory maintains that the impact of a media message tends to be greater when it is aligned with an individual's life experiences (concept of resonance). As explained, victimization experiences are not directly related to fear of crime. It can be concluded from this that cultivation theory remains relevant to understanding fear of crime; more than to explain experiences with the occurrence of crime.

References

- Alvazzi del Frate, A., & Van Kesteren, J. (2004). *Criminal Victimization in urban Europe: Key Findings of the 2000 International Crime Victim Surveys*. UNICRI - United Nations Interregional Crime and Justice Research Institute. <http://www.unicri.it/icvs>
- Agra, C., & Quintas, J. (2001). *Dimensão e Estrutura da Criminalidade. Relatório sobre a Criminalidade Registada pela Polícia de Segurança Pública na Cidade do Porto no 1º Semestre de 2000* [Dimension and Structure of Crime. Report on Crime Recorded by the Public Security Police in the City of Porto in the 1st Semester of 2000]. Vol. I. Observatório Permanente de Segurança: São Paulo.
- Agra, C. da. (2007). Podemos medir a Criminalidade e a Segurança? In *Inovação, poder e desenvolvimento. Separata de Inovação, Poder e Desenvolvimento* (pp. 227-234). Congresso de Cidadania.
- Andrade, M. C. (1980). *A vítima e o problema criminal* [The victim and the criminal problem]. Coimbra Editora Limitada.
- Barker, A., & Crawford, A. (2010). *Fear of Crime and insecurity in Europe* - Report WP4. Project CRIMPREV. <https://nlink.at/xBCV>
- Barnett, K., Buys, L., Lovie-Kitchin, J., Smith, D., & Bbus, M. H. (2007). Older Women's Fears of Violence: The Need for Interventions That Enable Active Ageing. *Journal of Women & Aging*, 19(3-4), 179-193. https://doi.org/10.1300/J074v19n03_12
- Box, S., Hale, C., & Andrews, G. (1988). Explaining fear of crime. *The British Journal of Criminology*, 28(3), 340-356.
- Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology*, 1, 185-216. doi: <https://doi.org/10.1177/135910457000100301>
- Bulck, J. V. (2004). Research note: The relationship between television fiction and fear of crime: An empirical comparison of three causal explanations. *European Journal of Communication*, 19(2), 239-248. <https://doi.org/10.1177/0267323104042922>
- Catalano, S. M. (2005). *Criminal Victimization, 2004* (NCJ No. 210674). U.S. Department of Justice.
- Cates, J. A., Dian, D. A., Schnepf, G. W. (2003). Use of protection motivation theory to assess fear of crime in rural areas. *Psychology, Crime, & Law*, 9(3), 225-236. <https://doi.org/10.1080/10683160308135>
- Chiricos, T., Eschholz, S., & Gertz, M. (1997). Crime, news, and fear of crime: Toward an identification of audience effects. *Social Problems*, 44(3), 342-357. <https://doi.org/10.1525/sp.1997.44.3.03x01190>
- Costa, A., & Durante, M. (2019). A Polícia e o Medo do crime no Distrito Federal. *DADOS - Revista De Ciências Sociais*, 62, 1-31. <https://doi.org/10.1590/001152582019172>
- Costa, A., & Durante, M. (2019). Medo do crime e vitimização no Distrito Federal: Analisando as vulnerabilidades de gênero, idade, raça e renda. *Dilemas - Revista de Estudos de Conflito e Controle Social*, 12(2), 239-265. <https://revistas.ufrj.br/index.php/dilemas/article/view/17794/20913>
- Costa, A. T. M., & Durante, M. O. (2021). Medo do crime, desordens e coesão social no Distrito Federal. *Revista Sociedade E Estado*, 36, 613-637. <https://doi.org/10.1590/s0102-6992-202136020011>
- Costa, A. T. M., & Durante, M. (2022). A Mídia e o Medo do crime no Distrito Federal. *Opinião Pública*, 28, 487-509. <https://doi.org/10.1590/1807-0191202282487>
- Dahlberg, L. L., Toal, S. B., Swahn, M., & Behrens, C. B. (2005). *Measuring violence-related attitudes, behaviors, and influences among youths: A compendium of assessment tools*. Atlanta: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control.

- Daigle, L. E., Hancock, K., Chafin, T. C., & Azimi, A. (2022). U.S. and Canadian College Students. Fear of Crime: A Comparative Investigation of Fear of Crime and Its Correlates. *Journal of Interpersonal Violence*, 37(15–16), NP12901–NP12932. <https://doi.org/10.1177/08862605211001477>
- Defleur, M. L., & Ball-Rokeach, S. (1993). *Teorias da comunicação de massa*. J. Zahar.
- Dillman, D. (2008). The logic and psychology of constructing questionnaires. In E. D. de Leeuw, J. L. Hox, & D. A. Dillman (Ed.), *International handbook of survey methodology* (pp. 161–175). Psychology Press.
- Dobbs, R. R., Waid, C. A., & Shelley, T. O. (2009). Explaining fear of crime as fear of rape among college females: An examination of multiple campuses in the United States. *International Journal of Social Inquiry*, 2(2), 105–22.
- Doob, A. N., & McDonald, G. E. (1979). Television viewing and fear of victimization: Is the relationship causal? *Journal of Personality and Social Psychology*, 37(2), 170–179. <https://doi.org/10.1037/0022-3514.37.2.170>
- Doude, S., & Cook, C. L. (2023). Sexual Minority Vulnerability and Fear of Victimization. *Victims & Offenders*, 18(2), 237–263. <https://doi.org/10.1080/15564886.2021.1983910>
- Dowler, K. (2003). Media consumption and public attitudes toward crime and justice: The relationship between fear of crime, punitive attitudes, and perceived police effectiveness. *Journal of Criminal Justice and Popular Culture*, 10(2), 109–126.
- Farrall, S., Bannister, J., Ditton, J., & Gilchrist, E. (1997). Questioning the Measurement of the "Fear of Crime". *British Journal of Criminology*, 37(4), 658–79.
- Farrall, S., Jackson, J., & Gray, E. (2009). *Social order and the fear of crime in contemporary times*. Oxford University Press.
- Fernandes, L., & Rêgo, X. (2011). Por onde anda o sentimento de insegurança? Problematizações sociais e científicas do medo à cidade. *Etnográfica*, 15(1), 167–181. <https://doi.org/10.4000/etnografica.869>
- Ferraro, K. F. (1995). *Fear of crime: Interpreting victimization risk*. State University of New York Press.
- Ferraro, K. F. (1996). Women's Fear of Victimization: Shadow of Sexual Assault? *Social Forces*, 75(2), 667–90.
- Ferraro, K. F., & LaGrange, R. L. (1987). The Measurement of Fear of Crime. *Sociological Inquiry*, 57(1), 70–97.
- Ferraro, K. F., & LaGrange, R. L. (1992). Are Older People Most Afraid of Crime – Reconsidering Age-Differences in Fear of Victimization. *Journals of Gerontology*, 47(5), S233–S244.
- Fetchenhauer, D., & Buunk, B. P. (2005). How to explain gender differences in fear of crime: Towards an evolutionary approach. *Sexualities, Evolution and Gender*, 7(2), 95–113. <https://doi.org/10.1080/00207170500111044>
- Frevel, B. (1998). *Wer hat Angst vor'm bösen Mann? Ein Studienbuch über Sicherheit und Sicherheitsempfinden*. Nomos.
- Gabriel, U., & Greve, W. (2003). The psychology of fear of crime. Conceptual and methodological perspectives. *British Journal of Criminology*, 43(3), 600–614. <https://doi.org/10.1093/bjc/azq600>
- Gainey, R., Alper, M., & Chappell, A. T. (2011). Fear of crime revisited: Examining the direct and indirect effects of disorder, risk perception, and social capital. *American Journal of Criminal Justice*, 36(2), 120–137. <https://doi.org/10.1007/s12103-010-9089-8>
- Gerbner, G. (1970). Cultural indicators: The case of violence in television drama. *Annals of the American Academy of Political and Social Science*, 388(1), 69–81. <https://doi.org/10.1177/000271627038800108>
- Gerbner, G., & Gross, L. (1976). Living with television: The violence profile. *Journal of Communication*, 26(2), 173–199. <https://doi.org/10.1111/j.1460-2466.1976.tb01397.x>
- Gerbner, G., Gross, L., Morgan, M., & Signorielli, N. (1980a). Additional comments on cultivation analysis. *The Public Opinion Quarterly*, 44(3), 408–410.
- Gerbner, G., Gross, L., Morgan, M., & Signorielli, N. (1980b). The "mainstreaming" of America: Violence profile nº11. *Journal of Communication*, 30(3), 10–29.
- Gordon, M. T., Riger, S., LeBailly, R. K., & Heath, L. (1980). Crime, women, and the quality of urban life. *Signs Journal of Women in Culture and Society*, 5(3), 144–160.
- Gorman-Smith, D., Tolan, P. H., & Henry, D. B. (2000). A developmental-ecological model of the relation of family functioning to patterns of delinquency. *Journal of Quantitative Criminology*, 16(2), 169–198. <https://doi.org/10.1023/A:1007564505850>
- Gray, E., Jackson, J., & Farrall, S. (2008). Reassessing the fear of crime. *Journal of European Criminology*, 5(3), 363–380. <https://doi.org/10.1177/1477370808090834>
- Gray, E., Jackson, J., & Farrall, S. (2011). Feelings and functions in the fear of crime. *British Journal of Criminology*, 51(1), 75–94. <https://doi.org/10.1093/bjc/azq066>
- Greer, C., & Reiner, R. (2012). Mediated mayhem: media, crime, criminal justice. In M. Maguire, R. Morgan & R. Reiner (Rds.), *The Oxford Handbook of Criminology* (pp. 245–278). Oxford University Press.
- Gunter, B., & Harrison, J. (2005). *Violence and television: An analysis of the amount, nature, location, and origin of violence in British programs*. Routledge Progress in Psychology.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2009). *Análise multivariada de dados*. (A. S. Sant'Anna, Trad.). Bookman.
- Hale, C. (1996). Fear of crime: A review of the literature. *International Review of Victimology*, 4, 79–150. <https://doi.org/10.1177/02697580960040020>

- Holbert, R. L., Shah, D. V., & Kwak, N. (2004). Fear, authority, and justice: Crime-related TV viewing and endorsements of capital punishment and gun ownership. *J&MC Quarterly*, 81(2), 343–363. <https://doi.org/10.1177/107769900408100208>
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria of fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>
- Jackson, J., & Gray, E. (2010). Functional fear and public insecurities about crime. *British Journal of Criminology*, 50(1), 1–22. <https://doi.org/10.1093/bjc/azp059>
- Jackson, J. & Kuha, J. (2015). How theory guides measurement: examples from the study of public attitudes toward crime and policing, in Bynum, T. S. and Huebner, B. M. (Eds), *Handbook on Measurement Issues in Criminology and Criminal Justice*, John Wiley and Sons, Hoboken, pp. 377–415. <https://doi.org/10.13140/2.1.4152.0960>
- Jöreskog, K. G. (1971). Statistical analysis of sets of congeneric tests. *Psychometrika*, 36(4), 109–133.
- 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.
- Kohm, S. A., Waid-Lindberg, C. A., Weinrath, M., Shelley, T. O., & Dobbs, R. R. (2012). The Impact of Media on Fear of Crime among University Students: A Cross-National Comparison. *Canadian Journal of Criminology and Criminal Justice*, 54(1), 67–100.
- Kuhn, A., & Agra, C. (2010). *Somos todos criminosos?: pequena introdução à criminologia e ao direito das sanções*. Casa das Letras.
- Krulichová, E. (2018). The relationship between fear of crime and risk perception across Europe. *Criminology & Criminal Justice*, 19(2), 197–214. <https://doi.org/10.1177/1748895818757832>
- Lane, J., & Meeker, J. W. (2003). Ethnicity, information sources, and fear of crime. *Deviant Behavior*, 24(1), 1–26. <https://doi.org/10.1353/ccj.2012.0003>
- Leal, J. (2010). O sentimento de insegurança na discursividade sobre o crime. *Sociologias*, 12(23), 394–427.
- Lourenço, N., & Lisboa, M. (1996). Violência, criminalidade e sentimento de insegurança. *Textos* (Revista do Centro de Estudos Judiciários), 2, 45–64.
- MacCallum, R. C. (1986). Specification searches in covariance structure modeling. *Psychological Bulletin*, 100(1), 107–120. <https://doi.org/10.1037/0033-2909.100.1.107>
- Machado, C. (2004). *Crime e Insegurança. Discursos do Medo, Imagens do Outro*. Editorial Notícias.
- Machado, C., & Agra, C. (2002). Insegurança e Medo do crime: da rutura da sociabilidade à reprodução da ordem social. *Revista Portuguesa da Ciência Criminal*, 12, 79–101.
- Machado, C., & Manita, C. (2009). Fear of Crime: Methodological Considerations and Results from a Biannual Survey in the City of Porto. *The European Journal of Psychology applied to Legal context*, 1(1), 69–99.
- Malhotra, N. K., Sung, K. S., & Ashutosh, P. (2006). Common method variance in IS research: A comparison of alternative approaches and a reanalysis of past research. *Management Science*, 52(12), 1865–1883. <https://doi.org/10.1287/mnsc.1060.0597>
- Marôco, J. (2010). *Análise de equações estruturais: fundamentos teóricos, software e aplicações*. Report Number.
- Marôco, J. (2011). *Análise estatística com o SPSS Statistics* (5th ed.). Report Number.
- 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(7), 7–27. <https://doi.org/10.1177/1440783305048381>
- Moore, M. H., & Trojanowicz, R. C. (1998). Policing and the fear of crime. *Perspectives on Policing*, 3, 1–8.
- Morgan, M., & Shanahan, J. (1996). Two decades of cultivation research: An appraisal and meta-analysis. In B. R. Burlinson (Ed.). *Communication Yearbook 20* (pp. 1–45). Sage.
- Mueller, A. R., & Roeder, M. (2014). Perception of security and protective strategies: Differences between personality prototypes. *European Scientific Journal*, 10(20), 22–30.
- Natal, A. & Oliveira, A. R. (2021). Medo do crime: mensurando o fenômeno e explorando seus preditores na cidade de São Paulo. *Opinião Pública*, 27(3), 757–796. <https://doi.org/10.1590/1807-01912021273757>
- O’Keefe, G. J., & Reid-Nash, K. (1987). Crime news and real-world blues: The effects of the media on social reality. *Communication Research*, 14(2), 147–163. <https://doi.org/10.1177/009365087014002001>
- Ortega, S. T., & Myles, J. L. (1987). Race and gender effects on the fear of crime: An interactive model with age. *Criminology*, 25(1), 133–152.
- Parker, K. D. (2001). Black-white differences in perceptions of fear of crime. *The Journal of Social Psychology*, 128(4), 487–494.
- Pasquali, L. (2012). *Análise Fatorial para pesquisadores* (1st ed). Brasília: LabPAM Editora.
- Pimentel, C. E., Günther, H., & Black, P. U. V. (2012). Acessando o Medo do crime: Um survey por meio da internet. *Psicologia Argumento*, 30(69), 411–421.
- Rangel, J. G. (2004). Televisão em medo do crimeo: A violência e suas relações psicossociais no contexto dos telespectadores. *ALCEU*, 4(8), 51–64.
- 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. <https://doi.org/10.1080/02732170490431331>

Romer, D., Jamieson, K. H., & Aday, S. (2003). Television news and the cultivation of fear of crime. *Journal of Communication*, 53(1), 88–104. <https://doi.org/10.1111/j.1460-2466.2003.tb03007.x>

Rosenberger, J. S., Dierenfeldt, R., & Ingle, H. (2023). Media Consumption and Fear of Crime: Evidence of the Need for an Intersectional Approach. *Victims & Offenders*, 18(4), 691–714. <https://doi.org/10.1080/15564886.2021.1991069>

Rountree, P. W. (1998). A reexamination of the crime-fear linkage. *Journal of Research in Crime and Delinquency*, 35(3), 341–372. <https://doi.org/10.1177/002242789803500300>

Rountree, P. W., & Land, K. C. (1996a). 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. <https://doi.org/10.1177/0022427896033002001>

Rountree, P. W., & Land, K. C. (1996b). Perceived risk versus fear of crime: Empirical evidence of conceptually distinct reactions in survey data. *Social Forces*, 74(4), 1353–1376. <https://doi.org/10.1093/sf/74.4.1353>

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. <https://doi.org/10.1016/j.jcrimjus.2006.03.003>

Silva, C., & Guedes, I. (2022). The role of the media in the fear of crime: a qualitative study in the Portuguese context. *Criminal Justice Review*, 0(0). <https://doi.org/10.1177/07340168221088570>

Stanko, E. A. (1993). Ordinary fear: Women, violence, and personal safety. In P. B. Bart, & E. G. Moran (Eds.), *Violence against women: The bloody footprints* (pp. 155–164). Sage Publications, Inc.

Sutton, R. M., & Farrall, S. (2005). Gender, Socially Desirable Responding and the Fear of Crime. Are Women Really More Anxious about Crime? *British Journal of Criminology*, 45(2), 212–224. <https://doi.org/10.1093/bjc/azh084>

Tabachnick, B. G., Fidell, L. S. (2007). *Using multivariate statistics*. Allyn & Bacon.

Taylor, R., & Covington, J. (1993). Community structural change and fear of crime. *Social Problems*, 40, 374–397.

Truman, R. S. (2007). *Fear of crime and perceived risk of victimization among college students* (Unpublished Master's Dissertation). Sociology Department, University of Central Florida, Orlando, Florida.

Tulloch, M. (2000). The meaning of age differences in the fear of crime: Combining quantitative and qualitative approaches. *British Journal of Criminology*, 40(3), 451–467. <https://doi.org/10.1093/bjc/40.3.451>

Van Dijk, J. J. M., Van Kesteren, J. N., & Smit, P. (2008). *Criminal Victimization in International Perspective, Key findings from the 2004-2005 ICVS and EU ICS*. Boom Legal Publishers.

Warr, M. (1984). Fear of victimization: Why are women and the elderly more afraid? *Social Science Quarterly*, 65(3), 681–702.

Weinrath, M., Clarke, K., & Forde, D. (2007). Trends in fear of crime in a Western Canadian city: 1984, 1994, and 2004. *Canadian Journal of Criminology and Criminal Justice*, 49(5), 617–646. <https://doi.org/10.3138/cjccj.49.5.617>

Weitzer, R., & Kubrin, C. E. (2004). Breaking News: How Local TV and Real World Conditions Affect Fear of Crime. *Justice Quarterly*, 21(3), 497–520. <https://doi.org/10.1080/07418820400095881>

Ziegler, R., & Mitchell, D. B. (2003). Aging and fear of crime: An experimental approach to an apparent paradox. *Experimental Aging Research*, 29(2), 173–187. <https://doi.org/10.1080/0361073030303716>

Minibiografia

Thiago Ghomes Nascimento

Doutor em Ciências de Gestão pela Aix-Marseille Université, na França. Atualmente, atua em dois programas de pós-graduação na Universidade de Brasília (UnB) — o Programa de Pós-graduação em Ciências do Comportamento e o Mestrado Profissional em Administração Pública —, além de ser afiliado ao Mestrado Profissional em Políticas Públicas da Universidade Católica de Brasília.

Cláudio Vaz Torres

Doutorado em *Cross-Cultural Psychology* (Psicologia Transcultural) pela California School of Professional Psychology. Atualmente afiliado ao Programa de Pós-graduação em Ciências do Comportamento da Universidade de Brasília (UnB).

Dália Costa

Doutora em Sociologia da Família, com titulação obtida pela Universidade Aberta, em Portugal. Atualmente, mantém afiliação institucional com o Centro Interdisciplinar de Estudos de Gênero (CIEG), que integra o Instituto Superior de Ciências Sociais e Políticas (ISCSP) da Universidade de Lisboa.

Breno Giovanni Adaid-Castro

Doutor em Administração, conferido pela Universidade de Brasília (UnB). Atualmente, está institucionalmente afiliado ao Programa de Pós-graduação em Ciências do Comportamento, também na Universidade de Brasília.

Henny Kamilla Ramos de Lima

Doutora em Ciências Genômicas e Biotecnologia, tendo obtido sua titulação pela Universidade Católica de Brasília. Atualmente mantém sua afiliação institucional com o Programa de Pós-graduação em Ciências do Comportamento da Universidade de Brasília.

Amanda Almeida Paiva

Mestra em Administração, concedido pela Universidade de Brasília (UnB). Sua afiliação institucional atual é com o Programa de Pós-graduação em Ciências do Comportamento, também na Universidade de Brasília.

Endereço para correspondência

Thiago Ghomes Nascimento

Universidade de Brasília
Campus Universitário Darci Ribeiro
Instituto de Psicologia
ICC-SUL, 70910-900
Brasília, DF, Brasil

Cláudio Vaz Torres

Universidade de Brasília
Campus Universitário Darci Ribeiro
Instituto de Psicologia
ICC-SUL, 70910-900
Brasília, DF, Brasil

Dália Costa

Universidade de Lisboa
Instituto Superior de Ciências Sociais e Políticas
Rua Almerindo Lessa
Almerindo Lessa, 1300-663
Lisboa, Portugal

Breno Giovanni Adaid-Castro

Universidade de Brasília
Campus Universitário Darci Ribeiro
Instituto de Psicologia
ICC-SUL, 70910-900
Brasília, DF, Brasil

Henny Kamilla Ramos de Lima

Universidade de Brasília
Campus Universitário Darci Ribeiro
Instituto de Psicologia
ICC-SUL, 70910-900
Brasília, DF, Brasil

Amanda Almeida Paiva

Universidade de Brasília
Campus Universitário Darci Ribeiro
Instituto de Psicologia
ICC-SUL, 70910-900
Brasília, DF, Brasil

Os textos deste artigo foram revisados por Bruno Schroeder dos Santos e submetidos para validação dos autores antes da publicação.