

# **Crime news consumption and fear of violence: The role of traditional media, social media, and alternative information sources**

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## **Abstract**

In this article, we examine the correlates of fear of violence in the cross-media landscape. The study draws on the Finnish National Crime Victim Survey (n=6,141, respondents aged 15–74). Firstly, we examine from what information and media sources respondents receive information on violent crime. We then examine how consumption of different types of media and information sources on violent crime associates with the contemporary experience of fear of street violence, avoidance behavior due to threat of violence, and perceived threat of terrorism to oneself. We also examine whether this association remains when age, gender, education, past victimization, and economic strain are adjusted for.

*Keywords:* Fear of violence, Avoidance behavior, Perceiving terrorism as a threat to oneself, Violent crime news consumption, Cross-media

## **INTRODUCTION**

Crime has been one of the main topics in news media for decades (e.g. Dominick, 1978; Graber, 1980; Johnson, 1998). In the U.S., a study by Klite et al. (1997) revealed that over 70 per cent of the 100 news channels examined in the study opened with a crime related news story. Similar trends are evident in number of other Western societies, for example in the United Kingdom, the increased crime reporting trend has been noted since the end of World War II (Reiner et al., 2003). In Sweden, a similar trend has been established since the 1960s (Pollack, 2001), and in Finland, researchers observed an increasing trend in crime coverage in both the tabloid headlines and the main evening television news since late 1970's (Smolej and Kivivuori, 2006). Crime, and particularly violent crime, therefore, serves as one of the key “selling” items for different media outlets in their competition for readers and viewers.

It is not surprising that this has led to questions on how this may shape people's perceptions of crime in general. Garland (2000) has suggested that the image the media paints about crime eventually becomes the perceived reality for many media consumers, thus indirectly influencing the criminal policies of many developed nations. Thanks to the rapid technologization of most Western societies, the media landscape has also undergone significant changes over the past few decades. The number of different information channels and tools to access information has become extensive (e.g. Anonymized citation, 2013; Andrejevic, 2013). This means that the outlets for information regarding crime have also expanded. Besides traditional forms of crime, in many Western societies, societal threats such as terrorism have also become increasingly visible, thus further diversifying the modern-day media landscape.

As the everyday scope of different outlets of violence in the news has become so extensive, it raises the question: how does the modern cross-media landscape resonate with fear of violence? This is an interesting question, especially when taking into consideration the fact that despite crime continuing to play an important role in the media sphere, Finland, like many other Western societies,

have actually witnessed the so-called crime drop phenomenon in recent decades regarding many traditional forms of crime (e.g. Farrell et al, 2014; Elonheimo, 2014). As in other Nordic countries, homicide rates in Finland have been in stark decline (Lehti et al., 2019). Trends regarding other forms of violence have remained steady (Anonymized citation 2019), while youth offending has hit all-time low (Anonymized citation 2016).

Although there is an extensive and diverse body of research on the topic of fear of crime (see already e.g. Hale, 1996), one of the challenges with existing topical research is that it often treats crime in rather generalized way and without focusing on specific types of crime (see e.g. Gabriel and Greve, 2003). In this article, our emphasis is particularly on the role of violence. We examine how respondents' consumption of news media and other information regarding violence associated with their perceived fear of street violence, avoidance behavior due to threat of violence, and respondents' perception of terrorism as a threat to oneself (see also Lovenc et al., 2014). We will therefore revisit the link between consumption of news on violent crime and subjective experience of violence in a thoroughly changed media landscape. As a result, the key questions that this article aims to answer are:

- From which media and information sources do people gather information on violent crime?
- How does consumption of different types of media and information sources associate with the contemporary experience of three possible correlates of media consumption: fear of street violence, avoidance behavior due to threat of violence, and perceived threat of terrorism to oneself?
- Does this association remain when age, gender, education, past victimization, and economic strain are adjusted for?

Furthermore, we aim to add to prior research by using a nationally representative sample of the adult population by using a study context of a European high trust and low conflict society, and by capturing the modern cross-media environment.

### *Current media landscape*

Although the majority of traditional media have an online presence, it is the emergence of new media and different social media services, such as Facebook or Twitter, along with countless different discussion forums and photo- and video-sharing sites, that serve as an integral part of the new media landscape. Content consumers now have the chance to be content producers and distributors, making the modern-day information society much more interactive (e.g. Couldry and Hepp, 2016; Anonymized citation, 2013), or what Anonymized citation (2018) refers to as the cross-media landscape.

As the number of different information outlets has multiplied, information and content, particularly in the online context, have become targeted and dispersed (Tammi, 2016). It is not only easy to seek content that supports one's existing views, but content consumers are also targeted with content that fits their user profiles, resulting in what have been referred to as information bubbles (Pariser, 2011) or an identity bubble reinforcement (Keipi et al., 2017) effect. This, in part, helps to cater for more polarized interactions and attitudes, particularly in relation to topics that are more emotionally charged (Sunstein and Hastie, 2015). Polarized attitudes, combined with elements such as distrust in politics and the traditional media, have also helped to foster the emergence of the so-called (populist) counter media (Noppari et al. 2019) or alternative information and media sources. The common denominator of these types of information sources is that they often have a strong ideological—often nationalistic—slant, and they do not submit to the traditional journalistic institutions of self-regulation. Many of these sites do not intend to serve as objective news providers, but rather as platforms for ideologically likeminded people to share information and content supporting their agenda. They also typically challenge the reliability and honesty of the traditional media, and instead claim that they themselves offer the truth (Haller and Holt, 2018; Noppari et al. 2019; Noppari and Hiltunen, 2017).

Therefore, the present-day media and information landscape is a combination in which traditional media, and various kinds of digital born outlets – including so called alternative information and media sources collide. In relation to this, it must also be acknowledged that the role of media consumption is therefore not necessarily homogenous. What we mean by this is that consumption of traditional media through television or radio can be more passive in nature, whereas consumption of online services of traditional media, new media outlets and alternative information sources might result from a more active seeking of specific types of information. Therefore the potential influence of different media may differ.

The current study focuses on media use consequences in a Nordic welfare state (e.g. Esping-Andersen, 1990; Greve, 2007), characterized by high trust in institutions (European Commission, 2017), strong middle class, modest income differences (Official Statistics Finland, 2017), high internet penetration and social media access (Internet World Stats, 2018), and generally decreasing crime rates (Anonymized citation 2016; Lehti et al. 2019). Furthermore, in an international comparison of 37 countries, Finland actually displayed the highest level of trust in the news, and the weekly reach of online news among the adult population is more than 80% (Newman et al., 2018).

## **PRIOR RESEARCH**

### *Crime news consumption and fear of crime*

The relationship between crime news consumption and fear of crime on a more general level has received notable research attention in the recent decades. Much of the existing research has focused on traditional media. Generally the findings suggest that there is a connection between consumption of crime news content and fear of crime (e.g. Hollis et al., 2017; Smolej and Kivivuori, 2006 and 2008; Romer et al., 2003; Shirlow & Pain, 2003; Chiricos et al., 1997; Pearson, 1983). Thus, summarizing the existing research, Smolej (2011) argues that past research has established a clear association between crime reporting and people's perceived fear of crime. David Altheide, one of the

most visible scholars on the topic, has long argued that media has been very influential in creating what he refers as the discourse of fear (Altheide, 2002; see also Furedi 1998; Garland 2000; von Hofer 2001). In fact, Altheide (2006:418) even argues that media is just one beneficiary on a long list of beneficiaries regarding crime related fears: "...Politicians and state control agencies, working with news media as 'news sources,' have done much to capitalize on this concern and to promote a sense of insecurity and reliance on formal agents of social control (FASCs)—and related businesses—to provide surveillance, protection, revenge, and punishment to protect us, to save us".

However, our aim in this paper is not to focus on too much on the discourse of fear, but rather to examine the role of the changing media landscape. What the existing research also indicates is that the connection between crime news consumption and fear of crime is not necessarily straightforward, as the impact of news consumption can interact with several other factors. Chiricos et al. (1997) noted that, with reference to watching television news, only white females experienced greater levels of fear of crime. A later study by Chiricos et al. (2000) showed that past experiences of crime victimization influenced the relationship between watching both local and national television and fear of crime. Their findings indicated that watching local news had a stronger effect on fear of crime among respondents with past victimization experiences, as well as among respondents who lived in areas with higher crime rates (see also Weitzer and Kubrin, 2004). In Finland, Smolej and Kivivuori (2006) observed that age, area of residence, employment status, and past victimization (see also Rühls et al., 2017) were associated with crime media consumption and fear of crime. The role of past victimization suggests that crime media can serve as a means of 'corroborating' and coping with stress events (e.g. Chiricos et al. 2000).

Besides fear and concern, crime media consumption has also been found to have other effects. Gebotys et al. (1988) examined the link between consumption of television news and people's assessments of the seriousness of different types of offense. They found that consuming news about more serious offences, such as homicides, resulted in increased sensitivity to how serious other types

of offenses were perceived (Gebotys et al., 1988, see also Gerbner et al., 1980). Salmi et al. (2007) examined how exposure to crime news content was associated with perceived social trust. They found an association between crime news consumption and lower levels of interpersonal trust among adolescents. They also noted that the effect was associated with television but not with print media (Salmi et al., 2007). Towers et al. (2015) argue that media coverage can even trigger contagion effects, resulting in temporal clustering of serious crimes, such as mass killings.

As noted, prior research has also largely focused on the role of the traditional media, with relatively little existing research on the current cross-media landscape (Anonymized citation, 2018; Weitzer and Kubrin, 2004). This still appears to be largely the case, even though Wardman (2017) has suggested that fear of crime is, in a way, also going through digitalization process. In a study of American and Canadian students, Kohm et al. (2012) did not find a link between using the internet as a source of crime news and fear of crime, while local TV news did have such an impact. Similarly, using campus samples, Intravia et al. (2017) found that overall social media consumption had a significant association with fear of crime, while crime-related use of social media did not, which the researchers regarded as a puzzling finding.

### *Crime news consumption and avoidance behavior*

When examining the impact of crime news consumption, it is pertinent to try to understand the extent to which this resonates in regards to people's actual behavior. That is, what measures are taken because people are afraid or worried about crime. One such aspect is avoidance behavior in the sense of whether crime news consumption is associated with the decision to; for instance, avoid certain areas at certain times of the day (e.g. Wilcox et al., 2007).

Now, there is existing research on aspects such as the relationship between the threat of victimization and avoidance behavior (e.g. May et al., 2010; Rader et al., 2007). However, there is not much research looking at the relationship between crime news consumption and avoidance

behavior. Focusing on print media and television news, O’Keefe and Reid-Nash (1987) examined the influence of crime news consumption on both fear of crime and potential avoidance behavior. They found that increased attention to television news was associated with increased avoidance behavior, while attention to print news did not have such an effect. They also found that avoidance behavior was more common among women in the form of precautionary behavior resulting from fear of sexual violence (e.g. O’Keefe and Reid-Nash 1987). In the Nordic context, Smolej and Kivivuori (2006) noted in their study that reading crime-related tabloid headlines was associated with both an increased fear of crime and avoidance behavior. They also observed that females, respondents living in cities, respondents who were retired, and respondents with prior victimization experiences were more likely to report avoidance behavior.

#### *(News) media and terrorism*

Despite being a relatively rare occurrence, terrorism has become increasingly visible for modern-day media consumers. That is, terrorist events, especially those targeting Western societies, tend to be highly publicized and covered in different media and information outlets. However, it should be noted that the relationship between news media and terrorism goes back decades. Nearly four decades ago, for instance, Jenkins (1981) examined whether the extensive news coverage that terrorist attacks receive actually enhances and exaggerates the significance of these attacks. Wilkinson (1997) took a somewhat similar approach in his work, calling for the media to use restraint in reporting about terrorism, and taking a critical approach to Wieviorka’s (1993) claim that terrorism and the media were not in a symbiotic relationship. Altheide (2006) has argued that since 9/11 attacks, terrorism has become permanent fixture (alongside victimization and crime) of what he calls the discourse of fear. More recently, Nellis and Savage (2012) examined the relationship between news media coverage of terrorism and fear of terrorism. The study found a positive correlation between exposure to terrorism-related news and fear of terrorism on a general level, but not as a personal threat. Furthermore,



Jackson et al. (2011) note that witnessing extreme violence and terrorism on the media has a negative effect on children's mental and emotional wellbeing. Following this, Leiner et al. (2016) put forward suggestions for intervention and preventive measures regarding children's potential exposure to such media content. In relation to our research premise, a recent study by Williamson and colleagues (2019) found that active, multiple media related consumption of news and information about terrorism, increased respondents' fear of terrorism, whereas more passive consumption of television and radio did not have similar effects. This would perhaps suggest that self-selection plays a role in explaining the relationships between media, crime and fear.

## **CONCEPTUAL APPROACH**

The key conceptualization of past research has involved the question of how experiential (crime-related) versus expressive fears associated with crime are. If fear results from prior victimization or otherwise tangible crime risks, it can be said to be experiential. Jackson (2004) notes that fear of crime emerging from economic or social disadvantage can be said to be expressive. Therefore, we examine whether forms of fear of violence may in part be a reflection of the respondents' socially/economically disadvantageous position in general, rather than just a result of direct experiences of violence. Balvig (1990) suggests that fear of crime could reflect rational reactions to victimization, or it could be an expression of adverse living conditions, or, thirdly, it could be induced by mediated visions of crime. These mechanisms can be seen as hypotheses for empirical research. Thus, our aim is to study fear of violence so that all three aspects are simultaneously present: crime media use, prior victimization of violence, and economic strain. Furthermore, we aim to address indirectly a problem that haunts observational-correlational studies, namely self-selection in crime media consumption. To control for this individual-level propensity, we deploy a simple variable capturing personal interest in news of violent crime. We feel this is also justified because in a modern

media context, messages are so ubiquitous that they influence people over and above personal interest in violent crime.

## **DATA AND METHODS**

Our data were based on the Finnish National Crime Survey (FNCS-2017) collected in fall 2017. The original sample was 14,000, and the final number of respondents was 6,201 (response rate 44.3%). The participants were aged 15 to 74 years old. The respondents were selected through random sampling from the Population Information System of Finland. The FNCS consists of a standard annual part and changing thematic modules. For the purpose of the present research, the changing module included questions regarding the use of media and information sources on violent crime. Questions on socio-demographic characteristics, fear of street violence, and avoidance behavior are located in the standard part of the FNCS, whereas perceiving terrorism as a threat to respondents themselves is part of the thematic module. After removing all the cases with missing information in any variable used in the analysis, the data consisted of 5,341 respondents. Weighted data consisting of 5,354 cases was used in the analysis. This was done by computing balanced weights on gender, age, and region of residence. The purpose of this was to improve the precision of the estimates. A descriptive table of the variables is included in Appendix 1.

### *Dependent variables*

In terms of fear of street violence, we asked the following: “*During the last 12 months, have you been afraid of becoming a victim of violence when going out in the evening?*” with a response scale from 1 to 6, where 1 = not at all, 2 = once or twice a year, 3 = 3-6 times a year, 4 = 7-10 times a year, 5 = about once a month or more, 6 = I do not go out in the evening. The response scale was then recoded into two classes, where 1 = No (not at all) and 2 = Yes (once or more in the past year). This was to make a clear distinction between those who had been afraid and those who had not. Option 6 (= I do

not go out in the evening) was coded missing and respondents who answered in this way were not included in the analysis, as we wanted to examine only those respondents who actually went outside their home in the evenings. In terms of avoidance behavior, we asked the following question: “*Is there an area near your home, within an approximately one kilometer radius, which you avoid because of a threat of violence?*” with a response scale 1 = No, there is not, 2 = Yes, one place, 3 = Yes, more than one place. For the purpose of the analysis, this was also recoded in two classes where 1 = No, there is not, and 2 = Yes (one or more places). This was done because we wanted to examine respondents who avoided an area near their home (compared to those who did not avoid a certain area).

Regarding perceiving terrorism as a threat to oneself, we asked the following question: “*How severe a threat do you think the following issues [terrorism<sup>1</sup>] are to you?*” with a response scale from 1 to 5, where 1 = No threat, 2 = Quite small, 3 = Some threat, 4 = Quite severe, 5 = Very severe. The response scale was then recoded into two classes, where 1 = Some threat or less, and 2 = Quite severe or Very severe. This was done because we wanted to focus on respondents who perceive terrorism as a severe threat to themselves.

### *Independent variables*

The independent variables were constructed in three groups: predictors related to crime news consumption, experiential fear, and expressive fear. In addition, gender<sup>2</sup> and age categorized in three groups (1 = 15-34 years, 2 = 35-54 years, and 3 = 55-74 years) were adjusted for in the analysis.

The data on consumption of crime news sources is based on the flexible module that was designed specifically for the 2017 survey. The first crime news consumption-related independent variable indicates the respondent’s types of crime news sources. The survey included 20 items of

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<sup>1</sup> Worry about terrorism was one item in a list of 13 items representing new types of threats (such as immigration, refugees, environmental threats and catastrophes, religious extremism, online hate speech, etc.).

<sup>2</sup> Only male and female response options in the survey. In the future third option will be added to the national surveys.

potential crime news sources, including traditional media sources, new media and social media sources, alternative information sources, face-to-face interactions, official information channels, and research publications. Concerning each crime news source, the respondents were asked the following: “How much information about violent crime in Finland do you get from the following sources?” with a response scale from 1 to 5, with 1 = None, 2 = A little, 3 = Some, 4 = Quite a lot, and 5 = Very much. For the purposes of the analysis, the response scale for each crime news source was coded into two classes where 1 = Some information or less, and 2 = Quite a lot or very much information. This was done in order to separate heavy consumers from not-so-heavy consumers of such content. Based on the selected items, we constructed three separate crime news consumption profiles (see Table 1 for a more detailed list of items included under each media type) that reflected three main types of media and information sources within the current media landscape. These were *traditional media*, *social media*, and *alternative information sources*. Respondents who answered that they get quite a lot or very much information from one or more items included in a certain type of media or information source were categorized with that media profile. The three variables are not exclusive, as being an active follower of a specific media type does not preclude a person being an active follower of other media as well. In order to create exclusive classes, respondents were grouped into four classes where 1 = Does not get much information from any media type, 2 = Gets information only from traditional media, 3 = Gets information from social media (and traditional news media) but not from alternative information sources, and 4 = Gets information from alternative information sources (and other media types).

**Table 1.** The three media items

<b>Traditional media</b>	<b>Social media</b>	<b>Alternative information sources</b>
<i>Television and radionews</i>	<i>Facebook or Twitter</i>	<i>Alternative news web site, MV-lehti</i>
<i>Newspapers, online/mobile</i>	<i>Instant messenger services WhatsApp or Facebook Messenger</i>	<i>Alternative discussion forum, Hommaforum</i>
<i>Tabloids, online/mobile</i>	<i>Other social median content or discussions</i>	
<i>Newspapers, print</i>		
<i>Television documentary and current affairs programs</i>		
<i>YLE, MTV and other similar news broadcasters</i>		

To adjust for self-selection in news consumption, we included respondents' general interest in crime news, which was based the following question: *"How interested are you in news and information about violent crime?"* with a response scale 1 to 5, where 1 = Not at all, 2 = Quite little, 3 = Some, 4 = Quite a lot, 5 = Very much. The items were then recoded into two, where 1 = Low interest (some interest or less) and 2 = High interest (quite a lot or very much interested). This was done to separate those with high interest from respondents with lower interest.

Experiential fear was conceptualized as past victimization experience based on two forms of victimization: violence and property. Past violent victimization was based on the following question: *"Has anyone acted in the following ways towards you in the last 12 months?"* with the following options listed in the survey: obstructed your movement or grabbed you, pushed or shoved you, slapped you, pulled your hair, hit you with a fist, hit you with a hard object, kicked or strangled you, used a weapon, forced you into sexual intercourse or other sexual interaction against your will, tried to force you into sexual intercourse or other sexual interaction against your will, used any other kind of physical violence against you. Each of the options had the following response options: 1 = No one, 2 = current or former spouse, 3 = someone other close to you, 4 = acquaintance or someone unknown to you. The item was then recoded into a single item of past victimization experience, indicating any violent victimization during the past 12 months, with a dichotomized scale where 1 = no and 2 = yes. This was done to separate victims from non-victims.

Past property victimization was based on the following question: *"Has the following occurred to you in the past 12 months?"* with the following options listed in the survey: theft of personal property, such as wallet, purse, credit card, or mobile phone, taking place outside your home; you have been cheated so that you never received a product or service for which you had already paid; your debit or credit card has been used without permission or money has been stolen from your bank account by other means; your personal identification has been pried upon or abused for the purpose

of theft, fraud, or other crime. The item was then recoded into a single item of past property experience, indicating any property victimization during the past 12 months, with a dichotomized scale where 1 = no and 2 = yes. This was done to separate victims from non-victims. This same exact list and division of offences into violent crime and property crime is used in the Finnish National Crime Survey reports.

The respondents' socioeconomic status, indicated by financial situation and education, was used as a measure of expressive fear. The respondents' financial situation was based on the following question: "*When taking into consideration all the income in your household, is covering your expenses...?*" with the following response scale 1 = Very difficult, 2 = Difficult, 3 = Quite difficult, 4 = Quite easy, 5 = Easy, 6 = Very easy. This was then dichotomized into a variable indicating financial difficulties where 1 = No (easy to cover expenses, options 4-6) and 2 = Yes (difficult to cover expenses, options 1-3). This was done to separate respondents that had financial difficulties from those who did not. The respondents' education included the following options: 1 = A university degree, 2 = A polytechnic degree, 3 = A post-secondary vocational degree, 4 = The Finnish matriculation examination, a baccalaureate, or an equivalent degree, 5 = A vocational or a specialist vocational degree (upper secondary), 6 = Basic education (e.g. elementary, primary, secondary or junior high school), 7 = None of the options. The variable was then recoded into three, where 1 = Tertiary education, 2 = Secondary education, 3 = Primary education or less.

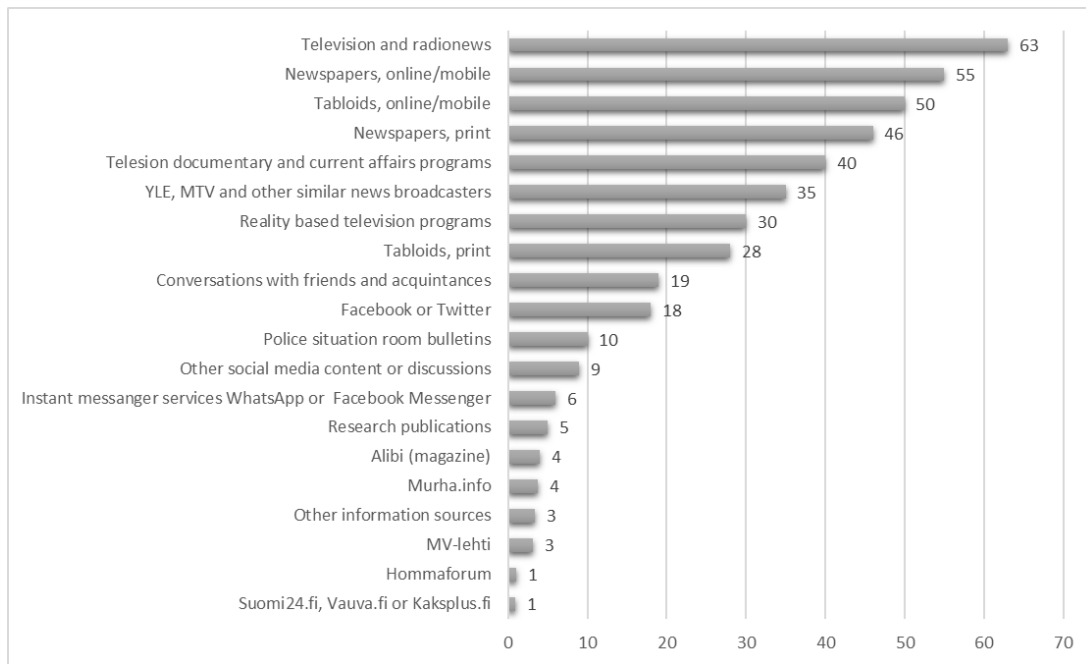
### *Analysis*

In terms of analyzing the data, the independent variables were used in logistic regression models to predict 1) fear of violence, 2) avoidance behavior, 3) perceiving terrorism as a threat to oneself. We used logistic regression for the analysis because it is an appropriate method for analyzing dichotomized variables. The results of the regression models were reported using average marginal effects (AME) and standard errors (SE). Compared to more conventional odds ratios, average

marginal effects are more suitable for comparing models (Mood 2009), and thus using AME coefficients allows us to compare the effects of independent variables across models. The marginal effects also provide statistics that are more straightforward to interpret. The data analysis was done using R.

## **RESULTS**

In Figure 1, we show the percentages of different news and information sources from which respondents gained *quite a lot* or *a lot* of information about violent crime. According to the results, we see that the traditional media sources serve as the main sources of information on violent crime. It is noteworthy, although not particularly surprising, that online versions of many traditional media outlets these days serve as key information sources regarding violent crime. Furthermore, in terms of social media, approximately 20% of respondents actively gained information about violent crime from Twitter or Facebook. In terms of the so-called alternative information sources, 3% of the respondents actively received information about violent crime from MV-lehti, which is also the most commonly used alternative information source in Finland (Newman et al., 2018).



**Figure 1.** Media and information sources regarding violent crime, percentage of 15–74 year olds, Finland 2017 ( $n = 6,141$ ).

The full results of the three logistic regression models are shown in Table 2. In the text, we discuss only statistically significant findings with a primary focus on the media–fear link.

### *Fear of street violence*

The results of the regression model for fear of street violence (table 2.) show that respondents who followed social media and alternative information sources regarding violent crime were more likely to report fear of street violence compared to those only following traditional media. That is, respondents following traditional media were 5% more likely, respondents following traditional and social media were 10% more likely, and respondents following traditional, social, and alternative information sources were 16% more likely to report fear of violence compared to respondents not actively following violent crime news. In terms of interest in violent crime news, respondents with a high interest in violent crime news were 7% more likely to report fear of street violence compared to respondents with a low interest in violent crime news.



In terms of gender, females were 18% more likely to report fear of street violence than males. In terms of age, the youngest age group (15-34 years old) was most likely to report fear of street violence, the oldest age group (55-74) being 23% and 35-54 year-olds 11% less likely to report fear of street violence. Respondents who had experienced past violence victimization were 21% more likely to report fear of street violence than respondents who had not been victims. Respondents who had experienced past property crime victimization were 8% more likely to report fear of street violence compared to respondents who had not been victims. In terms of education, respondents with secondary education were 8% more likely and respondents with tertiary education were 11% more likely to report fear of street violence compared to respondents with just primary education. In terms of financial situation, respondents who reported having difficulties covering expenses were 9% more likely to report fear of street violence compared to respondents who found it easy to cover their expenses.

#### *Avoidance behavior*

The results indicate no associations between consumption of violent crime news and avoidance behavior (table 2.). In terms of interest in violent crime news, respondents with a high interest in violent crime news were 5% more likely to report avoidance behavior compared to respondents with a low interest in violent crime news. In terms of gender, females were 8% more likely to report avoidance behavior than males. In terms of age, the youngest age group (15-34 years old) was most likely to report avoidance behavior, the oldest age group (55-74) being 5% and 35-54 year-olds 3% less likely to report avoidance behavior.

Respondents who had experienced past violence victimization were 10% more likely to report avoidance behavior compared to respondents who had not been victims. Respondents who had experienced past property crime victimization were 6% more likely to report avoidance behavior compared to respondents who had not been victims. In terms of education, respondents with

secondary education were 3% more likely, and respondents with tertiary education were 4% more likely to report avoidance behavior compared to respondents with just primary education. In terms of financial situation, respondents who reported having difficulties covering expenses were 5% more likely to report avoidance behavior compared to respondents who found it easy to cover their expenses.

**Table 2.** Fear of street violence, avoidance behavior and perceiving terrorism as a threat. Logistic regression models, average marginal effects (AME).

		Fear of street violence		Avoidance behavior		Terrorism as a threat	
		AME	SE	AME	SE	AME	SE
Crime news sources	None						
	Only traditional media	0,052**	0,017	0,017	0,014	-0,004	0,015
	Social media (+ traditional media)	0,095***	0,02	0,013	0,016	0,045**	0,017
	Alternative information sources (+ social media + traditional media)	0,163***	0,039	0,051	0,031	0,223***	0,039
Interest in violent news	Low						
	High	0,073***	0,015	0,047***	0,012	0,113**	0,013
Gender	Male						
	Female	0,184***	0,012	0,077***	0,009	0,039***	0,009
Age	15-34						
	35-54	-0,112***	0,016	-0,034**	0,012	-0,014	0,011
	55-74	-0,231***	0,017	-0,051***	0,013	-0,012	0,012
Past violent victimization	No						
	Yes	0,207***	0,018	0,101***	0,015	0,038**	0,013
Past property crime victimization	No						
	Yes	0,082***	0,019	0,061***	0,016	0,068***	0,016
Education	Primary education						
	Secondary education	0,084***	0,019	0,034*	0,0145	-0,012	0,015
	Tertiary Education	0,118***	0,02	0,037*	0,0155	-0,015	0,016
Financial difficulties	No						
	Yes	0,085***	0,013	0,051***	0,0106	0,051***	0,01

\* = p<0,05, \*\* = p<0,01, \*\*\* = p<0,001.

### *Perceiving terrorism as a threat to oneself*

Respondents who also followed the social media and alternative information sources regarding violent crime were more likely to report perceiving terrorism as a threat to oneself compared to those following only traditional media (table 2.). That is, the results show that respondents following traditional media and social media were 5% more likely, and respondents following traditional, social, and alternative information sources were 22% more likely to report perceiving terrorism as a threat compared to respondents not actively following news on violent crime. In terms of interest in violent

crime, respondents with a high interest in violent crime news were 11% more likely to report perceiving terrorism as a threat compared to respondents with a low interest in violent crime news.

In terms of gender, females were 4% more likely to report perceiving terrorism as a threat than males. Respondents who had experienced past violence victimization were 4% more likely to report perceiving terrorism as a threat compared to respondents who had not been victims. Respondents who had experienced past property crime victimization were 7% more likely to report perceiving terrorism as a threat compared to respondents who had not been victims. In terms of financial situation, respondents who reported having difficulties covering expenses were 5% more likely to report perceiving terrorism as a threat compared to respondents who found it easy to cover their expenses.

## **DISCUSSION**

The aim of this research was to explore the association between consumption of news and information on violent crime and fear of violence in the forms of street violence, avoidance behavior, and perceiving terrorism as a threat to oneself in the contemporary context of the current cross-media landscape. Past research examining the relationship between crime news and fear of crime has focused heavily on the role of traditional media, whereas this study aimed at providing new information and fresh perspective by including both social media providers and so-called alternative information sources in the analysis.

### *Main findings*

The results show that the traditional media still serve as the main source of information regarding violent crime. However, about one in five respondents (18%) had used Facebook or Twitter actively as an information source on violent crime. In the past few years, the rise of various so-called alternative information sources has been quite notable. According to a study on active consumers of

the Finnish alternative media MV-lehti, crime stories are the main reason for some of the readers to visit the site (Noppiari and Hiltunen, 2017). However, our findings also show that only a very small proportion of the adult population uses alternative information sources actively as sources of violent crime information. This would indicate that their actual societal reach is not particularly extensive in the context of the current study.

Our findings resonate well with past research that has established a connection between crime news consumption and fear of crime. However, we add to the prior research by establishing that the emergence of both the social media outlets and the different alternative information sources have very likely further contributed towards the increasing risk of fear of violence. The use of alternative information sources on consumption on violent crime news has a particularly strong association with fear of violence.

Our overall findings are somewhat alarming in the sense that Finland, for example, has in fact seen notable reduction of many traditional forms of crime over recent decades. Similar declining crime trends have been witnessed in many Western societies as well. Therefore, there appears to be a paradox of sorts, as news and information content about violent crime has never been so extensive, yet at the same time youth delinquency (Anonymous citation, 2016) and homicide (Lehti et al., 2019) have hit all-time lows in Finland. Despite the actual trends in crime, news and information about crime continues to sell, therefore the paradox remains. In fact, in Finland 70 per cent of respondents report perceiving that violence in Finland has increased over the past few years (Anonymized citation, 2018).

However, our findings do also show that self-selection, respondents' own interest in violent crime, associates with the risk of fear of violence. This would indicate that not everyone is a passive consumer of crime, but some are more actively seeking such content (see also Williamson et al., 2019). Next, we discuss our findings in more detail.

## **Fear of street violence**

Prior research has shown a connection between consumption of crime news and general fear of crime (e.g. Hollis et al., 2017; Chiricos et al., 1997; Chiricos et al., 2000; Romer et al., 2003; Smolej, 2011). We add to prior research by showing that besides consumption of traditional news, using social media and alternative information sources as information sources on violent crime (along with past crime victimization, economic strain, and self-selection in crime news) was associated with fear of street violence. While our design cannot prove a causal relationship, adjusting for prior victimization and interest toward crime news content (as a proxy for self-selection processes) is consistent with such a link.

The analysis also shows that, in addition to past crime victimization experience, economic strain is related to both fear of street violence and avoidance behavior. These findings corroborate that there are robust experiential and expressive elements in fear of violence; the radical changes in the media landscape have not changed this. Women and younger respondents were more likely to report fear of street violence. It is a common finding that women have been more likely to report fear of crime (e.g. Gilchrist et al., 1998), and this applies in our study as well. Past research indicates that despite being less likely to become a victim, older people tend to be more likely to report fear of crime compared to younger people (LaGrange and Ferraro, 2017). However, they also argue that this is the case because many of the fear of crime measures are poorly operationalized, thus influencing the kinds of estimates they produce (LaGrange and Ferraro, 2017). Therefore, our measure of asking respondents whether they had been afraid of becoming a victim of violence when going out in the evening, rather than asking about fear of street violence on a more general level, might explain why the younger respondents in our study reported higher levels of fear of street violence. Therefore, fear of street violence cannot be explained by a single or dominating cause; rather, it appears to be the sum of different contributing factors.

### **Avoidance behavior**

It could be argued that avoidance behavior serves as a more advanced reaction to crime, as it is a behavioral reaction resulting from fear of something. We did not detect any associations between media use patterns and avoidance behavior. However, general interest in news on violence, a variable we used primarily as a control for self-selection effects, was associated with avoidance behavior. Past crime victimization, economic strain, and relatively high education were also linked to such behavior. Our findings therefore suggest that the media effect operates on a more abstract level, and that avoidance behavior is influenced by a more concrete interest in news on violence in general, along with having actual negative experiences. It may be that self-selection in consumption of crime media, as captured by a higher interest in consumption of news on violent crime, derives from these past negative experiences.

### **Perceiving terrorism as a threat**

Perceiving terrorism as a threat to oneself serves as perhaps the most abstract form of fear of violence, at least from the premise of it being the least likely form of violence victimization. The findings indicate that perceiving terrorism as a threat to oneself was linked with the consumption of social media, and particularly alternative information sources on violent crime. Furthermore, self-selection in consumption of violent crime news, gender, past victimization (both violence and property), and financial difficulties were also connected with perceiving terrorism as threat to oneself. The results are somewhat similar to the findings regarding fear of street violence, but in the context of perceiving terrorism as a threat to oneself, it seems that social media and alternative information sources, along with past victimization experiences, play a more pertinent role. This indicates that such perceptions are perhaps linked to a more specific group of respondents.

## **Conclusions**

When all our analyses are compared, it appears that fear of street violence is influenced by active consumption of all types of media. The more widespread the consumption of social media and alternative information sources was, the more likely respondents were to report fear of street violence. In contrast, perceiving terrorism as a threat to oneself is linked to a more specific use of new types of social media and information sources, finding which is actually in line with findings from study by Williamson and colleagues (2019). This might indicate that fear of terrorism resonates slightly more with self-selection and more active information seeking, than perhaps with passive consumption of information through traditional media. In contrast, media use patterns are not associated with avoidance behavior. This could mean that decisions to avoid certain areas near one's home because of threat of violence may be determined by real-life perceptions and experiences of the local security situation, rather than media-derived assessments. In terms of the tripartite conceptual model (media-induced, experiential, and expressive dimensions), the findings suggest that fear of violence manifests in all three dimensions. The notable exception is that avoidance behavior appears unrelated to consumption of crime news. Furthermore, the use of alternative information sources on consumption on violent crime news seems to have a particularly strong association with fear of violence.

In terms of both fear of street violence and avoidance behavior, we also found that respondents with secondary or tertiary education were more likely to project fear of violence, and to avoid certain areas near their homes, than those with just primary education. This finding warrants further research. However, a possible explanation could be that people with higher levels of education are more sensitive to crime-related threats. Prior research suggests that those with higher levels of education deploy a wider concept of violence, and manifest above-average sensitivity to defining conflicts as violence (Kivivuori, 2014). Therefore, this may be the case with our findings, as well. If so, our findings suggest that education-related sensitivity (or lower tolerance of violence-related risks) is independent of crime news consumption patterns, prior victimization, and economic strain.

### *Limitations*

The current study focuses on the Nordic context of high trust, high affluence societies. The findings might therefore be different in other countries. Some existing research suggests that there are differences in this regard, for instance, between U.S. and Canadian students (Kohm et al., 2012). Concluding from this, we might offer the hypothesis that context-induced differences are likely in cross-Atlantic comparison and comparisons across different welfare regimes in Europe.

Some of the media and information sources included in the study may be, to some extent, stigmatized in the context of mainstream society. In other words, social desirability effects may have resulted in the underestimation of the prevalence of people who use ‘alternative’ media as sources of information about violent crime.

Since our data is cross-sectional, the temporal ordering of the central variables is partially a matter of interpretation. However, we feel it safe to suggest that the link between consumption of crime news and fear of violence is not a spurious association reducible to prior victimization, economic strain, or personal self-selection in crime news exposure, and that associations between economic strain and fear responses are not reducible to media consumption patterns. Finally, the role of self-selection and respondents own interest in violent crime also raises the question of causality. This is something that should be addressed in more detail in future studies.

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**Appendix 1.** Descriptive table of the variables used in the analysis. n=5453 (weighted).

		N	%
Fear of street violence	No	3517	64
	Yes	1936	36
Avoidance behaviour	No	4647	85
	Yes	805	15
Perceiving terrorism as a threat	Some threat or less	4687	86
	Quite severe or Very severe	766	14
Gender	Male	2835	52
	Female	2618	48
Age	15-34	1826	33
	35-54	1832	34
	55-74	1796	33
Crime news sources	None	692	13
	Only traditional media	3434	63
	Social media (+ traditional media)	1168	21
	Alternative information sources (+ social media)	160	3
Interest in violent news	Low	4249	78
	High	1204	22
Past violent victimization	No	4641	85
	Yes	812	15
Past property crime victimization	No	4849	89
	Yes	604	11
Financial difficulties	No	3813	70
	Yes	1640	30
Education	Primary education	649	12
	Secondary education	2733	50
	Tertiary Education	2071	38