

THE WORLD HOMICIDE SURVEY

European area



Results :
factors explaining
differences in homicide rates in Europe

The World Homicide Survey

The World Homicide Survey aims to explain the factors of the homicide rate's variations across the world using concepts which have, according to the dynamic theory of violence, a direct link to the prevalence of homicides, such as the presence of criminal organizations, corruption, firearms, and the general efficiency of criminal justice agencies.

Indeed, the dynamic theory of violence, developed by Marc Ouimet (University of Montreal), upholds the idea that a country's contextual factors (poverty, inequality, numbers of young people, etc.) act on other concepts with a more direct link to homicides. According to this theory, researches using variables such as the country's per-capita Gross Domestic Product or the Gini coefficient of income inequality do not measure what is closely related to homicide.

There are almost no available variables to characterize the most direct causes of homicide, but the project aimed to gather data by asking knowledgeable individuals their opinions on the social conditions in their country, the functioning of the criminal justice and the forms and prevalence of violence and homicide. This methodology is similar to that employed by *Transparency International* when creating its Corruption perception index.

The World Homicide Survey has been carried out by the University of Montreal and, in Europe, by the National Observatory on Crime and Criminal Justice (ONDRP) with the support of the CSFRS (*High Council for Education and Strategic Research*).

<https://inhesj.fr/ondrp/world-homicide-survey>

The ONDRP

Created in 2003, the National Observatory on Crime and Criminal Justice (ONDRP) is a department of the National Institute for Advanced Studies in Security and Justice (INHESJ).

Its missions are to measure and analyse crime tendencies in France and abroad through victimizations surveys, annual police data and statistics produced by all type of administration services, professional organizations and private bodies. The ONDRP produces regular publications and is involved in national and international research projects.

<http://inhesj.fr/ondrp/english>



A. Measurement of concepts

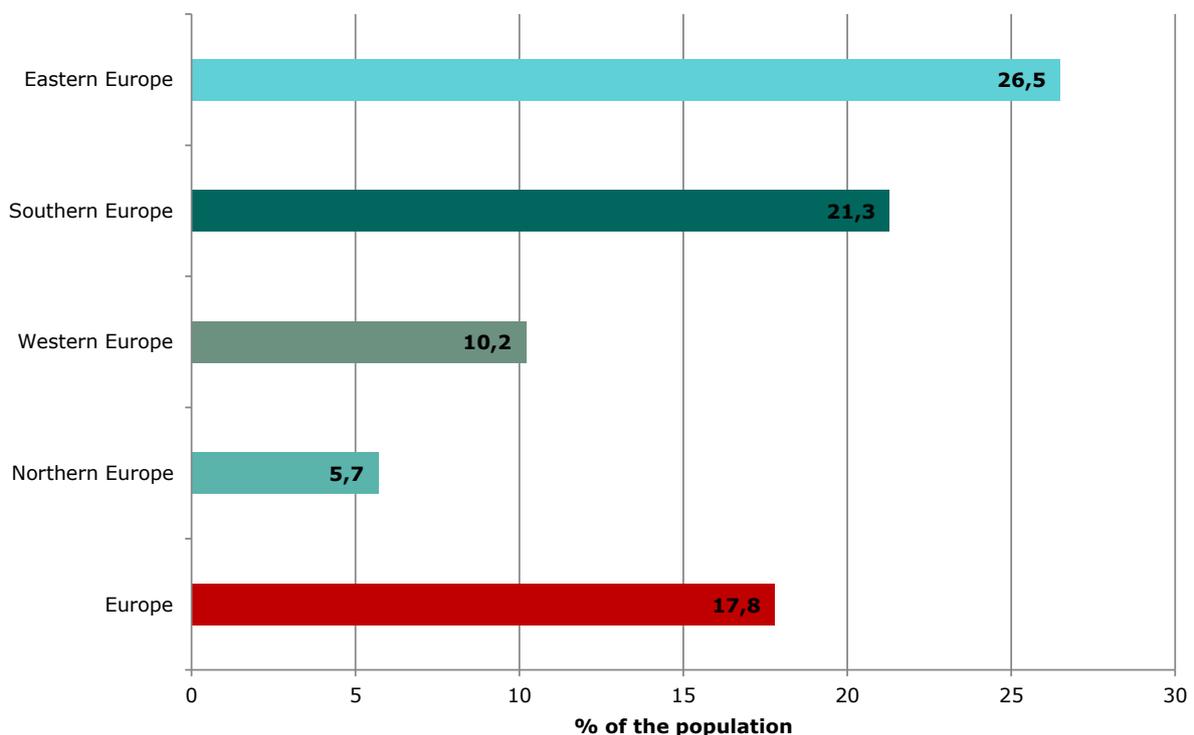
Variables on countries' general context, violence triggers and quality of formal social control were used to best explain the differences in homicide rates observed in Europe.

As a result and in compliance with the World Homicide Survey (WHS) methodology, 618 questionnaires were completed in the 44 Continental European states, detailing experts' perceptions of the situations in their countries.

1. Contextual factors

The conceptual model of the World Homicide Survey (WHS) postulates that the characteristics of a territory's ecosystem have an indirect impact on homicides, affecting the quality of formal social controls and the presence of violence triggers, both of which have a direct influence. Such factors were measured using indicators provided by international organisations, with the exception of the estimation of the proportion of the population living in extreme poverty ("having difficulty feeding themselves"), which comes from the WHS questionnaire.

Figure 1. Proportion of the population living in extreme poverty, by European regions

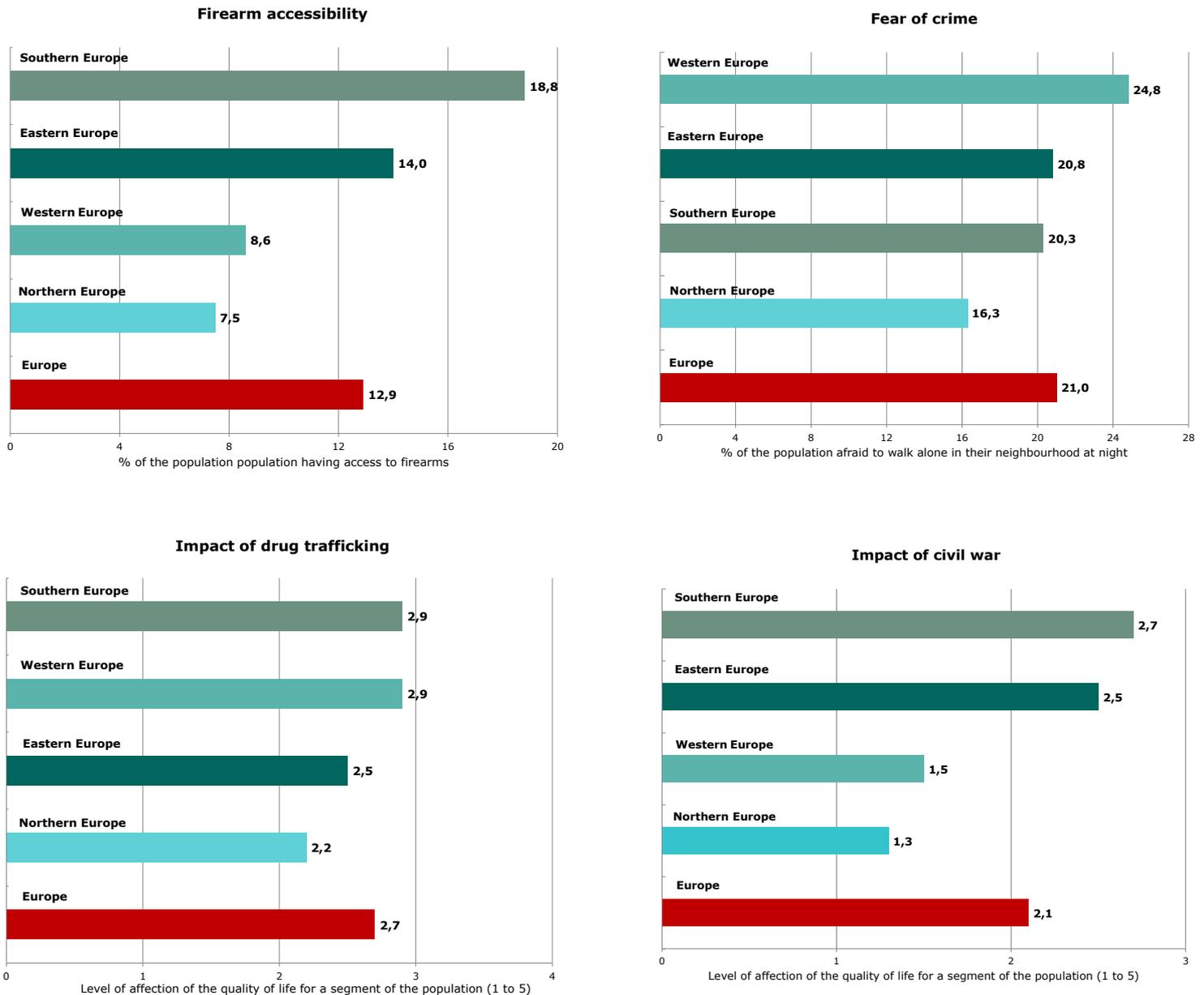


Source: WHS, European area – ONDRP processing

2. Violence triggers

Violence triggers comprise forms of social or criminal behaviour that may have an impact on the prevalence of homicides. The measurement of these concepts come from the WHS questionnaire.

Figure 2. Violence triggers, by European regions

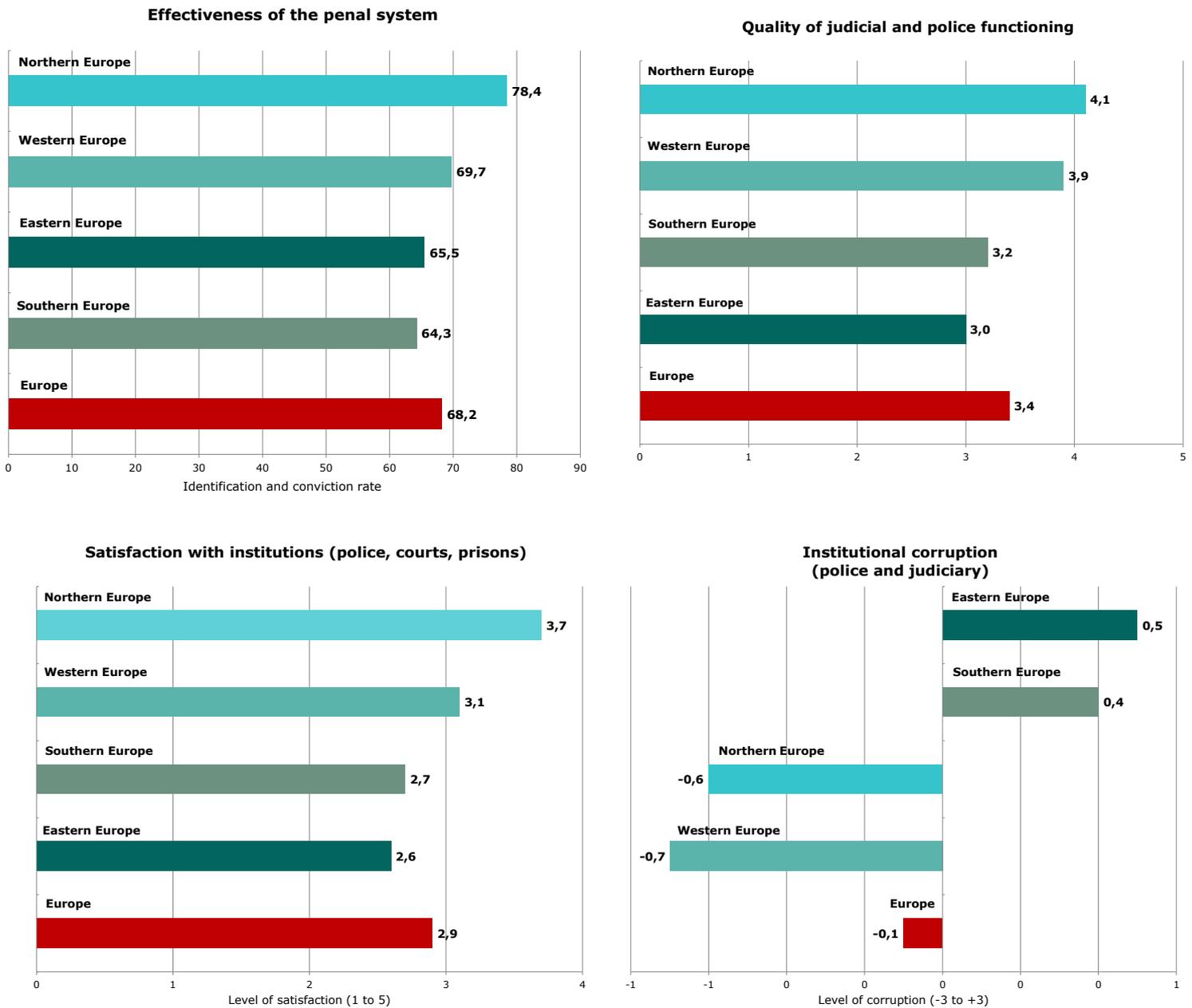


Source: WHS, European area – ONDRP processing

3. Quality of formal social control

In the World Homicide Survey, the police, courts of justice and prisons are taken to be the institutions exercising forms of formal social control (Ouimet & Guay, 2015). The measurement of these concepts come from the WHS questionnaire.

Figure 3. Quality of formal social control, by European regions



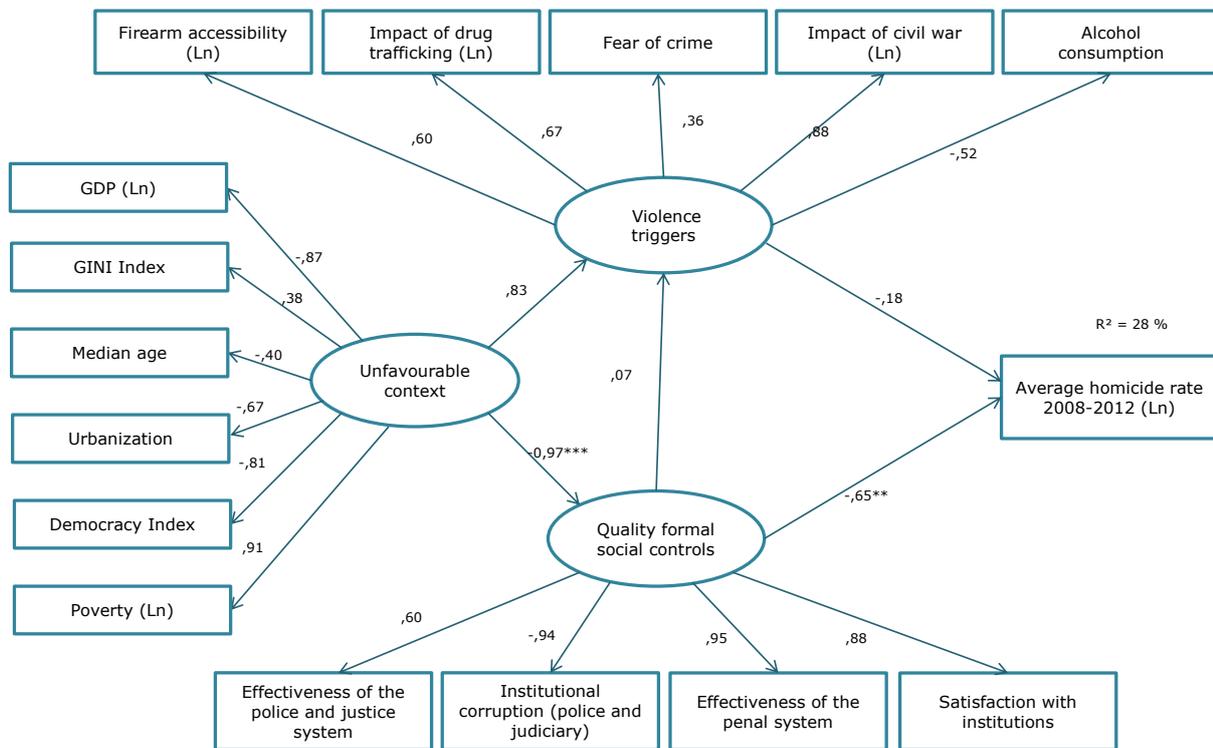
Source: WHS, European area

B. Structural equation models

To know what impacts the overall homicide rate, the female homicide rate and the firearm homicide rate, we shall present the results of the three structural equation models.

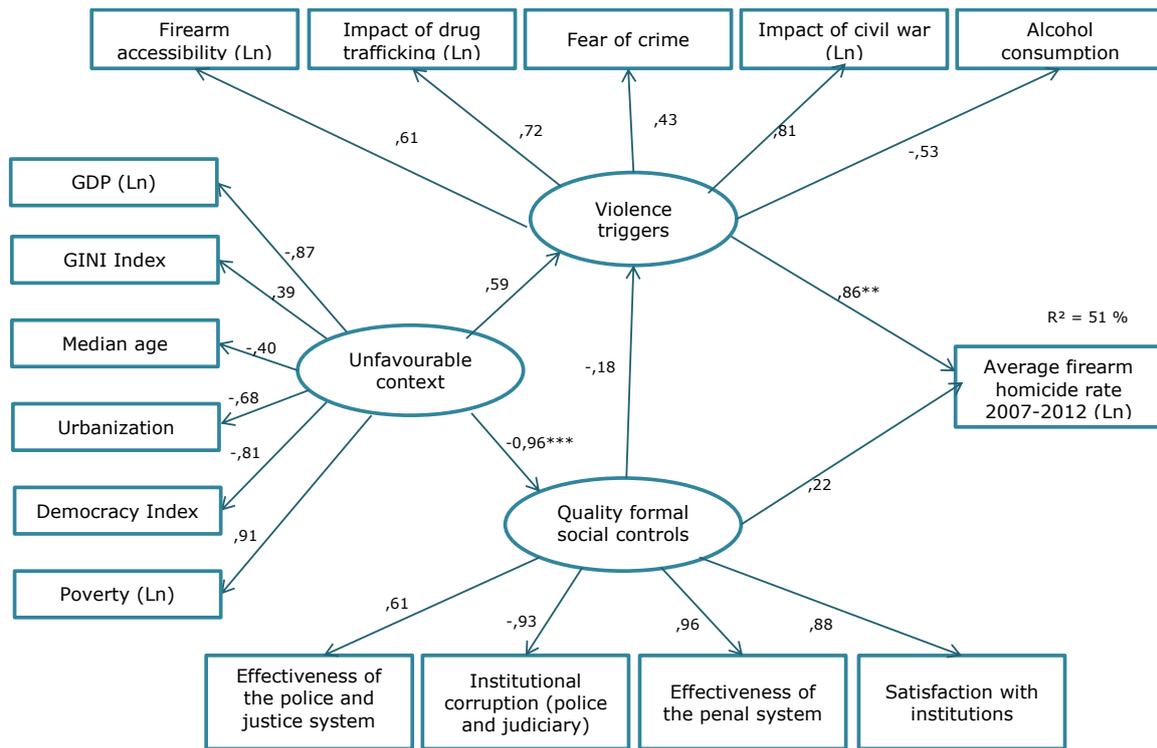
Figure 4. Structural equation models applied to European countries' various homicide rates (44 countries)

Model 1: Structural equation model applied to the average homicide rate



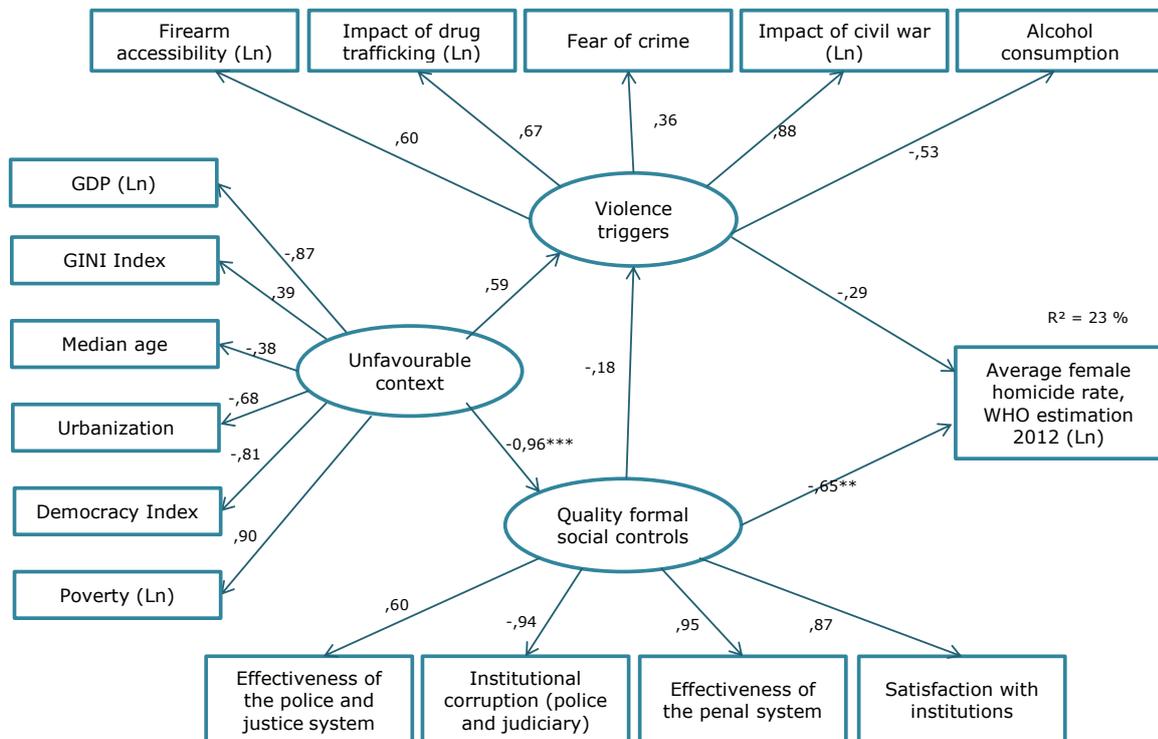
Source: WHS, European area – AMOS – ONDRP processing

Model 2: Structural equation model applied to the firearm homicide rate



Source: WHS, European area – AMOS – ONDRP processing

Model 3: Structural equation model applied to the female homicide rate



Source: WHS, European area – AMOS – ONDRP processing

Model 1's results are interesting on several levels. We may first of all observe that they suggest that an unfavourable ecosystem leads to a significant drop in levels of formal social control (-0.97) but has no effect on violence triggers.

We then find that quality formal social controls have a significant negative effect on the average homicide rate in Europe (-0.65). In other words, the better social controls are, the fewer homicides there are. This observation is important as the concept of quality social control is composed of variables not previously available and/or comparable. All the variables composing the concept of formal social control are also significantly connected with the overall homicide rate (see Annex 2). In contrast, violence triggers seem to have no influence on the variation of the homicide rate in Europe.

Finally, the model as a whole explains 28% of the variation in the homicide rate. The explained variance may seem low but is important because it explains over a quarter of the variation of a complex criminal phenomenon.

The homicide rate per 100,000 inhabitants groups all types of homicide together (assassinations, settling of scores, spousal and intrafamily homicides, homicides by firearm, etc.), making it a highly heterogeneous variable. It is, after all, reasonable to think that explanatory factors may differ depending on type of homicide. A number of authors have already highlighted such differences depending on type of homicide (ONUDD, 2013; Stamatel J. , 2014; Ousey & Lee, 2010). Explanatory factors would be different when it comes to explaining the prevalence of female homicides (model 3) or firearm homicides (model 2).

Model 2 explains 51% of the variation in the firearm homicide rate in Europe. We find that an unfavourable context has a significant negative influence on formal social controls in countries (-0.96), but that quality of formal social control does not seem to have an influence on firearm homicides. As with the preceding model, the context has no significant impact on the presence of violence triggers.

Only the presence of violence triggers has a significant influence on variations in the firearm homicide rate in Europe (0.86). The more violence triggers are present in a country, the higher the firearm homicide rate is. All variables composing the violence trigger concept are also connected with the firearm homicide rate (see Annex 2).

The results of model 3 explain 23% of the variance in the female homicide rate in Europe. As with the preceding analysis models, we were able to observe that context variables have a significant influence on the quality of formal social controls but not on the presence of violence triggers.

As with the first model, only formal social controls impact the female homicide rate in the countries under study, as do all the variables composing them (see Annex 2), so that the better the quality of formal social controls, the fewer female homicides there are (-0.65).

C. Discussion

Results highlight two important factors. First of all, they show the suitability of the conceptual model that we use and validate the dynamic theory of violence that explains it. They also show the importance of a number of predictors that had not previously been measured. These factors undoubtedly play a part in explaining the variation in the homicide rate, and the World Homicide Survey has enabled standardised measurement of these new predictors. Our results also highlight the need to break down the general homicide rate into different types of homicides, as influencing factors differ depending on type of homicide.

Validity of the new conceptual model

According to the new conceptual model, factors identified by comparative literature on the homicide rate have an indirect impact on the variation in homicide rates. These factors, which we refer to as “contextual factors”, represent broad concepts such as a country’s poverty, inequality and demography, on which it is difficult to act directly in the hope of lowering the homicide rate. Such factors first of all act on other concepts closer to the act itself, such as proper functioning of formal social controls or on what we have called the presence of violence triggers. However, these concepts have not previously been measured or comparable for all the world’s countries.

Results suggest that the conceptual model is relevant as it explains a not insignificant part of the variation in the homicide rate in Europe, overall and specific alike (female homicide and firearm homicide). The first analysis model’s results suggest that our conceptual model explains 28% of the variation in the overall homicide rate, those of the second model explain over 50% of the variation in the firearm homicide rate, and the last model’s 23% of female homicides.

The suitability of this conceptual model is also highlighted through the impact that our newly created indicators have on the variation in homicide rate. The dynamic theory of violence assumes that contextual factors first of all influence two major intermediary concepts which have a more direct impact on the homicide rate. Our results show that these two major concepts created by our questionnaire on perception of violence have a real and significant influence on the variation of the homicide rate in Europe. This is above all the case with formal social control, which has a significant impact on the variation in the overall homicide rate (model 1) and the variation in the female homicide rate (model 3).

The fact that these four new indicators are also significantly linked to the overall homicide rate and the female homicide rate in Europe confirms the importance of factors measuring the quality of formal social control in explaining the variation in the homicide rate. The impact these indicators have on the variation in the homicide rate highlights the notion of impunity. When a society’s police and judicial institutions function poorly, laws are not obeyed and citizens tend to resort to private justice (Ouimet M. , 2016). Several researchers have made the same observation: in such situations, homicides may be committed by citizens in reprisal, to punish perpetrators of a crime with their own hands (Black D. , 1989; Brillon Y. , 1985; Nédélec S. , 1999)

The quality of formal social control also has an influence on the variation in female homicide rates. Several authors consider that most societies are based on structures evidencing a patriarchal world view (Bourdieu & Wacquant, 2004; Sharp, 2003). This often results in inequalities between men and women as regards access to power in a society (Montmagny & Ouimet, 2014). This situation may lead to conflicts (often in the spousal sphere), which, in the event of poor functioning of judicial institutions, are settled privately.

A number of Eastern European countries (Russia: 6 per 100,000 inhabitants, Moldavia: 4.9, Belarus: 3.7, Latvia: 3.5, etc.) have very high female homicide rates compared with the European average: 1.45 per 100,000 inhabitants. This may be explained by post-communist structural, political and economic changes that have increased women’s vulnerability in the face of violence, in particular

domestic violence, sex trafficking and sexual harassment in the workplace (Nikolic-Ristanovic, 2004). Russia, for example, decriminalised domestic violence in January 2017 even though Russian researchers stress the high levels of spousal homicides (Eckhardt & Pridemore, 2009; Johnson, 2001; Gondolf & Shestakov, 1997).

The other newly created major concept is the presence of violence triggers in a country. The concept groups together information on firearm availability, alcohol consumption, men's and women's fear of crime, local and international drug trafficking and present or past civil war. Most of these indicators were either not measurable or not available for all the countries in our sample. Nonetheless, their creation and the more general concept of the presence of violence triggers have shown how useful they are in explaining the variation in the firearm homicide rate (model 2). It should be borne in mind that this model's explained variance is 51% and that the presence of violence triggers is the only concept that has an impact on the variation in the firearm homicide rate.

Although several studies have already highlighted the connections between various precipitating factors and the homicide rate, methodologies employed did not enable identification of these factors as relevant in the explanation of the variation in the homicide rate.

This is in particular the case with firearm availability. The results of a number of studies suggest that accessibility of firearms is linked to the homicide rate (Killias, van Kesteren, & Rindlisbacher, 2001) or, more specifically, to the prevalence of firearm homicides of women (Hemenway, Miller, & Azrael, 2000; Killias & Markwalder, 2012). But data enabling measurement of firearm availability comes from The International Crime Victims Survey (ICVS) and is only available for 30 countries (25 of them in Europe). The only analyses carried out have been correlation tests to see whether any significant connection exists between two variables. This type of analysis must be interpreted with caution as a correlation between two variables may finally prove to be an artificial relationship. The results of the studies mentioned above were therefore difficult to apply universally.

The results of our multivariate analyses suggest that firearm availability as measured by the WHS impacts the variation in the firearm homicide rate in Europe. Although the connection between these two variables may seem obvious, this is the first time it has been demonstrated in the context of Europe, a region in which firearm homicides do not have the same motives as in other regions of the world. European countries in which there is high firearm availability record quite low homicide rates (Norway, Switzerland, countries of former Yugoslavia, etc.). In the European context, firearms are associated more with violent ways of life than with legitimate defence (Killias & Markwalder, 2012).

Violent ways of life may also be highlighted by the indicator measuring the prevalence of drug trafficking in a country. No concept measures drug trafficking in a uniform fashion. However, several authors have highlighted the connection between drug trafficking and homicides, explaining the link by the violent way of life that large-scale local or international drug trafficking engenders (Ousey & Lee, 2002; Aebi & Linde, 2010)

The need to break down the homicide rate

The last few decades have seen many researchers trying to understand why some countries have higher homicide rates than others. There has therefore been a great deal of research on identifying factors influencing variations in the homicide rate.

Numerous factors have already been highlighted to explain differences in homicide rates between countries. But we have known for several years now that measurements of homicide rates integrate crimes with a variety of motives. The characteristics of spousal homicides are not the same as those for homicides committed to settle scores between criminals (Scherr & Langlade, 2014), and yet both types of homicide are included in the measurement of countries' homicide rates.

It is reasonable enough to think that factors influencing spousal homicides differ from those impacting settlement of scores between criminals. As far as we know, no study has yet demonstrated the existence of such differences between predictors depending on type of homicide.

Several studies have sought to arrive at a better understanding of female homicides, often by contrasting them with the characteristics of homicides committed against men. As a result, we know that, in our societies, the male homicide rate is higher than the female homicide rate and that the difference may partly be explained by the fact that women have fewer “opportunities” to get themselves killed (Montmagny & Ouimet, 2014; Daly & Wilson, 1997).

Although most such results highlight specific factors that might explain the variation in the female homicide rate (Stamatel, 2014, Montmagny & Ouimet, 2014; Gartner et al., 1990), they do not tell us if the same factors might have a similar impact on the variation for other types of homicide.

The finding is the same when we analyse the literature on firearm homicide. It should be borne in mind that the use of firearms to commit homicides is quite common across the world: according to the UNODC, 41% of all homicides committed in 2012 were by firearm (UNODC 2013). This is a very specific type of homicide with characteristics of its own. Several authors have highlighted its specificities (Killias & Markwalder, 2012; Scherr & Langlade, 2014; Killias & Haas, 2002), which are often due to the context in which the crime is committed. According to Killias and Markwalder (2012) using a firearm enables perpetrators to avoid any resistance that their victims might put up, kill several people at once, kill without inflicting blows, and makes suicide easier after commission of a crime. These authors consider that, in the European context, firearms are seldom associated with legitimate defence but rather with violent ways of life. Although few studies have specifically sought to identify the factors influencing the variation in the commission of homicides by firearms from one country to another, this type of homicide’s characteristics lead us to think that specific factors different from those influencing homicides committed against women may explain the prevalence of this type of crime.

Using the results of our study and, more generally, those of the World Homicide Survey (Veselji, Langlade, & Gourdon, 2017), we have been able to test a set of variables on several types of homicide and have found that the factors influencing homicides against women are different from those influencing homicides committed by firearm. To our knowledge, no other comparative study of homicide has been able to scientifically establish the fact that different factors may be at the origin of different types of homicide. It is therefore essential to break down the homicide rate in order to reach a better understanding of the reasons behind these crimes.

Limitations

The first limitation concerns the specification of some of our conceptual models. The explained variance for models 1 and 3 may seem low (28% for the overall homicide rate and 23% for female homicides) and it is reasonable to think that other factors may improve the explained variance for these two models. Nonetheless, it should be borne in mind that explained variances are seldom very high in social sciences. As an example, in 2012, McCall *et al.* produced a study of the variation in homicide rates between 117 European cities. The results of their multivariate analyses are pertinent and the explained variance of their models only varies between 24.5 and 29% (McCall et. al., 2012).

All the same, it would be pertinent to be able to incorporate certain variables into our model 3, all of which have been highlighted in the literature as being factors influencing the variation in the female homicide rate. We should envisage incorporating measurements of the divorce rate and of women’s role in certain societies (Stamatel J. , 2014; Gartner, Baker, & Pampel, 1990). However, such indicators are not available for all the countries in the world or in Europe, and it was therefore impossible to incorporate them into our model.

The second limitation has to do with our sample. Our research aimed at identifying the factors explaining the variation in homicide rates in Europe. Our sample is therefore made up of 44 countries: not very large and also relatively homogeneous.

As regards the size of our sample, we could not increase it as we were specifically interested in the countries of Europe. If we had had a larger sample, our results would undoubtedly have been more robust and generalisable. All the same, it is worth noting that Ouimet (2015) carried out similar tests with a sample of 148 countries and came up with almost identical results, with a higher explained variance (48%) (Ouimet & Guay, 2015).

The difference in explained variance between their results (48%) and ours (28%) may be explained by the homogeneity of information contained in our European sample. The scope of data for each country in Europe is less than that for all the world's countries. The difference between Russia's overall homicide rate (the highest in Europe: 10.3 for every 100,000 inhabitants) and Iceland's (the lowest in Europe: 0.4 for every 100,000 inhabitants), for example, is significantly less than the difference between Japan's and Honduras' homicide rates (0.3 and 90 for every 100,000 inhabitants respectively).

In spite of everything, the size of the sample is still a constraint when it comes to generalisability of our results. It will therefore be necessary to eventually test the pertinence of models 2 and 3 at global level.

Annex. Distribution of number of respondents by European geographical area

Northern Europe (N=90)	Finland	19	Western Europe (N=164)	France	111
	United Kingdom	12		Belgium	11
	Estonia	11		Holland	11
	Sweden	9		Switzerland	11
	Latvia	8		Germany	9
	Denmark	7		Austria	7
	Ireland	7		Luxembourg	4 or less
	Norway	7			
	Lithuania	6			
	Iceland	4 or less			
Southern Europe (N=161)	Spain	25	Eastern Europe (N=203)	Georgia	39
	Montenegro	21		Russia	31
	Portugal	17		Ukraine	30
	Italy	14		Armenia	24
	Bosnia and Herzegovina	13		Azerbaijan	13
	Croatia	12		Slovakia	12
	Greece	10		Romania	10
	Albania	9		Hungary	9
	Serbia	9		Czech Republic	9
	Turkey	8		Bulgaria	8
	Macedonia	7		Poland	7
	Slovenia	7		Belarus	6
	Malta	6		Moldova	5
Cyprus	4 or less				

Source: WHS questionnaire – Europe – ONDRP data processing



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