Comment on Kärholm et al. “Designing the Swedish Crime Harm Index: an Evidence-Based Strategy”

Jerzy Sarnecki^{1,2,3}

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Abstract

Question Is the Swedish Crime Harm Index as presented and corrected in this Journal as reported by Kärholm et al. *Cambridge Journal of Evidence-Based Policing* (2020a, b) a valid method for studying the long-term development of crime and of the harm caused by crime?

Data Cited publications in this journal, Swedish crime statistics, and other evidence on historical changes in Swedish crime reporting.

Methods Documentation of the ways in which crime counting in different categories has changed over time in Sweden.

Findings The authors do not seem to have considered important aspects of the way the Swedish crime statistics are assembled. An overestimation of the increase in cases of homicide and of the penalty value of offenses that do not usually result in custodial sentences are two examples. The authors also fail to consider legislation that criminalizes previously unpunished (harmful) behavior.

Conclusion The historical CHI, as it has been constructed by Kärholm et al. is not an appropriate method for studying the long-term development of crime and of the harm caused by crime. In a time of net-widening and increasing punitiveness in the justice system, the CHI will show an increase even with no change in actual crime behavior. A simple measure of the current harm caused by crime may be useful for short-term analysis, planning, and the evaluation of police efforts, but it is inadequate as a means of studying the longitudinal development of the crime problem. In the calculation of CHI, harm caused by crimes that do not lead to imprisonment should also be included.

Keywords Crime Harm Index (CHI) · Measurement of crime trends · Crime statistics · Transparency in research · Penalty value

✉ Jerzy Sarnecki
Jerzy.Sarnecki@criminology.su.se

Extended author information available on the last page of the article

Introduction

This comment constitutes an assessment of the 2020 Kärholm et al. articles in this journal on “Developing the Swedish Crime Harm Index: An Evidence-Based Strategy.” In their article as corrected, the authors propose how a Swedish Crime Harm Index (CHI) can be constructed using (1) a measure that functions as a proxy for the harm caused to society by different types of crime, and (2) a measure of how many crimes of different types are committed. As for harm, data on average prison sentences is used for each crime, measured in days. Police data on reported offense counts are used as a measure of the extent of the different crime categories.

The focus of the present comment is on one of the examples of practical use of CHI that Kärholm et al. used: the development of crime harm in Sweden during the years 1989–2018.

Context

The main aim of a society’s criminal policy should be to protect citizens from the harm caused by crime. The Cambridge Crime Harm Index (CHI), as presented by Sherman et al. (2016), may constitute an important tool for achieving this goal. In a report to the Swedish Expert Group for Studies in Public Economics (ESO, Sarnecki 2019), I propose that a CHI should be introduced within the Swedish police in order to streamline the goal management of the police’s local activities and as an evaluation instrument. It can, for example, be of benefit to a local police organization to have a simple measure of the crime situation in different places when planning hot spot policing or to have an overall measure of clearance rates. At the seminar at the Ministry of Finance where my report was presented in August 2019, both the Minister of the Interior and the representatives of the Swedish Police expressed their support for this way of using a CHI.

When I presented these suggestions, I had not reflected on the use of a CHI to study long-term developments in crime-related harm at the national level. These thoughts came to me following my reading of “Developing the Swedish Crime Harm Index: An Evidence-Based Strategy” (Kärholm et al. 2020a). My reading indicated that the Kärholm et al. article (as corrected) contains some methodological ambiguities and possibly also some errors. It also suggests reasons to be skeptical in general about using the CHI as a measure of long-term crime trends.

If used for studying the long-term development of crime harm, and if based on register data such as crimes reported to the police and sentencing statistics, the Swedish CHI may risk amplifying, in an uncontrolled way, the methodological problems already faced by studies of crime trends based on register data. Although such problems are generally associated with statistics on reported crime, they may become even greater if these crimes are included in an index. When the total penalty value of different types of crime is aggregated, it becomes even more difficult to trace the causes of changes in the CHI.

Unfortunately, I have no access to information beyond the published articles about the method used by Kärholm et al. to construct the Swedish CHI, and this comment therefore builds on an attempt to reconstruct their method.

Crime Trends in Sweden

References to the Kärholm et al. article began to appear in the Swedish criminal policy debate in the autumn of 2020, being used as an argument that the crime situation in Sweden has deteriorated. However, the claim that crime harm in Sweden has increased sharply over the past decades does not reflect Swedish criminologists' assessments of the crime trend in the country (Bäckman et al. 2020; Samecki and Carlsson 2020). We know, for example, that serious crimes and in particular serious violent crimes in total have not increased recently. Thus, we know that the total level of homicide in Sweden, calculated per 100,000 inhabitants, is slightly lower today than in 1989—even though lethal shootings in criminal circles have increased sharply during the last decade (Sturup et al. 2018) and that the number of serious armed robberies has decreased sharply (Samecki 2021). We also know, from statistics published by the National Board of Health and Welfare, that the number of people treated for violent injuries by health care providers has decreased (Socialstyrelsens statistik, National Board of Health and Welfare statistics 2020). At the same time, we have seen an increase in assault crimes reported to the police (at least until the beginning of the 2010s, when these crimes began to decrease) even though victimization studies do not indicate any substantial increase in violence during the last 30 years (Brå 2019c; SCB 2018). Increased reports of assault in parallel with decreasing injuries and a stable level in self-reported exposure indicate that it is reports of less serious cases that have increased, which is thus very likely due to an increasing propensity to report. Other crime categories that have increased among offenses reported to the police during the period covered by the Kärholm et al. article are offenses against liberty and peace (Chapter 4 of the Swedish Criminal Code), and sex offenses (Chapter 6 of the Swedish Criminal Code). Both types of crime are discussed below. Fraud has also increased, at the same time as the number of reported offenses in the major crime category of theft has halved, since the end of the 1990s. The picture of crime trends in Sweden thus seems to be mixed, but no unambiguous sharp increase can be observed (Brå Statistics 2020a table 10La_anm2_fr1950 and Database of Reported Crimes, Brå Statistics 2020b).

There is further reason to question the results presented by Kärholm et al. (2020a) concerning the increase in Crime Harm in Sweden over the past 30 years. This question concerns primarily the period since the year 2005, when the Swedish CHI according to Kärholm et al. suddenly started to increase. The Swedish National Council for Crime Prevention's (Brå) statistics on the total number of prison months imposed annually in Sweden for violations of the Criminal Code (statistics are available since 1995, see Fig. 1) show that the total prison months imposed for violations of the Criminal Code in Sweden per 100,000 inhabitants (here operationalized as crime harm)¹ have not increased. What the statistics actually show is that the number of prison sentences has decreased, while the average severity of the sentences has increased (Kärholm et al. 2020a, Tables 430La-1995–2018).² This development can be compatible with the results presented by

¹ Life sentences excluded. The number of life sentences imposed in Sweden during the period covered by the Kärholm et al. comment has varied between about 10 and 20 per year. The largest number of such sentences were imposed in the mid-2000s. No increasing or decreasing trend in the number of life sentences can be observed. The penalty value of life imprisonment corresponded to an average of 15 years' imprisonment at the beginning of the period shown in the figure, and 25 years at the end of the period (Brå 2015; Brå 2019a).

² As the serious offenses (see above) have not increased, the more severe sentences are due to tightening of the law and its application.

Kärrholm et al. only under the assumption that the efficiency of the Swedish legal system suddenly began to deteriorate sharply from around the year 2005—during the period during which the Swedish CHI according to Kärrholm et al. increases. There is no support for this hypothesis, however.

Problems with Reviewing the Kärrholm et al. Article

“Crime statistics require a radical transformation if they are to provide transparent information for the general public, as well as police operational decision-making,” write Sherman et al. in “How to Count Crime: the Cambridge Harm Index Consensus” (Sherman & Cambridge University associates 2020). The overall problem with the Kärrholm et al. comment (Kärrholm et al. 2020b) is that it lacks transparency. It is difficult even for a person who is well acquainted with Swedish crime statistics to understand how the Swedish CHI has been constructed, and in particular how the authors have calculated the historical development of the CHI in Sweden reported in Fig. 3 of the comment. Let me formulate here some key questions and thoughts I have after reading their article.. Several of the problems discussed below are mentioned in the article, but it is not stated which solutions to these have been applied.

1. Which database has been used to calculate the average penal value (crime harm) for each crime category?
2. The three statistical tables that have probably been used (Brå criminal statistics Table 430La-2016–2018)³ report data for just over 200 crime categories based on the Swedish Criminal Code; have all of these been used to construct the index? If so, what penalty value have all the different crime categories been attributed to and why not report these in the publication? (Table 1 and the accompanying diagram in the comment indicate only the average penalty value for a few crime types).
3. As appears from the comment, Swedish convictions data are reported on the basis of the principal offense (thus, the crime that has the most severe punishment according to the law) when more than one offense is included in the same conviction and sentence. Have the authors taken this into account and if so, in what way have they ensured the penal values of the offenses examined have not been contaminated with the penalties relating to other offenses included in the same sentence? (If the penalties for all offenses in a sentence are included, it probably means that the CHI will overestimate the level of crime harm. This effect will probably be greatest for the most serious crimes, and the strength of this effect may vary over time which can complicate longitudinal comparisons).
4. The authors suggest that the index should not be based on sentences imposed on repeat offenders. At the same time, they claim that data on the number of previous

³ Since I do not have access to information about the sources from which Brå Statistics (2020a) have extracted their data on Swedish sentencing, I have, after consultation with the National Council for Crime Prevention (Brå), concluded that these constitute the tables that are most suitable for such calculations. When I tried to recreate data from Table 1 in the Kärrholm et al. comment for some of the crime categories (see Table 1 in Appendix) using these data from Tables 430La-2016–2018, I did not get an exact match. However, my estimates are so close to the results presented by Kärrholm et al. that there is no doubt that both calculations are based on the same data.

Fig. 1 Total number of prison months imposed for violations of the Criminal Code in Sweden per 100,000 inhabitants and year, life imprisonment not included (see note 1). Source Kärholm et al. 2020b, Brå 2020 Tables 430La-1995–2018

convictions for convicted persons is not available (which is not correct, see Brå table 470La-2016–2018). What are the consequences for the index that recidivism has not been taken into account?

5. How has the penal value for the life sentence been calculated?
6. How has the “penalty value” for forensic psychiatric care and other types of treatment been calculated?
7. How has the penalty value for offenses punishable by fines and other non-custodial penalties been calculated? Imprisonment accounts for only about 15 percent of all sanctions for Criminal Code offenses in Sweden (Brå statistics, Table 420La-2016–2018). If Kärholm et al. base their index only on sanctions that include prison (which seems to be the case) and use it to measure the harm of offenses reported to the police for which imprisonment is rare, they greatly overestimate the CHI for these crimes. Concrete examples of the consequences of such a calculation method will be shown later in the comment.
8. Individuals between the ages of 15 and 20 receive reduced penalties in Sweden, which has effects on the total penalty value of the sentence imposed for various types of crime. Have the authors taken this into account and if so, in what way? If not, what is the penalty value for, e.g., youth custody?
9. What is the source of data for the number of different criminal offenses per year in Sweden between the years 1989 and 2018?
10. If the Brå statistics Table 10La-ann 2 fr 1950 have been used together with the Database of Reported Crime (Brå 2020) to measure the number of reported offenses over time, how have the authors dealt with the incompatibility between the data in these sources on one hand, and Tables 430La-2016–2018 on which the CHI calculations of the penalty value of individual crime categories appear to have been based? How have they distinguished between reported cases of, e.g., murder and manslaughter, which have different crime harm values according to Table 1 in the comment, in order to assign them different CHI values? And further, how has the penalty value been calculated for, e.g., attempted murder and manslaughter, which is (as far as I understand) not specified in the basis used for the authors’ calculations of CHI (Brå statistics, Table 430La-2016–2018)?
11. Has a distinction been made between information on the number of robberies and *armed* robberies, which are specified separately in Table 1 (or actually *aggravated* robberies, which is the classification used in Swedish legislation)? It seems (from Table 1 in the comment) that such a distinction has not been made. The

distinction would, however, at least in part, be possible with the help of data from Brå's 2020 statistics, Tables 430La-2016–2018 and the Database of Reported Crime (Brå 2020b). This issue is important since aggravated robbery (such as robberies against cash-in-transit, banks, shops, and the like) has decreased sharply in Sweden towards the end of the period examined (Samecki 2021), while the total number of robberies reported to the police has been fairly constant. According to Brå's statistics (Table 430La-2018), robbery has an average penalty value of about 570 days and aggravated robbery 1620 days.

12. Have the authors excluded from the calculations other crimes than Criminal Code offenses, i.e., violations of non-criminal code (which include among other weapons offenses, tax offenses, and traffic offenses, including drink driving)? In that case, what are the consequences of this exclusion? The combined sentences resulting from convictions for these offenses in 2018 amounted to just over 34 percent of the total prison time imposed in Sweden (with the exception of life sentences, Brå statistics, Tables 430La-2016–2018). These offenses also include drug offenses, some of which have very high penalty value, although the sentences imposed for these crimes have decreased over the last decade (Brå statistics, Tables 430La-2008–2018).

The ambiguities described above primarily refer to the lack of information provided on how the historical development of the CHI in Sweden between the years 1989 and 2018 has been calculated (Fig. 3 in Kärholm et al. article), but several of these ambiguities also apply to other parts of the Kärholm et al. comment.

Problems with Calculating Swedish CHI for Homicide

The development of lethal violence is of great importance for assessing the problem of crime in a society. Unfortunately, there is also a great deal of ambiguity as to how the issue of lethal violence has been handled by Kärholm et al. For example, how do they distinguish between completed lethal violence and attempted crime as well as between murder, manslaughter, and assault leading to death? The above-mentioned (question 10) lack of compatibility of different data sources complicates such distinctions and requires careful methodological discussion.

The curve presented in Fig. 3 in the Kärholm et al. comment corresponds to official statistics on reported offenses against the Criminal Code in Sweden published by Brå (Brå statistics 2020a Table 10La-ann 2 fr 1950). More detailed data on reported crimes can be found in the Database of Reported Crime (Brå 2020). There are differences in how the data on homicide (completed and attempted) are reported in these two sources, so both should be utilized. If these data sources have been used, there are several issues that the authors should have, but have not addressed. The issue that is perhaps the most characteristic question associated with the Kärholm et al. analysis is that of how the police in Sweden count cases of homicide.

Data on crimes reported to the police are transferred from the police register (and, where applicable, the registers of other authorities), whose purpose is primarily administrative, to the Swedish National Council for Crime Prevention (Brå), which is the Swedish agency responsible for the national crime statistics. In the case of homicide, the police

record cases where the cause of death is unclear as *suspected* homicide (murder, manslaughter or assault leading to death, without distinguishing between these categories) for further investigation. The subsequent investigations often show that the cause of death was something other than lethal violence and the police investigation is then closed, but this does not affect the reporting statistics, which are not subsequently corrected.

The largest problem with the police's recording of homicide appears to be that the information is coded incorrectly by individual officials (Brå 2020). The decentralization of the reporting system has, among other things, led to an increase in these errors. This has in turn meant that there is a substantial over-reporting of homicide cases in the Swedish statistics on reported crime. With regard to homicide, however, it is possible to correct these errors, although unfortunately this is not the case for many other crimes. *This latter point provides an indication of the general difficulties associated with studying crime on the basis of statistics on reported crime.*

Like many other countries, Sweden has another data source that includes data on homicide in the form of Cause of Death Statistics (National Board of Health and Welfare Statistics 2020). The discrepancy between the data from these statistics and the statistics on reported homicides recorded by the police has meant that Brå, since 2002, has manually examined all cases registered by the police as reported homicides. This has led to a new statistical series "Confirmed Cases of Lethal Violence" which is published annually by Brå, most recently in 2020 (Brå 2020). The data on the number of cases of homicide presented in this new statistical series is very much in line with that found in the cause of death statistics, which means that both sources (which are produced independently of one another and using completely different methods) must be judged to have high validity and reliability. See the diagram below. Note that the diagram only refers to *completed* crimes and does not include attempted homicide offenses.

Figure 2 shows that the statistics on homicides reported to the police in 2018 overestimated the number of actual homicides by a factor of more than three or by 341 cases (based on Brå's data on confirmed cases of lethal violence) and by slightly more when compared to the cause of death statistics (see Brå 2020.)

Other Problems with Using CHI to Study Long-term Crime Trends

In addition to the above, there are a number of more general problems associated with using the CHI to study the long-term development of crime harm. As has been mentioned above, these problems are linked to more general difficulties associated with the use of official crime statistics for the study of crime trends.

One problem is changes in legislation. These changes may, e.g., lead to a crime category being assigned a new definition by the legislature, which increases its penalty value, and this will thus affect the CHI without the nature of behavior having changed.

Sexual Crimes Swedish sexual crime legislation is illustrative in this regard. This legislation has been extensively revised in four waves of changes during the period 1998–2017 (Brå 2019b). In addition to including new instances of criminalization and increased penalties, these revisions have also meant that certain types of already existing sexual offenses have been redefined as rape. To take one example: according to an amendment to the Criminal Code introduced in 2005 (SFS 2005: 90, Government bill 2004/05: 45, ref. 2004/05: JuU16, rskr. 2004/05: 164), all crimes that had previously been

Fig. 2 Completed cases of homicide according to statistics on crimes reported to the police, vs. confirmed cases of lethal violence and cause of death statistics (Sarnecki and Carlsson 2020)

classified as sexual coercion were in principle reclassified as rape, which more than doubled the penalty value of these offenses (Brå statistics, Table 430La-2002–2005).

Murder and Other Homicide A similar problem concerns the difference between murder and other forms of homicide. A judgment in the Supreme Court from 2004 (NJA 2004 p. 176) led to a change in the assessment of intent in Swedish law enforcement. This meant that several cases of homicide that would previously have resulted in convictions for the offense of assault leading to death subsequently resulted in convictions for murder or manslaughter, with a sharp increase in the offenses' penalty value as a result. This change has also affected the penalty value for several other types of violent crime.

Other Violent Crimes Over the last thirty years, major changes have taken place in the general public's and the legal system's responses to violence, which have strongly affected the number of reported cases and the CHI over time. These include, among others, changes in the reporting of domestic violence, as well as in how employers deal with workplace violence and in how school principals deal with violent incidents between students at school. It can also be mentioned that Swedish police officers are obliged to report a violent crime and the like, even if they do not consider this appropriate or when the presumptive victim does not want the incident to be reported. The number of such cases has increased sharply after the year 2002 when some police officers were convicted of misconduct after they did not report an incident of violence (Brå 2009). The general public's propensity to report violence has also increased. Furthermore, increased penalties and new offense definitions within the crime category of assault have raised both the abstract and the concrete penalty value of offenses (see, for example, Brå 2014).

Other Crime Categories We can assume that the changes described above also apply to other crimes (see, e.g., the discussion on Chapter 4 of the Swedish Criminal Code

below), *which means that the national CHI will change even if crime itself (in terms of the number and harmfulness of certain acts) does not change.* New instances of criminalization also have the same effect. Behavior that has no penalty value is ascribed penalty value, which thus increases the level of the national CHI. A reasonable hypothesis is that Sweden and several other European countries are in the midst of an historical phase characterized by a general tendency towards increased penalties and new instances of criminalization, and that we would thus expect an increase in the CHI even without any changes in the extent and structure of harmful behavior in society.

CHI as a Measure of Historical Development in Crime Harm

Finally, there is what might be referred as an “ontological” question concerning the purpose of using a CHI as a measure of historical changes in the crime harm caused by crime in a given country. I will illustrate this issue by comparing how two different crime categories affect the development of the CHI in Sweden: For this purpose, I will return to the reasoning outlined above regarding Swedish statistics on homicide.

My assessment, despite great ambiguity, is that Kärholm et al. overestimate the actual number of completed cases of homicide in Sweden in 2018 by a factor of more than three. If their information were to be correct, Sweden would have extremely high levels of homicide measured by West European standards.⁴ If one calculates crime harm as I assume that Kärholm et al. have done, this would mean an overestimation of the national CHI by 1.3 million prison days per year.

This overestimation would only have a negligible effect (0.3 percent) on the aggregate level of the Swedish CHI for 2018 if it has been calculated according to what I assume to be the method employed by Kärholm et al. Even if homicides in Sweden had increased tenfold,⁵ the effect of this increase on the total CHI for Sweden would be less than one percent. The level of homicide, despite its enormous significance for perceptions of conditions in a country, thus has a negligible effect on the overall development of the CHI. Or put another way: the CHI calculated by Kärholm et al. seems to be highly insensitive to major changes in homicide, a category of crime that is of major importance for the social and political conditions in a country.

Let us compare homicide with the crime category “Offenses against Liberty and Peace,” Chapter 4 of the Swedish Criminal Code. Two major types of crime in Chapter 4 are unlawful threats and (non-sexual) molestation. In total, the crimes reported to the police in contravention of Chapter 4 Swedish Criminal Code have increased between the years 1989 and 2018 from 421 reported crimes per 100,000 inhabitants to 1615 per 100,000 inhabitants (Brå statistics, Tables 10La_anm_10_ar and 430La-2018). The CHI value for Offenses against Liberty and Peace accounted for 16.4 percent of the total Swedish CHI for 2018.

⁴ Levels that are on a par with Turkmenistan, Kyrgyzstan, or Pakistan (Our World in Data 2020).

⁵ To a level on a par with Eritrea, Barbados, or Paraguay (Our World in Data 2020).

A general criminological assessment indicates that the increase in the number of these offenses reported to the police is mainly due to changed attitudes (resulting in increased reporting) and changes in legislation, including many

- new instances of criminalization,
- redefinitions of offenses linked to increased penalties
- increases in the severity of penalties,

all of which are changes that have been introduced in Chapter 4 of the Criminal Code. It is unlikely that there has been an increase in the number of cases of harmful behavior covered by this chapter that in any way corresponds to the increase in registered offenses. The total penalty value for violations of Chapter 4 of the Criminal Code has increased over last thirty years almost three times. Here it can be argued that CHI seems to be highly sensitive to changes in the number of recorded Offenses against Liberty and Peace.

Molestation However, the problems associated with calculations of the CHI for Chapter 4 of the Swedish Criminal Code are significantly greater than this. Let us now examine the second largest category of crime in this chapter, *molestation*. During the years 2016–2018,⁶ approximately 160,000 such crimes were reported in Sweden (Brå statistics Database of Reported Crime). A total of 1649 of these offenses resulted in conviction (Brå statistics, Table 420La-2016–2018). Of these, a prison sentence was imposed in *16 cases* (Brå statistics, Table 430La-2016–2018). It is these 16 prison sentences that Kärholm et al., if I understand them correctly, have used to calculate the penalty value for molestation (which they have labelled “harassment” in Table 1 and Fig. 1 in their comment): 30-day imprisonment. One can assume first that the one percent of reported molestation offenses that resulted in conviction were, on average, more serious than the other 99 percent, which did not result in a conviction. A large proportion of the molestation offenses that did not result in conviction were not investigated by the police at all (Brå statistics, Table 300La-2016–2018), often because it was judged likely that no crime had been committed. The 16 cases of harassment for which the offender was given a prison sentence must in turn be expected to be much more serious than the offenses (again 99 percent) for which the penalty upon conviction was less severe than imprisonment, usually a fine. Thus, if the penalty value for the 160,000 harassment offenses is based on the 16 prison sentences, this must mean that the penalty value of these crimes is heavily overestimated. Since the number of report molestation offenses has increased sharply (namely by a factor of 2.4 per 100,000 inhabitants) during the period at issue, this also leads to an overestimation of the CHI. In the same way, Kärholm et al. have overestimated the CHI for several other

⁶ The years that Kärholm et al. state were used for the construction of their CHI for Sweden.

categories of crime that result in a low proportion of prison sentences and for which the number of offenses reported to the police has increased in recent years. Examples of some of these are mentioned in Table 1 in the Appendix.

This way of calculating explains why the overall CHI is as insensitive to serious crimes as lethal violence and so hypersensitive to the development of crimes with relatively low penalties, the latter are simply assigned unreasonably high penalty values. These crimes are many so their effect on the total CHI is great. As police reports of several of these crime categories have increased in recent decades, *this is probably also one of the explanations as to why the Swedish CHI is increasing sharply according to Kärholm et al.*

Calculating Means with Zeros One way to solve this problem is presented by Statistics Canada (2009) in the construction of their Crime Severity Index, where consideration is given not only to the penalty value of crimes punished with imprisonment but also in incarceration rate. If all crimes that did not lead to imprisonment were attributed weight 0, the effect of the crime of molestation on the total Swedish CHI would decrease by 99 percent. For all crimes in Chapter 4 of the Swedish Criminal Code (imprisonment rate 19 percent, Brå 2020 table 420la-2018), the effect on Swedish CHI 2018 would decrease from 16.4 to 3.1 percent. However, this solution also has serious weaknesses. One is that it does not take into account the selection of crimes that occur when the decision is made which of the reported crimes is to be investigated. Another is that it does not consider that even crimes that are not punished with imprisonment cause harm. At the Swedish Police Authority, an attempt is currently underway to construct a CHI where penalties other than imprisonment are given values, calculated in prison days, that are judged to correspond to their penalty value.

Changing Perceptions However, even if one were to succeed in overcoming all these technical problems, another problem remains: Perceptions of various criminal acts and of the damage they cause change over time. If one applies a contemporary CHI (expressed in terms of the penal values expressed in current legislation) to historical events, what conclusions might be drawn about the historical development of crime harm? Would fights or threats between two schoolboys have been considered as “harmful” 30 years ago as they would be today? We measure, so to speak, yesterday’s behavior with today’s yardstick.

Conclusions

The question as to whether a CHI should be used to study the long-term development of crime and crime-related harm requires an in-depth discussion. This comment leads me to doubt whether a CHI should be used for this purpose. There seems to be a clear risk that the problems associated with measuring crime trends in society with the help of police-reported crime will be amplified if these crime data are assigned different weights and then collapsed into an index.

Interpreting a longitudinal trend in crime harm at the macrolevel is inevitably a complex issue, even if such an analysis is carried out using correct data. A seemingly exact measure of changes in total national CHI seems to be of limited value if they cannot be linked to the specific societal and administrative factors that cause these changes. Since changes in different types of crimes often have different causes, we also need to measure the development of crime harm separately for these different crime categories. Division into CHI for violent crime and CHI for non-violent crime, which is done, e.g., by Statistics Canada (2009), would to some extent facilitate that kind of analysis. However, I think that this division is too gross, not even all violent crimes are affected by the same factors, not to mention all non-violent crimes.

If one still decides to carry out this type of analysis, it is necessary that the researchers involved have a very good knowledge of how the crime statistics in the country at issue are constructed, of whether and how the legislation has changed, as well as having other relevant criminological insights. In addition, analyses must be conducted and presented in a transparent manner so that the outcome can be examined by other researchers.

On this latter point, the article “Designing the Swedish Crime Harm Index: An Evidence-Based Strategy” is seriously flawed. Since I have not had access to information on how the historical CHI for Sweden has been constructed, I have had to attempt to reconstruct how this process has been carried out. If my assumptions are correct, the designers of the index have made mistakes as a result of their lack of awareness of the Swedish crime statistics, which have probably led to a substantial overestimation of the increase in the index over time.

Probably the most serious mistake is that of calculating the CHI only for those crimes that are punished by imprisonment. The base for such calculations becomes very small for crimes for which the normal penalty is something other than a custodial sentence. The offenses in these crime categories that are punished by means of imprisonment usually have a much higher penalty value than the other offenses in the same crime category. This leads to a systematic overestimation of the CHI for these crimes, which in turn leads to the impact of serious crimes that often result in prison sentences being underestimated in the aggregate CHI. Attributing lower weights to crimes that are not punishable by imprisonment would lead to these offenses having a significantly smaller effect on the total national CHI. That, in turn, would increase the index’s sensitivity to serious crimes with a high degree of incarceration and high penalty value.

These issues with measuring historical trends notwithstanding, I do believe that a CHI should be introduced in Sweden as an instrument to help the police plan and evaluate their short-term activities. My assessment, however, is that the method used by Kärholm et al. to calculate the CHI, with the shortcomings that I have presented, is not suitable for this purpose.

The method Kärholm et al. have employed partially counteracts the purpose of the CHI by not differentiating sufficiently between serious and less serious crimes. In a country where 85 percent of all the sanctions imposed by the criminal justice system do not include imprisonment, a CHI cannot reasonably be constructed on the basis of only those 15 percent of convictions that do result in this penalty.

Appendix

Table 1 Average number of prison days for some crimes according to Kärrholm et al. (2020a) and my calculations based on tables 430La-2016–2018 (Brå Statistics 2020a) and the proportion of prison sentences tables 420La-2016–2018 (Brå Statistics 2020b)

Crime	Brå Statistics (2020b) sentencing data	My attempt to reconstruct the calculations	Percentage of cases receiving prison sentences
Murder	3819	3663 ^a	77
Assault	126	109	14
Threatening behavior	61	60	7
Molestation	30	41	1
Fraud	175	149	5
Rape	770	759	87
Theft	?	60	22
Petty theft	30	30	0.05

The years that Kärrholm et al. state were used for the construction of their CHI for Sweden.

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Jerzy Sarnecki is Professor emeritus of Criminology at the University of Stockholm, Senior professor at the University of Gävle, and at Mid Sweden University in Sundsvall. He also holds a research appointment at the Swedish Institute for Futures Studies, Stockholm.

Affiliations

Jerzy Sarnecki^{1,2,3}

¹ University of Stockholm, Stockholm, Sweden

² University of Gävle, Gävle, Sweden

³ Mid Sweden University, Sundsvall, Sweden