EUCPN
EUROPEAN CRIME PREVENTION NETWORK

MYTHBUSTER:

WILL INNOVATION ALSO LEAD TO PROGRESS?

THE DIVIDE BETWEEN INNOVATION AND REPLICATION

Many of the prevention initiatives that are currently being implemented are not evidence-based, meaning that it is unclear how they operate, whether they are effective and which elements cause these effects.[1] This is partly due to the importance of being innovative. Many policy-makers and prevention workers want to do ground-breaking work when it comes to preventing crime, and some think that innovation cannot be achieved within evidence-based initiatives. Yet novelty does not have to be encouraged at the expense of reliability.[2] This paper demonstrates how replication can be integrated with innovation and equally contribute to evidence-based crime prevention.

THE DESIRE FOR INNOVATION

Innovation is very desirable in both crime prevention practice and policy.[3] It involves taking an idea or concept that is new or perceived as such, which meets an identified need and subsequently improves that situation.[4] An example is the creation of cognitive behavioural therapy in the 60s and 70s. It serves as a treatment against antisocial thoughts and behaviours and, after several successful trials, is now being used all over the world.[5] Usually, innovation contains a combination of ideas from different sectors and disciplines, such as teaching children the dangers of the online world through gamification.[6] That is why it is often pushed on a higher level, as upper management and decision-makers have the desire as well as authority to make such changes.[7]

However, innovation merely for the sake of change is not beneficial.[8] There are various limitations related to the character and workings of the public sector that make it difficult or undesirable to be innovative. First of all, authorities aim to manage both political and public expectations as well as ensuring efficient cooperation with public services and partners. These diverse, and at times competing, commitments can make innovation unwanted or even incompatible with existing plans. Furthermore, they often have strict administrative procedures to obey, which do not leave room for unexpected decisions or costs. These needs for predictability and accountability create a system that is difficult to reconcile with innovation.[9]

Besides these challenges, authorities have good reason to be cautious. Innovation can easily lead to failure, which is not an option for authorities that aim to protect citizens and create a safe society. This is why innovation in the public sector is best limited to the improvement of existing practices in order to contain potential risks, instead of creating entirely new initiatives based on limited evidence.[10] This is where replication comes into play.

THE NEED FOR REPLICATION

Replication entails the use of repeating studies, trials or evaluations to verify whether a certain prevention intervention is effective or if the results were a mere coincidence. Consequently, it identifies under what conditions an initiative is likely to be effective which, in turn, leads to strengthened knowledge of prevention practices and theories.[11]

Replication occurs in several forms, for example an anti-bullying school intervention can be exactly replicated by using the same implementation methods and target group and evaluation data as the original to try and confirm the results. Another option is to implement the same anti-bullying intervention in a different school to check if similar results can be obtained in a different location.[12]

There are multiple reasons why replication is necessary. Firstly, interventions are sensitive to the context in which they are carried out and the implementation techniques that are being used. A replication offers reliability regarding the obtained result and provides practitioners with increased confidence in its effectiveness.[13] Secondly, the criminal justice field encompasses many societal and political priorities (i.e. youth recruitment), making it vital for interventions to be effective instead of unintentionally leading to harm. This is why there should be just as much attention to replication as for innovative discoveries.[14]

They are, however, not very common, mainly because the desire for innovation discourages replication. Academics gain more recognition through new studies instead of repeating evaluations, whereas policy-makers or practitioners aim to show creativity when tackling upcoming issues.[15] Some observers even point to a replication crisis in which too few prevention initiatives are being replicated. As a result, the trustworthiness of evaluations and evidence is absent. This is particularly problematic for the field of crime prevention as initiatives (e.g. ineffective rehabilitation programmes) potentially lead to more harm than good.[16]

Even though replications are vital for the expansion of an evidence base, it is important to avoid assuming that they will automatically provide certainty. Replications can also contain errors, leading to the same, and at times, wrong, conclusion. In many cases, they only provide additional information for making an evidence-informed decision.[17] To illustrate, the EFFEKT programme aims to reduce teenage alcohol use through positive parenting strategies and problem-solving skills. Even though there have been numerous successful replications and evaluations, some only focused on the parental component of the programme while others used different follow-up periods. As a result, it becomes challenging for practitioners to identify which particular aspects of the programme are effective and could be transferred/replicated in their own schools.[18]

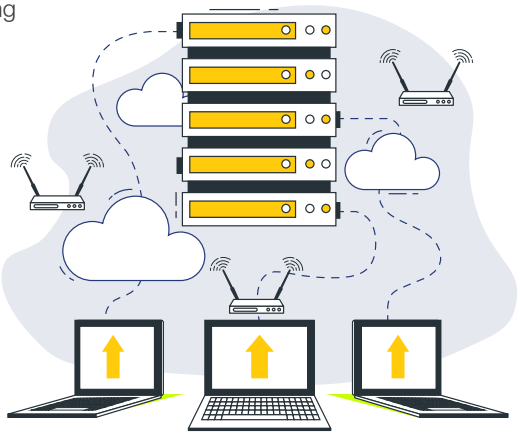
On the other hand, the failure to replicate certain results does not mean the initiative is ineffective. An exact replication is almost impossible in the field of crime prevention due to complex crime phenomena and various context-dependant factors (i.e. societal issues or political shifts that vary over time). For instance, Multisystemic Therapy (MST) has been implemented and evaluated across the world. Nevertheless, the results are not consistent across treatment settings. These differences seem to stem from the fact that project developers have been involved in some of the American evaluations as well as from the age of the target groups for which it is implemented.[19]

This is why replications should focus on particular initiatives to ensure the best and most useful results for practitioners. These include programmes on prominent issues that are likely to be implemented in practice or that are frequently mentioned in prevention courses or manuals.[20] For example, meta-analyses have shown that developmental prevention programmes are more effective when multiple risk- and protective factors are targeted among small groups of at-risk children. This information serves as basic, albeit relevant, evidence-based knowledge that helps shape future developmental interventions.[21]

A CULTURE OF REPLICATION TO FOSTER INNOVATION

Increasing the quality of knowledge and practices is a common goal in the crime prevention field. That being said, replications should not be avoided but become a normal part of the prevention culture. At present, the small proportion of replications relative to their importance to the field is an issue.[22] It is clear that replications are important, but they should also become more prevalent and valued.

Replicating an initiative is only feasible when detailed information on its design and implementation is available. This includes the underlying programme theory, the implementation methods used and data-collection methods for the evaluation.[23] One method of gathering this information and informing policy makers and practitioners are databases. Databases should include both effective and unsuccessful projects in order to share this information with other stakeholders in the field of crime prevention. A successful intervention might only be effective in a certain setting or for a particular target group. That is why every project and evaluation should share very detailed information on the key aspects to facilitate future replications as well as warning other project implementers of the pitfalls.[24]



Additionally, policy makers and funding entities should promote replications. Instead of merely providing funding for innovating initiatives, resources should equally be allocated to confirming existing knowledge and practices. One such example is the Dutch Research Council (NWO), a funding body that produces research on various focus areas. They are running a project that specifically focuses on replication studies and how they can be improved in the future.[25] Likewise, replication can also be used as a training technique for students as it teaches them the ins and outs of projects and their evaluations. Moreover, it might lead to early publications.[26]

To conclude, one initiative that effectively combines replication and innovation is Communities that Care (CtC). CtC aims to mobilise communities to prevent anti-social issues (e.g. crime or violence). They start by surveying young people to identify prominent risk- and protective factors as well as the (lack of) available community resources. Based on that survey, they then select and implement prevention initiatives that will address these factors and enhance the community's capabilities.[27] This initiative is a good example of combining replication (by using existing evidence-based initiatives) and innovation (through the inclusion of the specific needs of the community).

Endnotes

1 Friedrich Lösel, Evidence Comes by Replication, but Needs Differentiation: The Reproducibility Issue in Science and Its Relevance for Criminology, *Journal of Experimental Criminology* 14:3 (2018), 261.

2 William Alex Pridemore, Matthew C. Makel, and Jonathan A. Plucker, Replication in Criminology and the Social Sciences, *Annual Review ofCriminology* 1 (2018), 32.

3 Brian W. Head, Evidence-Based Policy-Making for Innovation, in: Stephen P. Osborne and Louise Brown (Eds.), *Handbook of Innovation in Public Services*, Cheltenham, UK: Edward Elgar Publishing, 2013, 1.

4 Ibid., 6-7. Risto Heiskala, Social Innovations: Structural and Power Perspectives, (2007), 54. Geoff Mulgan, The Process of Social Innovation, *Innovations: Technology, Governance, Globalization* 1 (2006), 146.

5 Mulgan, The Process of Social Innovation, 146.

6 Ibid., 151.

7 Head, Evidence-Based Policy-Making for Innovation, 8.

8 Ibid., 1.

9 Ibid., 6-7. Mulgan, The Process of Social Innovation, 156.

10 Mulgan, The Process of Social Innovation, 156.

11 Pridemore, Makel, and Plucker, Replication in Criminology and the Social Sciences, 21. Susan Mcneeley and Jessica J. Warner, Replication in Criminology: A Necessary Practice, *European Journal of Criminology* 12:5 (2015), 583. David P. Farrington et al., Advancing Knowledge About Replication in Criminology, *Journal of Experimental Criminology* 15:3 (2019), 382.

12 Pridemore, Makel, and Plucker, Replication in Criminology and the Social Sciences, 21. Farrington et al., Advancing Knowledge About Replication in Criminology, 383.

13 Jukka Savolainen and Matthew VanEseltine, Replication and Research Integrity in Criminology: Introduction to the Special Issue, *Journal of Contemporary Criminal Justice* 34:3 (2018), 3. Mcneeley and Warner, Replication in Criminology: A Necessary Practice, 582-3.

14 Pridemore, Makel, and Plucker, Replication in Criminology and the Social Sciences, 21. Mcneeley and Warner, Replication in Criminology: A Necessary Practice, 591.

15 Farrington et al., Advancing Knowledge About Replication in Criminology, 374. Pridemore, Makel, and Plucker, Replication in Criminology and the Social Sciences, 27.

16 Pridemore, Makel, and Plucker, Replication in Criminology and the Social Sciences, 20. Farrington et al., Advancing Knowledge About Replication in Criminology, 378.

17 Farrington et al., Advancing Knowledge About Replication in Criminology, 389. Pridemore, Makel, and Plucker, Replication in Criminology and the Social Sciences, 25.

18 Lösel, Evidence Comes by Replication, but Needs Differentiation: The Reproducibility Issue in Science and Its Relevance for Criminology, 263.

19 Pridemore, Makel, and Plucker, Replication in Criminology and the Social Sciences, 20-4. Farrington et al., Advancing Knowledge About Replication in Criminology, 374-7. Lösel, Evidence Comes by Replication, but Needs Differentiation: The Reproducibility Issue in Science and Its Relevance for Criminology, 259-62.

20 Pridemore, Makel, and Plucker, Replication in Criminology and the Social Sciences, 31.

21 Farrington et al., Advancing Knowledge About Replication in Criminology, 376.

22 Pridemore, Makel, and Plucker, Replication in Criminology and the Social Sciences, 21-6.

23 Ibid., 31-2.

24 Farrington et al., Advancing Knowledge About Replication in Criminology, 390.

25 Dutch Research Council, Replication in Action: Understanding the Replication Crisis, https://www.nwo.nl, 2021.

26 Pridemore, Makel, and Plucker, Replication in Criminology and the Social Sciences, 30-1.

27 Nick Axford et al., What Works in Europe? Developing a European Communities That Care Database of Effective Prevention Programmes, Devon: Dartington Social Research Unit, 2016, 7.

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