EHMA 2025
Taking action to improve health for all

Taking action to improve pharmacy professionals' health and well-being for patient safety

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Context

- According to the Guidelines and Principles for the Development of Health and Social Care Standards (1), an incident is defined as “any unintentional or unexpected event that could have, or did, result in harm to one or more patients/service users.”
- Incidents in healthcare are categorised based on their impact on patient safety as: (i) near misses, (ii) no-harm incidents, and (iii) harmful incidents with serious consequences for the patient/service user (1).
- The Second Victim Phenomenon – Albert Wu, 2000 (2) – refers to any distress experienced by a healthcare professional as a result of incidents and adverse treatment outcomes (3–5).
- An analysis of 18 studies involving 11,649 healthcare professionals shows that incidents most commonly lead to disturbing memories (81%), anxiety (76%), self-directed anger (75%), regret (72%), and sleep disturbances (35%) (4).
- An analysis of 14 studies involving 6,351 participants shows that healthcare professionals most commonly adopt coping strategies such as changing their attitude towards work (89%), more closely following guidelines (89%), increased attention to detail (89%), developing a concrete action plan (77%), and self-criticism (74%) (6).
- A 2024 study involving 149 healthcare professionals in Finland found that 36% of participants perceived institutional support as weak, while 10% considered leaving the profession or taking time off work (7).

Context

Action Final Report

ERNST, COST ACTION 19113

2020 - 2024

ERNST cost

Published papers

Highlighting our research findings

The European Researchers' Network Working on Second Victim (ERNST) Policy Statement on the Second Victim Phenomenon for Increasing Patient Safety

Psychological Safety Competency Training During the Clinical Internship From the Perspective of Health Care Trainee Mentors in 11 Pan-European Countries: Mixed Methods Observational Study

The second victim phenomenon: comprehensive support and systemic change in healthcare

Around the world

COST CA19113 Members

The initiative now includes 39 countries, mostly European, but also valuable others from around the world.

Countries:

- Albania
- Austria
- Belgium
- Bosnia & Herzegovina
- Croatia
- Czechia
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Iceland
- Ireland
- Israel
- Italy
- Lithuania
- Malta
- Netherlands
- North Macedonia
- Norway
- Poland
- Portugal
- Romania
- Serbia
- Slovakia
- Spain
- Sweden
- Switzerland
- Turkey
- Ukraine
- Argentina
- Brasil
- Canada
- Chile
- Colombia
- Ecuador
- EEUU
- Japan

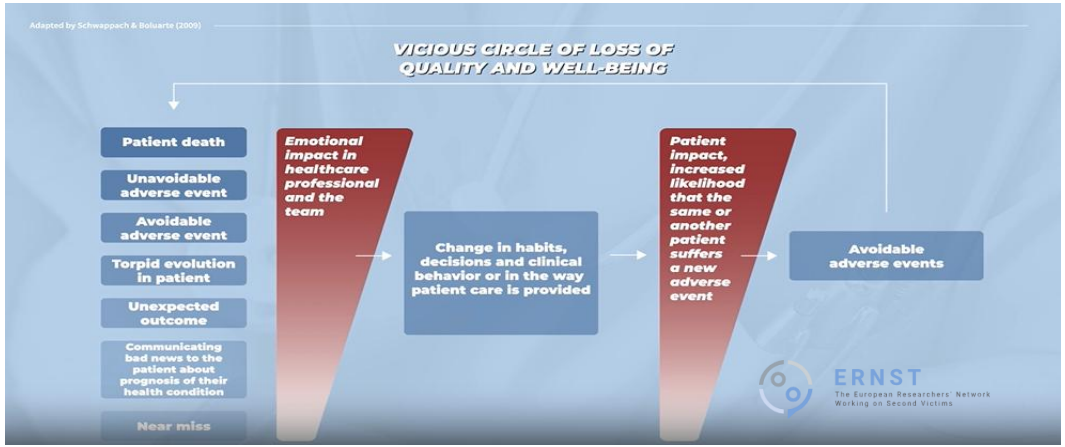
Action Sustainability

Working ahead together

ERNST continues with the COST Innovation Grant IG19113 RESCUE. This funding supports the development of innovative solutions for emergency response, specifically focusing on the European certification of interventions in support of second victims.

ERNST
The European Researchers' Network
Working on Second Victims

Context


Adapted by Schwappach & Boluarte (2009)
VICIOUS CIRCLE OF LOSS OF QUALITY AND WELL-BEING
Patient death
Unavoidable adverse event
Avoidable adverse event
Torpid evolution in patient
Unexpected outcome
Communicating bad news to the patient about prognosis of their health condition
Near miss
Emotional impact in healthcare professional and the team
Change in habits, decisions and clinical behavior or in the way patient care is provided
Patient impact, increased likelihood that the same or another patient suffers a new adverse event
Avoidable adverse events
ERNST
The European Researchers' Network Working on Second Victims


CHARTER
Health worker safety:
a priority for patient safety


Towards eliminating avoidable harm in health care


CARING FOR THOSE WHO CARE
Guide for the development and implementation of occupational health and safety programmes for health workers


The FIP Development Goals report 2021
Setting goals for the decade ahead
fip


Global Competency Framework (GbCF V2)

Context

- Support programmes have been designed as peer support initiatives (e.g. the KoHi Project – Collegial Help in Austria, the RISE – Resilience in Stressful Events programme, and the ForYou team in the United States), online programmes (e.g. MISE – Mitigating Impact in Second Victims in Spain), or leadership-led interventions within healthcare institutions (e.g. AE – Albert Einstein Hospital intervention for Second Victims, São Paulo, Brazil) (8–12).

- To evaluate support programmes in the United States, a questionnaire was developed to assess healthcare professionals' experiences as second victims and their preferred types of support (The Second Victim Experience and Support Tool, acronym SVEST) (13). It was later revised to include resilience (The Second Victim Experience and Support Tool – Revised, acronym SVEST-R) (14).

- The Second Victim Experience and Support Tool – Revised (SVEST-R) consists of 35 statements grouped into 9 domains: psychological distress (i), physical symptoms (ii), colleague support (iii), supervisor support (iv), institutional support (v), professional self-efficacy (vi), turnover intentions (vii), absenteeism (viii), and resilience (ix). Respondents are also presented with 7 statements regarding available support options in incident situations.

- The concept of resilience is defined in the *Serbian Dictionary of Recent Anglicisms* as "the capacity for successful adaptation in stressful situations and the ability to overcome life's difficulties" (15).

Objectives

I. To investigate incidents that compromise patient safety in public pharmacies: (i) to identify, describe, and categorise these incidents, (ii) to recognise the health consequences for pharmacists (mental and physical), the impact on their self-perception as professionals, and their future career, (iii) to assess the influence of support from management, colleagues, and the environment on pharmacists during such events, (iv) to examine and describe the consequences for patients and the impact on patient behaviour.

II. To adapt and validate the existing SVEST-R scale for assessing experiences and preferred support during incidents compromising patient safety in pharmacy practice, in the Serbian language, for the population of healthcare professionals in public pharmacies (SR-SVEST-R).

III. Based on the results of the SR-SVEST-R validation study, assess the experiences and support needs of healthcare professionals in public pharmacies through the following dimensions: (i) psychological distress, (ii) physical symptoms, (iii) colleague support, (iv) supervisor support, (v) institutional support, (vi) professional self-efficacy, (vii) absenteeism, (viii) intentions to change jobs, and (ix) resilience.

IV. To investigate and describe the educational needs of pharmacists for tailored content that may be beneficial in incidents occurring in pharmacy practice.

Methods

I

Qualitative Study: Nominal Group Technique

- ✓ Tool Development: Semi-structured guide with expert support, pre-tested with 5 pharmacists.
- ✓ Participants: 3 groups, 9 pharmacists each, ≥5 years experience, recent incident (snowball sampling).
- ✓ NG Sessions: Incident ranking (1-5), analysis of top 5 incidents.
- ✓ Data Analysis: Thematic analysis, safety and causal categories, Van Breda analysis.
- ✓ Demographic Analysis: SPSS (non-parametric).

II

Quantitative Study: SR-SVEST-R Validation

- ✓ Translation & Adaptation: Author consent, two translations, and back translation.
- ✓ Content Validity: 6-expert panel, I-CVI, S-CVI.
- ✓ Pilot Testing: 30 participants, internal consistency (Cronbach α).
- ✓ Validation: 350 healthcare professionals, 35 items, 9 domains.
- ✓ Analysis: Factor analysis, internal consistency, SPSS/AMOS.

III

Quantitative Study: Response Analysis & Profession Comparison

- ✓ Data Processing: SPSS 29.0 for demographics and questionnaire responses.
- ✓ Statistics: Mean, standard deviation, and agreement percentage (≥4).
- ✓ Profession Comparison: Chi-square test in SPSS for significant differences in incident responses between pharmacists vs. pharmacy technicians.

IV

Qualitative Study: Focus Groups

- ✓ Guide Development: Semi-structured guide was created and pre-tested with 5 pharmacists.
- ✓ Questionnaire: Developed to assess experiences and validated with 5 pharmacists.
- ✓ Participant Recruitment: Pharmacists with ≥1 year of experience and continuous education, via snowball sampling.
- ✓ Focus Group: 25 pharmacists, 3 groups, 90 minutes, moderated by researchers.
- ✓ Data Analysis: Transcription, coding, and thematic analysis with MAXQDA, statistical analysis in SPSS.

Results

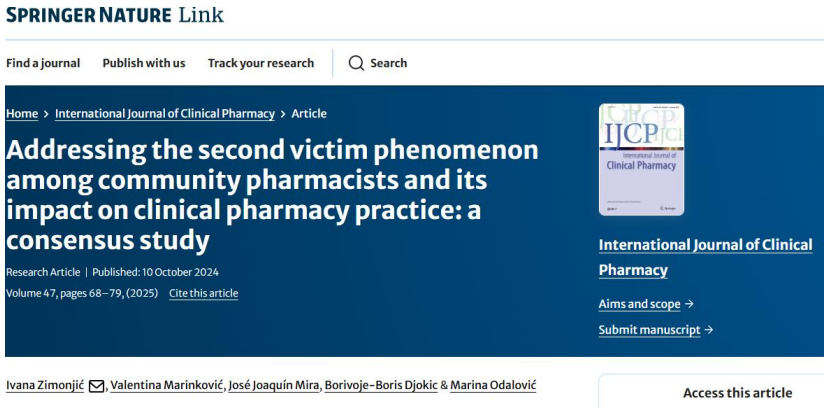
To investigate incidents that compromise patient safety in public pharmacies: (i) to identify, describe, and categorise these incidents, (ii) to recognise the health consequences for pharmacists (mental and physical), the impact on their self-perception as professionals, and their future career, (iii) to assess the influence of support from management, colleagues, and the environment on pharmacists during such events, (iv) to examine and describe the consequences for patients and the impact on patient behaviour.

✓"Patient-centric anxiety" (6.8) was the top mental health issue, followed by "Personal responsibility and resilience" and "Future concerns and career aspirations" (6.0 each).

✓The dominant support was "Colleague/Peer support" (5.3).

✓The most frequent patient safety incidents were "Inadequate pharmaceutical service" (8.0) and "Wrong drug dispensed" (7.8). Most errors (63%) were dispensing failures, primarily wrong drug dispensed (44.4%). Of these, 50% were near misses, 25.0% caused no harm, and 16.7% had serious consequences.

✓Field notes suggest contributing factors like inadequate supervision, crowding, and storage issues.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Addressing the second victim phenomenon among community pharmacists and its impact on clinical pharmacy practice: a consensus study

Research Article | Published: 10 October 2024

Volume 47, pages 68–79, (2025) Cite this article

International Journal of Clinical Pharmacy

Aims and scope →

Submit manuscript →

Ivana Zimonjić, Valentina Marinković, José Joaquín Mira, Borivoje-Boris Djokic & Marina Odalović

Access this article

Results

II

To adapt and validate the existing SVEST-R scale for assessing experiences and preferred support during incidents compromising patient safety in pharmacy practice, in the Serbian language, for the population of healthcare professionals in public pharmacies (SR-SVEST-R).

✓Content validity was confirmed with item scores from 0.8 to 1 and a mean scale score of 0.83. Factor analysis identified 9 factors and 30 items (Chi-square = 545.6, degrees of freedom = 366, $p < 0.001$).

✓The model fit was supported by a Root Mean Square Error of Approximation of 0.037, a Comparative Fit Index of 0.958, a Tucker-Lewis Index of 0.950, and a Standardised Root Mean Square Residual of 0.040.

✓Reliability analysis showed a Cronbach's alpha of 0.88, with factor values from 0.60 to 0.90.


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The second victim experience and support tool: a cross-cultural adaptation, validation and psychometric evaluation of the Serbian version for pharmacy professionals (SR-SVEST-R)

Research Article | Published: 13 February 2025

(2025) Cite this article

International Journal of Clinical Pharmacy

Aims and scope →

Submit manuscript →

Ivana Zimonjić, Valentina Marinković, José Joaquín Mira, Bojana Knežević, Borivoje-Boris Djokic, Nataša Bogavac-Stanojević & Marina Odalović

Access this article

Results

III

Based on the results of the SR-SVEST-R validation study, assess the experiences and support needs of healthcare professionals in public pharmacies through the following dimensions: (i) psychological distress, (ii) physical symptoms, (iii) colleague support, (iv) supervisor support, (v) institutional support, (vi) professional self-efficacy, (vii) absenteeism, (viii) intentions to change jobs, and (ix) resilience.

✓Among participants, 49.5% feared future events, 47.4% felt exhausted, 22.6% considered quitting, 72.6% valued peer support, and 28.9% improved work quality.

✓Physical distress was agreed upon by 24.8% (Mean = 2.42, SD = 1.40). Colleague support showed 20.5% agreement (Mean = 2.17, SD = 1.35).

✓Professional self-efficacy and turnover intentions had 14.8% and 15.5% agreement levels, respectively (Means = 2.13 and 2.0, SDs = 1.30 for both).

✓The most desirable support was having a respected peer to discuss the event, with 72.6% of participants finding it desirable and a mean score of 4.17 (SD = 1.25).


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Results

IV

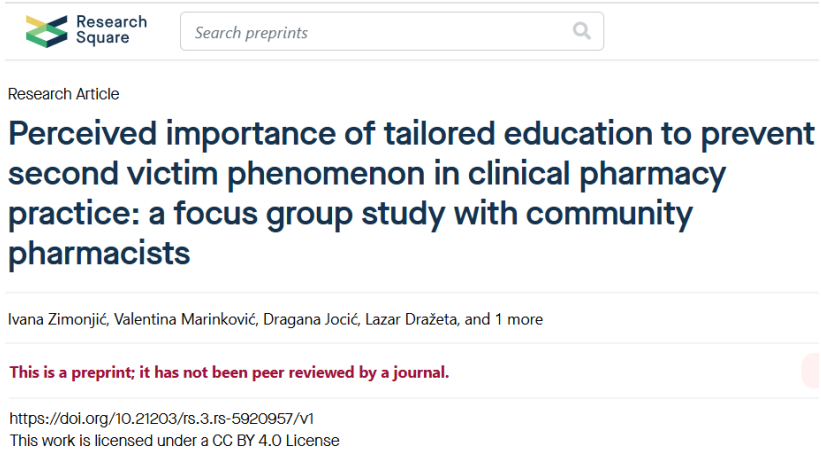
To investigate and describe the educational needs of pharmacists for tailored content that may be beneficial in incidents occurring in pharmacy practice.

✓Participants perceived tailored education as important for improving error response, empowering individuals and the profession, and enhancing pharmaceutical care.

✓Thematic analysis identified four themes: (i) impacts of tailored programmes, (ii) topics for professional development, (iii) topics for undergraduate curricula, and (iv) programme design and delivery.

✓Key areas included soft skills, risk and stress management. Undergraduate education should strengthen communication, motivation, and career development.

✓Preferred methods were workshops and blended learning. Of 25 participants, 20 (80%) attended support programmes; 20 (80%) reported improved competence, and 20 (80%) would recommend them to colleagues.


Research Square

Search preprints

Research Article

Perceived importance of tailored education to prevent second victim phenomenon in clinical pharmacy practice: a focus group study with community pharmacists

Ivana Zimonjić, Valentina Marinković, Dragana Jocić, Lazar Dražeta, and 1 more

This is a preprint; it has not been peer reviewed by a journal.

https://doi.org/10.21203/rs.3.rs-5920957/v1
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Opportunities for improvement in pharmacy practice

Significance for Practice:

- Support for pharmacists in managing stress and professional challenges.
- Strengthening resilience and preventing burnout.
- Improving patient safety through workforce empowerment.
- Ensuring the sustainability of public pharmacy operations during potential emergencies.
- Reducing staff turnover and addressing workforce shortages in public pharmacies.

Implementation:

- Tailored education programmes for pharmacists.
- Tailored support programmes for pharmacists and technicians working in public pharmacies.

References

1. International Society for Quality in Health Care External Evaluation Association. Guidelines and principles for the development of health and social care standards 2022. Available from: https://ieea.ch/resource/guidelines-and-principles-for-the-development-of-health-and-social-care-standards-5th-edition-v1-1/. Accessed 08.05.2025.
2. Wu AW. Medical error: the second victim. West J Med. 2000;172(6):358-9.
3. Torijano Casalengua ML, Maderuelo-Fernández JA, Astier Peña MP, Añel Rodríguez R. [Health worker safety as an essential condition for patient safety]. Aten Primaria. 2021;53 (1):102216.
4. Busch IM, Moretti F, Purgato M, Barbui C, Wu AW, Rimondini M. Psychological and Psychosomatic Symptoms of Second Victims of Adverse Events: a Systematic Review and Meta-Analysis. J Patient Saf. 2020;16(2):e61-e74.
5. Mallea Salazar F, Ibaceta Reinoso I, Vejar Reyes C. [Second victims: Perceived support quality and its relationship with the consequences of the adverse event]. J Healthc Qual Res. 2021;37(2):117-124.
6. Busch IM, Moretti F, Purgato M, Barbui C, Wu AW, Rimondini M. Dealing With Adverse Events: A Meta-analysis on Second Victims' Coping Strategies. J Patient Saf. 2020;16(2):e51-e60.
7. Mahat S, Lehmusto H, Rafferty AM, Vehviläinen-Julkunen K, Mikkonen S, Härkänen M. Impact of second victim distress on healthcare professionals' intent to leave, absenteeism and resilience: A mediation model of organizational support. J Adv Nurs. 2024. doi: 10.1111/jan.16291.
8. Krzan KD, Merandi J, Morvay S, Mirtallo J. Implementation of a "second victim" program in a pediatric hospital. Am J Health Syst Pharm. 2015;72(7):563-7.
9. Pratt S, Kenney L, Scott SD, Wu AW. How to develop a second victim support program: a toolkit for health care organisations. Jt Comm J Qual Patient Saf. 2012;38(5):235-40, 193.
10. Edrees H, Connors C, Paine L, Norvell M, Taylor H, Wu AW. Implementing the RISE second victim support programme at the Johns Hopkins Hospital: a case study. BMJ Open. 2016;6(9):e011708.

References

11. Edrees HH, Morlock L, Wu AW. Do Hospitals Support Second Victims? Collective Insights From Patient Safety Leaders in Maryland. Jt Comm J Qual Patient Saf. 2017;43(9):471-83.
12. White AA, Brock DM, McCotter PI, Hofeldt R, Edrees HH, Wu AW, et al. Risk managers' descriptions of programs to support second victims after adverse events. J Healthc Risk Manag. 2015;34(4):30-40.
13. Burlison JD, Scott SD, Browne EK, Thompson SG, Hoffman JM. The Second Victim Experience and Support Tool: Validation of an Organizational Resource for Assessing Second Victim Effects and the Quality of Support Resources. J Patient Saf. 2017;13(2):93-102.
14. Winning AM, Merandi J, Rausch JR, Liao N, Hoffman JM, Burlison JD, et al. Validation of the Second Victim Experience and Support Tool-Revised in the Neonatal Intensive Care Unit. J Patient Saf. 2021;17(8):531-40.
15. Prćić T DJ, Milić MM, Ajdžanović M, Filipović Kovačević S, Panić Kavgić O, Stepanov S. Srpski rečnik novijih anglicizama. 1. elektronsko izd. Novi Sad: Filozofski fakultet; 2021. Available from: https://digitalna.ff.uns.ac.rs/sadrzaj/2021/978-86-6065-636-2. Accessed 08.05.2025.
16. McMillan SS, King M, Tully MP. How to use the nominal group and Delphi techniques. Int J Clin Pharm. 2016;38(3):655-62.
17. Larsen HG AP. The theoretical framework in phenomenological research: development and application. 1st ed. New York: Routledge. 2022. eBook ISBN: 9781003084259.
18. Goodman LA. Snowball Sampling. Annals of Mathematical Statistics. 1961;32:148-70.
19. Bonett DG. Sample Size Requirements for Testing and Estimating Coefficient Alpha. Journal of Educational and Behavioral Statistics. 2002;27(4):335-40.
20. Suen LJ, Huang HM, Lee HH. A comparison of convenience sampling and purposive sampling. Hu Li Za Zhi. 2014;61(3):105-11.
21. Huston SA, Hobson EH. Using focus groups to inform pharmacy research. Res Social Adm Pharm. 2008;4(3):186-205.

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"Nulla dies sine linea"

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Taking action to improve health for all

Raphaël Kermaïdic PPTX missing

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Taking action to improve health for all

All that glitters isn't gold

Examining how and why organizations collaborate to address wicked problems in healthcare

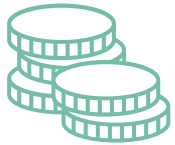
Dr. Robin Peeters

Wicked problems/Grand challenges

Increasing demand for care

Workforce shortages

Growing waiting-lists



Escalating costs for care

Hefner & Nembhard (2021)

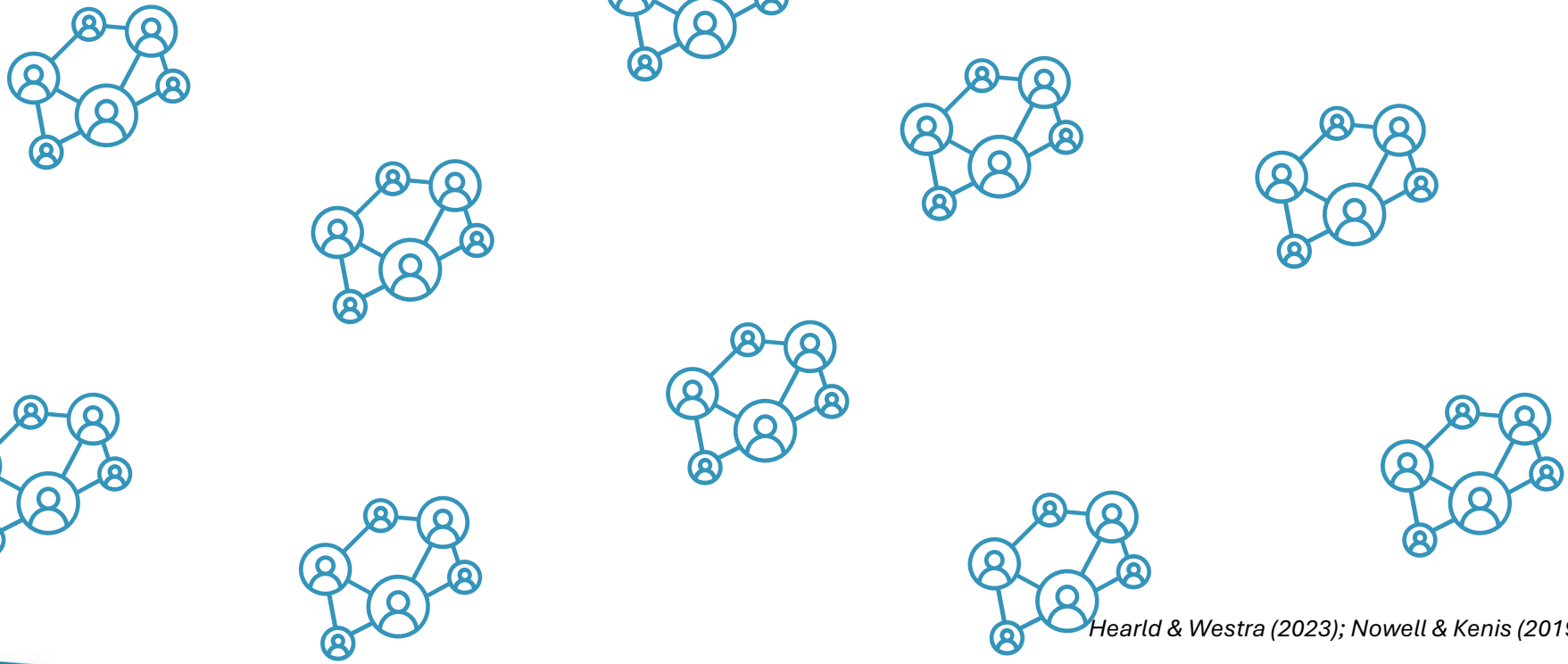
The solution:

Purpose-oriented networks:

Three or more autonomous organizations that work together deliberately to solve challenges

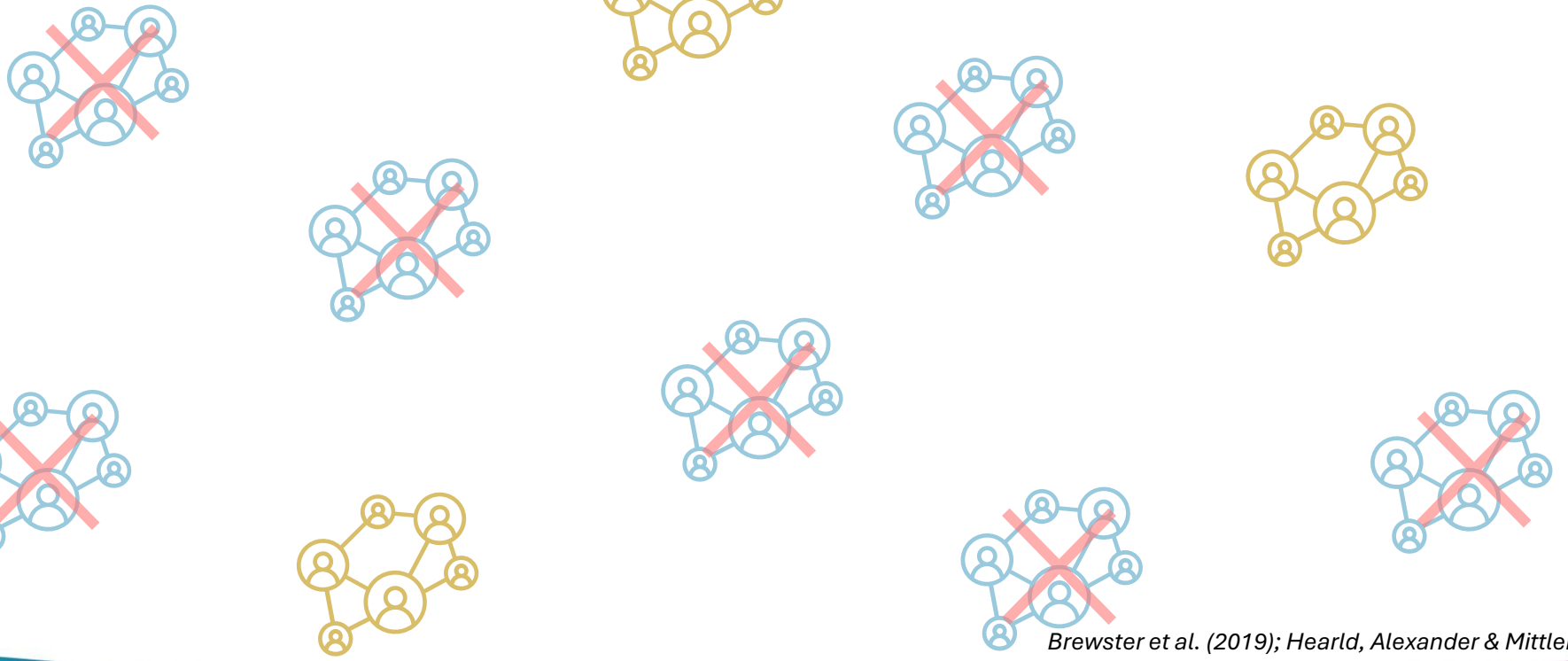
Based on Nowell & Milward (2022)

The solution:



Hearld & Westra (2023); Nowell & Kenis (2019)

The solution?



Brewster et al. (2019); Hearld, Alexander & Mittler (2012); Perkins et al. (2019) Prashant & Harbir (2009);

Aims

1. What do we already know about determinants of network effectiveness?
2. How can we systematically measure these determinants?
3. How do certain determinants influence network effectiveness in practice?

Methods

1

2

3

Two elaborate (systematic) literature reviews

- Systematic searches in Pubmed, CINAHL, and PsycInfo
- Expert consultation

Methods

1

2

3

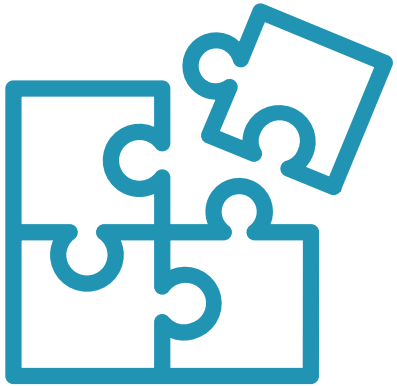
Longitudinal, in-depth case study:

- Regional, cross-sectoral network
- 5 years
- 43 interviews
- 46 hours of observations
- 2.110 pages of documents

Results and key messages of the dissertation

Networks are very complex – organize networks in a conscious and competent way

- → 283 determinants – 30 themes
- → Context, structure, processes
- → Leadership transitions can be very impactful – organize a network to decrease this impact



Results and key messages of the dissertation

And study them using methods that fit this complexity

- → Unvalidated scales, single-use questionnaires
- → Even though many are available
- → Ability to learn across contexts

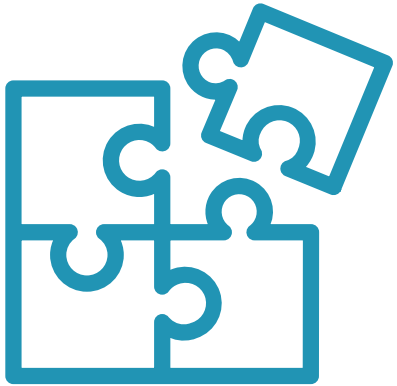
Results and key messages of the dissertation

Aim at understanding (determinants of) goal attainment instead of only perceived effectiveness

- → Studies mostly measure perceived outcome measures
- → Participating in networks is institutionalized and perhaps an institutional myth
- → Role for policy to encourage effective collaboration

Results and key messages of the dissertation

Aim at understanding (determinants of) goal attainment instead of only perceived effectiveness



- → Studies mostly measure perceived outcome measures
- → Participating in networks is institutionalized and perhaps an institutional myth
- → Role for policy to encourage effective collaboration and monitoring/evaluation

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Questions?

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