Engell, T., Varsi, C., Graverholt, B. et al. Launch of the Norwegian Network for Implementation Research (NIMP): Proceedings from the First Annual Conference. Glob Implement Res Appl 1, 223– 232 (2021). <u>https://doi.org/10.1007/s43477-021-00027-y</u>

This version of the article has been accepted for publication, after peer review (when applicable) and is subject to Springer Nature's AM terms of use, but is not the Version of Record and does not reflect post-acceptance improvements, or any corrections. The Version of Record is available online at: https://doi.org/10.1007/s43477-021-00027-y

#### Abstract

**Background:** Implementation research is growing in Norway, and the importance of implementation science for health and welfare improvements is gaining awareness across sectors. The Norwegian health and welfare systems have unique features that influence implementation research and practice, and context-specific implementation research is needed to solve Norwegian implementation issues. Implementation science has been fragmented, with limited connections between implementation researchers, disseminators, policymakers, and practitioners. Calls for a national network for implementation research echoed for several years, and in 2020 the Norwegian Network for Implementation Research (NIMP) was founded, and the first annual NIMP conference was held. With implementation science proliferating globally, similar efforts may be on the horizon in other countries.

**Method:** This paper describes the rationale and approach for developing NIMP, presents proceedings from the 2020 NIMP conference, and discusses the role of a national network in mobilizing implementation science communities and advancing an implementation science agenda nationally.

**Results:** NIMP was developed as an independent organization with six board members elected at a general assembly. NIMPs aims are to (1) raise awareness about implementation science in Norway, (2) promote sharing and exchange of knowledge from implementation research in Norway, and (3) facilitate implementation collaboration within Norway and internationally. One hundred forty-four implementation researchers, practitioners, policymakers, and students from across Norway attended the NIMP conference. There were 13 presentations of implementation research from different settings within health care, welfare services, and education. Themes included implementation strategies, barriers and facilitators, implementation theories and frameworks, and evaluation of implementation outcomes.

1

**Discussions:** The presentations showcased at the NIMP conference substantiated the need to connect and mobilize the implementation science community in Norway. Implementation issues are large and numerous, and more contemporary implementation research questions and designs may be required to solve them. NIMP needs to inform stakeholders in policy about the need for dedicated implementation research to improve our health and welfare systems. Critical implementation issues may require ambitious investments in implementation research. Our approach to developing a national implementation network may be of interest to aspiring networks in other countries.

*Keywords:* Research network, conference proceedings, implementation science, Norway, implementation issues, NIMP

# Launch of the Norwegian Network for Implementation Research (NIMP): Proceedings from the First Annual Conference

Organized research networks structure and facilitate ties among individuals with mutual interests in a scientific discipline or topic (Nohria & Eccles, 2000). The purpose of research networks can be knowledge dissemination and exchange, facilitation of academic partnerships and research collaboration, the promotion of research and funding agendas, and public and private interests. The utility of research networks tends to increase with specialization within a discipline (Gazni et al., 2012). As pockets of specialized knowledge form within a field of research (i.e., a science), the need for sharing knowledge and resources across the science becomes more prominent.

Implementation science appears to be gradually transitioning from its infancy to toddler years (Albers et al., 2020), and specialization is rapidly increasing regarding, for instance, specific aspects of implementation processes, theoretical orientations, study contexts, and schools of thought. These developments can be seen as positive signs of progression and maturation. The increased specialization also can contribute to disciplinary fragmentation. The social and transdisciplinary nature of implementation science makes a degree of fragmentation inevitable, healthy, and useful for contextualizing knowledge. However, fragmentation taken too far may hamper scientific progress (Balietti et al., 2015), lead to research waste, and needlessly complicate the knowledge base for decision makers in policy and practice (Albers et al., 2020). Research networks may help purposefully connect implementation researchers, policymakers, and practitioners in unified efforts to promote, progress, and utilize implementation science. This article describes the rationale and development of the Norwegian Network for Implementation Research ("Nasjonalt Nettverk for Implementeringsforskning [NIMP]), presents proceedings from the first annual NIMP conference in Norway, and discusses how formalizing research networks can promote implementation science agendas nationally and across borders. Key terms and definitions used in the article are presented in Table 1.

### Table 1 goes here

#### **Implementation Networks in Europe**

As depicted in Table 2, national and cross-national implementation networks have emerged across Europe in the last decade (Goense et al, 2020). These networks host educational activities, share information and resources, connect members, provide implementation training opportunities, and host or co-host conferences such as the Nordic Implementation Conference, The European Implementation Event, and the Global Implementation Conference (Goense et al., 2020). The Nordic Implementation Interest Group is not a research network per se but an email distribution list that shares implementation content and promotes implementation networks and conferences.

Table 2 goes here

#### The Need for a Norwegian Implementation Network

As knowledge from implementation science has progressed, the importance of contextual specificity has been substantiated (Nilsen & Bernhadsson, 2019; Lau et al., 2015). That is, knowledge about implementation established through research in one society, system, or culture will not necessarily be evident in another. Some implementation mechanisms may be generic across different contexts and cultures, and some contextually specific determinants may require differentiation. The Norwegian health and welfare systems, cultures, and geography, have features that may limit the generalizability of research from other contexts. Norway is a small country in terms of population (5.4 million), and population density is 14 per km<sup>2</sup> in our vast and outstretched nation. The Norwegian health and welfare system is closely associated with the *Nordic model* (Christiansen, 2006). This is founded upon an

egalitarian philosophy with a comprehensive welfare state, collective bargaining, and free market capitalism. Norway's universal health coverage is primarily funded by direct and indirect taxation, shared by employers and employees. By and large, out-of-pocket contributions are capped, currently at 2,460 NOK (287 USD) annually. The Norwegian healthcare system is organized as a semi-decentralized model, where the municipalities are responsible for primary care, long-term care, and social services, and the state is responsible for specialist healthcare. Norway has 356 municipalities (avg. population of 15,000), of which almost half of them (n= 174) have less than 5,000 inhabitants. This model provides many small municipalities with large responsibilities in ensuring that their services are of sufficient quality (i.e., safe, effective, caring, and equal). To sustainably deliver quality services, these municipalities need locally distributed implementation competencies and external implementation support to implement evidence-informed systems and interventions effectively (Ruud et al., 2021).

Implementation research in Norway dates back to the early 2000s (Forsetlund & Bjørndal, 2001; Flottorp & Oxman, 2003), and these early studies focused on barriers and facilitators for the use of evidence-based information and guidelines in health care. The last decade has seen a marked increase in awareness of implementation issues in Norwegian health and welfare systems (e.g., health care, mental health, education, child welfare), and attention to implementation as a science is emerging. Research communities or groups conducting implementation research have formed around universities and other educational institutions and research and quality improvement organizations across the country. These research groups do implementation research in healthcare (e.g., Graverholt et al., 2021; Diehl, 2016), mental and behavioral health (e.g., Egeland et al., 2017; Ogden et al., 2018), digital health technologies (e.g., Varsi et al., 2015; Dugstad et al., 2019; Paulsen et al., 2020), education (e.g., Ertesvåg et al., 2010), and child welfare services (e.g., Engell et al., 2018).

The Research Council of Norway (RCN) invests above 1 billion US dollars in research and innovation annually on behalf of the Norwegian Government. In 2014, they began to emphasize implementation in their funding programs for health and welfare services research. Grant applications are required to address implementation of the study and results, but evidence-informed implementation is not a requirement. There are no funding programs in Norway dedicated to implementation research, and few funding programs in RCN have implementation questions as primary aims. The few mentions of implementation research in program calls are as secondary additions to intervention and evaluation research (e.g., BetterHealth, RCN 2016; Children&Youth21, RCN 2021; Health&Care21, RCN 2014; HealthWell, RCN 2017). As a result, implementation research is scarce compared to other research areas in health and welfare. The majority of implementation research funded by NRC are hybrid studies or process evaluations (i.e., studies of implementation issues alongside the evaluation of interventions, Curran et al., 2012).

Knowledge from implementation science has limited uptake in Norwegian policy, academia, and service systems. This challenge is not unique to Norwegian contexts. Similar to the research-to-practice gap implementation science was meant to alleviate, implementation science appears to have recreated a paradoxical research-to-practice gap of its own (Westerlund et al., 2019; Lyon et al., 2020). There are encouraging exceptions in Norway, such as the aforementioned research communities and groups. Some universities have also begun to incorporate implementation aspects in their masters and Ph.D. level courses. However, the exceptions are few and fragmented. Despite its potential to improve care and welfare, knowledge from implementation science largely remains within some academic environments and research groups doing implementation research. Implementation researchers have a responsibility to proactively inform government bodies, funding institutions, and services about implications from scientific progress. A collective recognized voice, as a formalized network, may have a better chance of doing so than individuals alone.

Purposefully connecting implementation researchers, policymakers, and practitioners can enable knowledge exchange and collaboration to improve the understanding of implementation in Norwegian contexts. Strategic and targeted dissemination and lobbying are likely needed to facilitate the conditions for implementation research and practice to enhance Norwegian health and welfare systems and services. A national network can contribute to connecting Norwegian implementation researchers with international communities with mutual interests. Our aims with this launch and proceedings-article are threefold:

- 1. Share rationale and approach for developing a national research network
- 2. Showcase contemporary implementation research from Norway
- 3. Invite current or new implementation research and practice networks to connect

### Development of the Norwegian Network for Implementation Research (NIMP)

In March 2019, a seminar was hosted by a group of Norwegian implementation researchers to discuss the need and interest for establishing a national network for implementation research. An open invitation brought together 51 researchers and practitioners from across the country to the seminar. Presentations showcased some of the implementation research conducted in Norway. Group activities and discussions were facilitated to explore questions such as the need for an implementation network, the network's aims, target members, key activities and achievements, organizational structure, and resources. Feedback from the participants highlighted perceptions of fragmentation and interest in connecting. A working group of six implementation researchers and practitioners volunteered to lay the foundations for the establishment of a network. Feedback collected from the seminar informed the development of a foundational document and network statutes. In November 2020, the working group launched the Norwegian Network for Implementation research (NIMP) together with a national digital conference with 144 participants from across the country. The network's first general assembly and board election were held. The foundational document and suggested statutes included a rationale for the network and suggestions for aims, scope, organization, general assemblies, elections, and a progress plan for initial years. These documents were processed and approved. NIMP was founded, and the board for the two initial years was elected. The foundational document and network statutes are translated to English and available as supplementary file 1.

#### **Network Aims**

The Norwegian Network for Implementation Research (NIMP) aims to connect researchers, policymakers, practitioners, and others interested in implementation science and share knowledge from implementation research among its members. NIMP has three objectives:

(1) Raise awareness about implementation science in Norway. NIMP aims to raise awareness among policymakers, system and organizational leaders, researchers, and practitioners about the need for Norwegian implementation research and practice.

(2) Promote sharing and exchange of knowledge from implementation research in Norway. NIMP aims to share information, knowledge, and resources from implementation research and activities in Norway.

(3) Facilitate implementation collaboration within Norway and internationally. NIMP aims to provide forums for people and institutions to connect and form collaborations.

#### **Organization and Target Audience**

NIMP is an independent organization with a board elected by members through biannual democratic elections. The board consists of a chair, a deputy chair, a chief of finances, and up to three board members. The statutes encourage elections to strive for the board composition to represent diversity regarding gender, ethnicity, geography, professional background, sector, and role. An annual general assembly (GA) will process accounts, budgets, propositions from members and changes in statutes. The GA will also determine member fees and carry out elections or appoint an election committee. NIMP is for anyone interested in implementation research. In the initial years, audiences for targeted dissemination will include practitioners, policymakers, researchers, and students across the health and welfare sectors. Broader outreach may be pursued long-term.

### **Strategy for Initial Years**

In the initial years of NIMP, the board will ensure formalities and infrastructure to establish NIMP as an organization that can grow and evolve. NIMP plans to host an annual event focused on implementation research in the Norwegian context and develop strategies for outreach and recruitment of members. The board plans to establish online platforms for its members to connect, exchange knowledge and resources, and engage in implementation relevant discussions across disciplines and settings. The board also plans to do targeted dissemination of scientific publications and implementation resources relevant to its members through these platforms. The board will work towards Norwegian funding institutions and government bodies to launch NIMP as a relevant consultation body on matters of implementation. The board also will collaborate with international implementation networks and host network meetings at international implementation conferences such as the Global Implementation Conference and the European Implementation Event.

### The First Annual NIMP Conference

The first NIMP conference was hosted digitally on November 23<sup>rd,</sup> 2020. The aim was to gather researchers, policymakers, practitioners, and others interested in implementation, to

present contemporary Norwegian implementation research projects conducted in different settings within the health and welfare sectors. Abstracts were sought from implementation research in any sector.

The organizing committee consisted of eight persons representing four research institutions or universities, and all worked within implementation research. Two of the organizers reviewed all the incoming abstracts (n = 16). Since the aim was to showcase the breadth of implementation research projects in Norway, the committee decided to give all the first authors (n = 13) the opportunity to present their research. Two authors withdrew, and one author submitted two abstracts, whereas one was accepted.

Of the 144 attendees at the conference, 109 were women. As depicted in Table 3, 52 registered as coordinators or consultants, 36 as researchers, 18 as directors or managers, and 18 as PhD students or postdoctoral fellows. Fifty-three reported their affiliation was to research and quality improvement organizations, 34 to academia, 23 to hospitals, and 18 to policy.

### Table 3 goes here

#### **Summary of Presentations**

The conference included 13 presentations of research and quality improvement projects studying aspects of implementation. One presenter refrained from being included in this article, so the following summary includes 12 presentations. The summary is based on data from the submitted abstracts, and the PowerPoint slides used in the talks. Abstracts are available in supplementary file 2. Almost all talks presented implementation research, while one talk presented implementation aspects related to a randomized controlled trial testing a psychosocial intervention (#10 in table 4). Table 4 depicts the name of presenters and title of presentations.

#### Table 4 goes here

#### Themes

Five talks presented overviews of implementation projects, one complete with implementation and client outcomes [2] and four ongoing [3,4,8,11]. One talk introduced organizational factors important for implementation [5], one presented barriers and facilitators for implementation [7], two combined presenting barriers and implementation strategies [9,10], and one reported implementation strategies and outcomes [12]. One talk represented an implementation framework used [6], and one talk presented barriers and facilitators, implementation strategies, and implementation outcomes [1].

#### Context

Four talks represented implementation projects conducted in child or youth mental health and welfare settings [1,2,8,12], two in adult mental health care [3,9], two were conducted in school settings [6,7], and four in health care [4,5,10,11]. Nine [1-8, 12] were conducted in municipal-led primary care and welfare settings, and three [9-11] in state-led specialized/hospital settings.

#### Theories and Frameworks.

Seven talks presented theories or frameworks that were used in the implementation projects, including common elements theory (Engell et al., 2020 [1]), implementation outcomes (Proctor et al., 2011; [2]), Active Implementation Framework (Fixsen & Blase, 2020; [2,12]), Integrated Knowledge Translation (Jull et al., 2017 [1,4,5]), Multi-level Quality Implementation Framework (Domotrovich et al., 2008 [7]). Two talks presented using the Medical Research Council guidance for process evaluation of complex interventions (Moore et al., 2015 [4,5]), and one used the implementation and process evaluation for interventions in education (Humprey 2016 [6]),

#### Study Designs and Methods

Of the talks presenting studies, the study designs used were quantitative [2,4,10,12], qualitative [5,7,9], and mixed methods [1, 6]. One study was explicitly labeled a hybrid design type 2 (Curran et al., 2012 [1]), and one study as a hybrid design type 3 [8].

#### Discussion

There is increasing awareness of implementation science in several European countries, including Norway. Since the first implementation research articles in the early 2000s, several Norwegian research groups and universities have begun incorporating implementation aspects in their research and teaching courses. However, the environments are still small and fragmented, and the prioritization of implementation science does not reflect the magnitude of its importance for improving Norwegian health and welfare services. With the growth in awareness of implementation science, critical implementation issues and limitations have crystallized across Norwegian health and welfare sectors. The first annual NIMP conference showcased examples of research working to understand and solve such issues. However, the conference also substantiated the need to mobilize a larger and more ambitious implementation research agenda in Norway if we are to overcome important implementation challenges.

#### Health and Welfare Challenges in Norway to Solve with Implementation Science

A report from The Norwegian Institute of Public Health (Aase et al., 2020) notes that empirically proven interventions to prevent youth delinquency and future criminality do not assert their potential societal impact because of failure in implementation. A recent evaluation of a heavily critiqued nationwide implementation of standardized care pathways for mental health and substance abuse services pointed to an underestimation of the implementation process, poor implementation strategies, lack of usability in measurement and registration systems, and limited alignment with contextual needs (Ådnanes et al., 2020) – all of which are key elements implementation science aims to address. Moreover, in Norwegian child welfare services, annual statistics find that less than 4% of interventions and counseling provided to children and families are evidence-based (Statistics Norway, 2020), while evaluations clearly show there are needs for quality improvements. For instance, a study of 400 children and youth in Norwegian child welfare institutions found that 76% qualified for one or more mental health diagnoses and reported substantially lower quality of life than peers (Kayed et al., 2014). Only 38% received mental health services, emphasizing the need for implementation of interventions. However, even child welfare practitioners themselves are prone to health issues because of demanding and burdensome work environments (e.g., stress, burnout, and secondary trauma; Baugerud et al., 2017), making implementation of new interventions and demands ethically questionable unless implementation climate and capacity is significantly improved (Engell, 2021).

Similar to other countries, the implementation issues in Norway are complex and likely have to do with both *how* we implement (e.g., insufficient funding and ineffective implementation strategies; Kirchner et al., 2020), *where* we implement (e.g., lack of implementation capacity and readiness in services; Scaccia et al., 2020), and *what* we implement (e.g., the evidence-based interventions themselves lack implementability and contextual fit; Lyon et al., 2020). These issues also can be connected and vary across contexts. Even though implementation knowledge has progressed in the last decade (Albers et al., 2020; Nilsen & Birken, 2020), evidence about solving such issues is still limited, both internationally and in Norway. Despite the implementation failures and scarcity of evidence about effective implementation in Norway, the funding for new health and welfare interventions (with a substantial likelihood of failing in implementation) exceeds the funding for implementation research by a landslide. This paradox prevents progress in health and welfare services and reinforces research that is unlikely to have societal impact - what some label research waste (Ivers & Grimshaw, 2016). The magnitude of funding for implementation research arguably should be comparable to the investments in research on health and welfare interventions, seeing as discouraging amounts of intervention research do not create public health impacts because of implementation issues (Aase et al., 2020; Girlanda et al., 2017; Glasgow et al., 2012; Hall et al., 2016; Lau et al., 2016; Ruud, 2015; Stirman et al., 2012).

#### The Need for Context-Specific Implementation Knowledge

As contextual differences seem to matter for implementation mechanisms (Jacobs et al., 2014; Lewis et al., 2020), knowledge about both generic and context-specific implementation mechanisms in the Norwegian context are central to progress. Norway has a comprehensive welfare state with peculiarities that likely have implications for implementation. For instance, the low-capped universal health coverage limits the influence that insurance regulations can impose on implementation through reimbursement practices, as well as the market for privately branded evidence-based programs (EBPs). None of the many presentations of implementation barriers and facilitators at the NIMP conference mentioned financial structures as either-or. How does that influence the way we incentivize implementation in public services and among practitioners? Or how we fund and facilitate sustainment of programs requiring comprehensive ongoing implementation infrastructure?

Also, the liberal Norwegian culture with a strong emphasis on individual autonomy may have implications for implementation leadership and pose barriers for standardizing evidence-informed practices. How do we facilitate implementation leadership behavior among leaders practicing highly trust-based leadership styles? And how do we reconcile ethical virtues of freedom, autonomy, and emphasis on the unique individual with standardization based on what works for population averages? One talk at the NIMP conference [1] presented results from an attempt at such reconcilement but concluded with the need for more context-specific research with Norwegian practitioners.

Further, the largely de-centralized Norwegian service system makes many small municipalities responsible for implementation of evidence-informed practices, government policies, and other quality improvements. Intermediary organizations are unable to support all municipalities with implementation, and it seems unlikely that we can establish sufficient capacity and expertise without significant system developments. Two presentations at the NIMP conference [2, 12] from a government-funded intermediary organization showcased 20 years of successful implementation of EBPs in child welfare services. The implementation infrastructure and resources required for their success do not seem feasible at a national scale (as indicated by the below 4% reach of EBPs in child welfare services). However, the municipalities need their expertise to succeed with implementation of such EBPs. How do we de-centralize implementation expertise when curriculums in the education of health and welfare practitioners and leaders have little focus on implementation? How do we facilitate implementation support when best practice implementation strategies and competencies struggle to break through into cultures in municipalities and intermediary organizations? Or how do we reform systems to better support implementation when government policies limitedly reflect available knowledge about implementation? The examples showcased at the NIMP conference and discussed here are not unique for Norway or other Nordic countries; however, they have important context specific features which substantiate the need for context specific implementation research.

### The Need for Dedicated Implementation Research

In Norway, both government bodies and academic communities primarily view implementation research as something done in addition to intervention or quality improvement research and not as a scientific endeavor in itself. Hybrid interventionimplementation studies are indeed valuable strains of scientific inquiry (Curran et al., 2012); however, implementation science stretches beyond co-studying the process of implementing ready-made interventions (Bertram et al., 2021; Nilsen & Birken, 2020). For instance, implementation science has implications for public health policies and decision making in complex systems (Ornstein et al., 2020; Nilsen & Cairney, 2020), how health and service systems are organized (Braithwaite et al., 2018; Evans et al., 2013), how services and interventions are designed (Lyon et al., 2020), how to promote equity in research and service systems (Baumann & Cabassa, 2020), and how to predict the value of public health initiatives (Eisman et al., 2020). The multi-faceted and complex nature of implementation as a scientific discipline warrants dedicated and earmarked research programs, institutions, and funding streams. Such scientific inquiry can help find answers to the questions raised in the sections above.

#### The Role of National Implementation Networks

Without generating more context-specific knowledge about effective implementation, we will keep using taxpayer money on research that is unlikely to benefit the people who pay for it. The billions of dollars considered wasted annually in research is a familiar issue within the implementation science community (Chalmers & Glaziou, 2009; Ivers & Grimshaw, 2016); however, its reach outside the community appears limited in Norway. Implementation researchers need to inform government institutions, funding bodies, and the public about these issues and scientific progress towards solving them. Such efforts can have more weight from a nationwide formalized network than from fragmented research groups or individuals alone. By connecting with other networks globally, we also can work towards mutually beneficial synergies across borders. Research networks may function as 'bridging factors' (LengnickHall et al., 2021) that help interconnect implementation scholars within and across borders, as well as connect implementation science to practice, policy and other disciplines.

#### **Reflections on the First Annual NIMP Conference**

Presentations at the first NIMP conference included typical implementation themes, including organizational determinants and implementation strategies, implementation frameworks, and implementation outcomes in evaluations of interventions. Presentations were from diverse disciplines such as health and mental health care, education, and welfare settings. Several presentations focused on barriers and facilitators for implementing new interventions as the implementation evaluation part of hybrid studies. While assessing barriers and facilitators is helpful to understand why implementation efforts succeed or fail, implementation science is increasingly advocating a move beyond such studies. More specifically, scholars argue that there is more to gain from research on the multi-leveled strategies and mechanisms that drive effective implementation in different contexts (Lewis et al., 2020; Albers et al., 2020). Such research typically requires ambitious methods and designs optimized to answer implementation questions, which are not always compatible with hybrid research equally or more focused on evaluating interventions. The diversity showcased in the presentations is a good starting point for increasing knowledge about implementation across Norwegian contexts. However, making more substantial progress may require Norwegian implementation research to utilize research designs and strategies that address contemporary questions about effective implementation. For the time being, doing so may need creative and innovative grant writing to fit calls from the major funding institutions in Norway, which recent examples have shown is possible. In addition to lobbying funders, a national network can mobilize implementation researchers to support knowledge exchange around designing large implementation studies and procuring grants for implementation research that will move the field forward.

Acknowledgements. We would like to acknowledge Aida Babaii, Erlend Høen Laukvik, Randi Hovden Berge, Ragnhild Holm Löwgren, and Mari Mohn Paulsen for their collaboration in establishing NIMP as an organization. We also want to acknowledge Bianca Albers for her counsel in developing NIMP, and our employers for supporting the development of NIMP and the writing of this manuscript.

**Funding.** The development of NIMP and the NIMP conference was unfunded. NIMP board members are supported by their respective organizations of employment. The authors' time for writing this manuscript was supported by the authors' respective organizations of employment.

**Conflicts of interest/Competing interests.** The authors declare no conflicts of interest **Availability of Data and Material.** The data generated during the events presented in this article are not publicly available due to national ethical regulations but may be available from the corresponding author on reasonable request, if approved by the owners of the data.

Code Availability. Not applicable Ethics Approval. Not applicable Consent to Participate. Not applicable Consent for Publication. All included abstracts in the proceedings have been approved by presenters

#### References

- Aase, H., Lønnum, K., Sørlie, M. A., Hagen, K. A., Gustavson, K., & Utgarden, I. H. (2020).
  Barn, unge og kriminalitet. Hvordan forhindre at barn og unge kommer inn i eller fortsetter med en kriminell løpebane? Oppsummering og vurdering av virksomme tiltak, behandling og organisering. [Children, Youth, and Criminality. How to prevent children and youth from delinquency and criminality. Review and assessment of effective interventions, treatment, and organization]. Retrieved from: https://fhi.brage.unit.no/fhi-xmlui/bitstream/handle/11250/2688541/barn-unge-og-kriminalitet-2020.pdf?sequence=1
- Albers, B., Shlonsky, A., & Mildon, R. (2020). En Route to Implementation Science 3.0.In *Implementation Science 3.0* (pp. 1-38). Springer, Cham.
- Balietti, S., Mäs, M., & Helbing, D. (2015). On disciplinary fragmentation and scientific progress. *PloS one*, 10(3), e0118747.
- Baugerud, G. A., Vangbæk, S., & Melinder, A. (2018). Secondary traumatic stress, burnout and compassion satisfaction among Norwegian child protection workers: Protective and risk factors. *British Journal of Social Work*, 48(1), 215-235.
- Baumann, A. A., & Cabassa, L. J. (2020). Reframing implementation science to address inequities in healthcare delivery. *BMC health services research*, 20(1), 1-9.
- Bertram, R., Edwards, D., Engell, T., Kerns, S.E.U., Øvretveit, J., Rojas-Andrade, R., Sarkies,S., & Williams, C.R. (in press). Welcome to Global Implementation Research andApplications. *Global Implementation Research and Applications*, 1-4.

- Braithwaite, J., Churruca, K., Long, J. C., Ellis, L. A., & Herkes, J. (2018). When complexity science meets implementation science: a theoretical and empirical analysis of systems change. *BMC medicine*, *16*(1), 1-14.
- Chalmers, I., & Glasziou, P. (2009). Avoidable waste in the production and reporting of research evidence. *The Lancet*, *374*(9683), 86-89.
- Christiansen, N. F. (Ed.). (2006). *The Nordic model of welfare: a historical reappraisal*. Museum Tusculanum Press.
- Curran, G. M., Bauer, M., Mittman, B., Pyne, J. M., & Stetler, C. (2012). Effectivenessimplementation hybrid designs: combining elements of clinical effectiveness and implementation research to enhance public health impact. *Medical care*, *50*(3), 217.
- Diehl, H., Graverholt, B., Espehaug, B., & Lund, H. (2016). Implementing guidelines in nursing homes: a systematic review. *BMC health services research*, *16*(1), 1-12.
- Domitrovich, C. E., Bradshaw, C. P., Poduska, J. M., Hoagwood, K., Buckley, J. A., Olin, S.,
  Romanelli, L. H., Leaf, P. J., Greenberg, M. T., & Ialongo, N. S. (2008). Maximizing
  the Implementation quality of evidence-based preventive interventions in schools: A
  conceptual framework. *Advances in School Mental Health Promotion*, 1(3), 6–28.
- Dugstad, J., Eide, T., Nilsen, E. R., & Eide, H. (2019). Towards successful digital transformation through co-creation: a longitudinal study of a four-year implementation of digital monitoring technology in residential care for persons with dementia. *BMC Health Services Research*, 19(1), 1-17.
- Egeland, K. M., Ruud, T., Ogden, T., Färdig, R., Lindstrøm, J. C., & Heiervang, K. S. (2017). How to implement Illness Management and Recovery (IMR) in mental health service

settings: evaluation of the implementation strategy. *International Journal of Mental Health Systems*, *11*(1), 1-10.

- Eisman, A. B., Kilbourne, A. M., Dopp, A. R., Saldana, L., & Eisenberg, D. (2020).
  Economic evaluation in implementation science: making the business case for implementation strategies. *Psychiatry research*, 283, 112433.
- Engell, T. (2021). Co-design and implementation of common elements-based academic support in Norwegian Child Welfare Services. [Doctoral dissertation, University of Oslo]. https://www.duo.uio.no/bitstream/handle/10852/86479/1/PhD-Engell-DUO.pdf
- Engell, T., Follestad, I. B., Andersen, A., & Hagen, K. A. (2018). Knowledge translation in child welfare—improving educational outcomes for children at risk: study protocol for a hybrid randomized controlled pragmatic trial. *Trials*, *19*(1), 714.
- Engell, T., Kirkøen, B., Hammerstrøm, K. T., Kornør, H., Ludvigsen, K. H., & Hagen, K. A.
  (2020). Common elements of practice, Process and Implementation in Out-of-School-Time Academic Interventions for At-risk Children: a Systematic Review. *Prevention Science*, 21(4), 545-556.
- Ertesvåg, S. K., Roland, P., Vaaland, G. S., Størksen, S., & Veland, J. (2010). The challenge of continuation: Schools' continuation of the Respect program. *Journal of Educational Change*, 11(4), 323-344.
- Evans, B. A., Snooks, H., Howson, H., & Davies, M. (2013). How hard can it be to include research evidence and evaluation in local health policy implementation? Results from a mixed methods study. *Implementation Science*, 8(1), 1-9.
- Fixsen, D. L., & Blase, K. A. (2020). Active implementation frameworks. In *Handbook on Implementation Science*. Edward Elgar Publishing.

- Flottorp, S., & Oxman, A. D. (2003). Identifying barriers and tailoring interventions to improve the management of urinary tract infections and sore throat: a pragmatic study using qualitative methods. *BMC Health Services Research*, 3(1), 1-10.
- Forsetlund, L., & Bjørndal, A. (2001). The potential for research-based information in public health: identifying unrecognised information needs. *BMC public health*, *1*(1), 1-8.
- Gazni, A., Sugimoto, C. R., & Didegah, F. (2012). Mapping world scientific collaboration: authors, institutions, and countries. Journal of the American Society for Information Science and Technology, 63(2), 323-335
- Girlanda, F., Fiedler, I., Becker, T., Barbui, C., & Koesters, M. (2017). The evidence–practice gap in specialist mental healthcare: systematic review and meta-analysis of guideline implementation studies. *The British Journal of Psychiatry*, 210(1), 24-30. Retrieved from http://bjp.rcpsych.org/content/bjprcpsych/210/1/24.full.pdf
- Glasgow, R. E., Vinson, C., Chambers, D., Khoury, M. J., Kaplan, R. M., & Hunter, C.
  (2012). National Institutes of Health approaches to dissemination and implementation science: current and future directions. *American journal of public health*, *102*(7), 1274-1281.
- Goense, P., Etzelmueller, A., & Alberes, B. (2020). Implementation Networks Report: A study on implementation networks within Europe. ZonMw, The Hague

Graverholt B, Ciliska D, Steinseide E, Eidset R, Nicolajsen KH, Johansen AW, Steinskog TLD, Nortvedt MW. A partnership to foster knowledge translation in Norwegian nursing homes. In: McCutcheon C, Reszel J, Kothari A, Graham ID, editors. *How We Work Together: The Integrated Knowledge Translation Research Network Casebook*. Volume 4. Ottawa, ON: Integrated Knowledge Translation Research Network. 2021; p. 30-34. Available from: <u>https://iktrn.ohri.ca/projects/casebook/</u>

- Hall, K., Staiger, P. K., Simpson, A., Best, D., & Lubman, D. I. (2016). After 30 years of dissemination, have we achieved sustained practice change in motivational interviewing?. *Addiction*, 111(7), 1144-1150.
- Humphrey, N., Lendrum, A., Ashworth, E., Frearson, K., Buck, R., & Kerr, K. (2016).Implementation and process evaluation (IPE) for interventions in education settings:An introductory handbook. *Education Endowment Foundation*, *1*.
- Ivers, N. M., & Grimshaw, J. M. (2016). Reducing research waste with implementation laboratories. *Lancet (London, England)*, 388(10044), 547-548.
- Jacobs, S. R., Weiner, B. J., & Bunger, A. C. (2014). Context matters: measuring implementation climate among individuals and groups. *Implementation Science*, 9(1), 1-14.
- Jull, J., Giles, A., & Graham, I. D. (2017). Community-based participatory research and integrated knowledge translation: advancing the co-creation of knowledge. *Implementation Science*, 12(1), 150.
- Kayed, N. S., Jozefiak, T., Rimehaug, T. O. R. M. O. D., Tjelflaat, T., Brubakk, A. M., & Wichstrom, L. (2015). Psykisk helse hos barn og unge i barnevernsinstitusjoner
  [Mental Health in Children and Adolescents in Child Welfare
  Institutions]. *Trondheim: Norwegian University of Science and Technology, Faculty of Medicine, RKBU*.
- Kirchner, J. E., Smith, J. L., Powell, B. J., Waltz, T. J., & Proctor, E. K. (2020). Getting a clinical innovation into practice: an introduction to implementation strategies. *Psychiatry Research*, 283, 112467.

- Lau, R., Stevenson, F., Ong, B. N., Dziedzic, K., Treweek, S., Eldridge, S., et al. (2015).
   Achieving change in primary care—causes of the evidence to practice gap: systematic reviews of reviews. *Implementation Science*, 11(1), 40.
- Lengnick-Hall, R., Stadnick, N. A., Dickson, K. S., Moullin, J. C., & Aarons, G. A. (2021).
  Forms and functions of bridging factors: specifying the dynamic links between outer and inner contexts during implementation and sustainment. *Implementation Science*, *16*(1), 1-13.
- Lewis, C. C., Boyd, M. R., Walsh-Bailey, C., Lyon, A. R., Beidas, R., Mittman, B., ... & Chambers, D. A. (2020). A systematic review of empirical studies examining mechanisms of implementation in health. *Implementation Science*, 15(1), 1-25.
- Lyon, A. R., Dopp, A. R., Brewer, S. K., Kientz, J. A., & Munson, S. A. (2020). Designing the Future of Children's Mental Health Services. Administration and Policy in Mental Health and Mental Health Services Research, 47(5), 735-351.
- Moore, G., Audrey, S., Barker, M., Bond, L., Bonell, C., Hardeman, W., ... & Baird, J.
  (2014). Process evaluation of complex interventions. UK medical Research Council (MRC) guidance, 1-133.
- Nilsen, P., & Bernhardsson, S. (2019). Context matters in implementation science: a scoping review of determinant frameworks that describe contextual determinants for implementation outcomes. *BMC health services research*, *19*(1), 1-21.
- Nilsen, P., & Birken, S. A. (2020). *Handbook on implementation science*. Edward Elgar Publishing.
- Nilsen, P., & Cairney, P. (2020). Policy implementation research. In *Handbook on Implementation Science*. Edward Elgar Publishing.

- Nohria, N., & Eccles, R. (2000). Face-to-face: Making network organizations work. *Technology, organizations and innovation: Critical perspectives on business* and management, 1659-1681.
- Ogden, T., Askeland, E., Christensen, B., Christiansen, T., & Kjøbli, J. (2018). Crossing national, cultural, and language barriers: Implementing and testing evidence-based practices in Norway.
- Ornstein, J. T., Hammond, R. A., Padek, M., Mazzucca, S., & Brownson, R. C. (2020). Rugged landscapes: complexity and implementation science. *Implementation Science*, *15*(1), 1-9.
- Paulsen, M. M., Varsi, C., & Andersen, L. F. (2021). Process evaluation of the implementation of a decision support system to prevent and treat disease-related malnutrition in a hospital setting. *BMC health services research*, 21(1), 1-13.
- Proctor, E., Silmere, H., Raghavan, R., Hovmand, P., Aarons, G., Bunger, A., ... & Hensley,
  M. (2011). Outcomes for implementation research: conceptual distinctions,
  measurement challenges, and research agenda. *Administration and Policy in Mental Health and Mental Health Services Research*, 38(2), 65-76.
- Research Council of Norway (2014). "Health&Care21:" Et kunnskapssystem for bedre folkehelse. Nasjonal forsknings- og innovasjonsstrategi for helse og omsorg [A Knowledge system for improving public health. National research and innovation strategy for health and welfare]. Retrieved from:

https://www.helseomsorg21.no/contentassets/1093b5baed6a4ee39eac5b8d59bb32e7/p df/helseomsorg21strategien-1.pdf

Research Council of Norway (2016). «BetterHealth:» Helheltlig helsesatsning I Forskningsrådet. Policy for forskning og innovasjon 2016-2020 [Integrated health investment in the research council. Policy for research and innovation]. Retrieved from: <u>https://www.forskningsradet.no/om-</u>

forskningsradet/publikasjoner/2016/helhetlig-helsesatsing-i-forskningsradet/

Research Council of Norway (2017). "HealthWell:" Programplan. Gode og effective helse-, omsorgs-, og velferdstjenester [Program plan. Good and effective health, care, and welfare services]. Retrieved from:

https://www.forskningsradet.no/contentassets/6d45731a23754d0487440d1bbad0a9f2/ helsevel-programplan-2015-2024-oppdatert-2019.pdf

Research Council of Norway (2021). «Children&Youth21:» Ut av blindsonene. Strategi for samlet kunnskapsløft for utsatte barn og unge [Out of the blindsone. Strategy for a collective knowledge improvement]. Retrieved from:

https://www.forskningsradet.no/om-forskningsradet/publikasjoner/2021/barnunge21strategien-ut-av-blindsonene/

- Ruud, T. (2015). Routine outcome measures in Norway: Only partly implemented. *International Review of Psychiatry*, 27(4), 338-344.
- Ruud, T., Drake, R. E., Benth, J. Š., Drivenes, K., Hartveit, M., Heiervang, K., ... & Bond, G.
  R. (2021). The Effect of Intensive Implementation Support on Fidelity for Four
  Evidence-Based Psychosis Treatments: A Cluster Randomized Trial. *Administration and Policy in Mental Health and Mental Health Services Research*, 1-12.
- Scaccia, J. P., Cook, B., & Wandersman, A. (2020). Building organizational readiness (capacities x motivation) for implementation: A research synthesis of the empirical evidence. Advance online publication. Doi: 10.31235/osf.io/84cjq
- Statistics Norway (SSB). Child Welfare Services. 2020. <u>https://www.ssb.no/sosiale-forhold-og-kriminalitet/statistikker/barneverng</u>. Accessed 30 Nov 2020.

- Stirman, S. W., Kimberly, J., Cook, N., Calloway, A., Castro, F., & Charns, M. (2012). The sustainability of new programs and innovations: a review of the empirical literature and recommendations for future research. *Implementation science*, 7(1), 1-19.
- Varsi, C., Ekstedt, M., Gammon, D., & Ruland, C. M. (2015). Using the consolidated framework for implementation research to identify barriers and facilitators for the implementation of an internet-based patient-provider communication service in five settings: a qualitative study. *Journal of medical Internet research*, 17(11), e262.
- Westerlund, A., Nilsen, P., & Sundberg, L. (2019). Implementation of implementation science knowledge: the research-practice gap paradox. *Worldviews on evidence-based nursing*, 16(5), 332.
- Ådnanes, M., Kaspersen, S. L., Melby, L., & Lassemo, E. (2020). Pakkeforløp for psykisk helse og rus - fagfolks erfaringer første året [Standardized care pathways for mental health and substance abuse – practitioners experiences the first year]. SINTEF Rapport, SINTEF.

**Tables** 

Table 1

Key Terms and Definitions

Term Definition

### LAUNCH OF NETWORK AND CONFERENCE PROCEEDINGS

Implementation	The act of carrying intentions into effect (Peter et al., 2013).
	In this article, intentions refer to evidence-informed practices, programs, policies,
	guidelines, systems, or other improvement efforts (collectively referred to as
	interventions).
Implementation	Scientific inquiry into questions concerning implementation – the act of carrying
research	intentions into effect.
Implementation science	The scientific discipline of implementation research.
Research network	Organized structure of ties among individuals with mutual interests in a scientific
	discipline or topic (Nohria & Eccles, 2000).
research Implementation science	guidelines, systems, or other improvement efforts (collectively referred to as interventions). Scientific inquiry into questions concerning implementation – the act of carrying intentions into effect. The scientific discipline of implementation research. Organized structure of ties among individuals with mutual interests in a scientific

# Table 2

European Networks Focused on Implementation Research and Practice

Network	Year launched
Implementation Network of Ireland and Northern Ireland	2012
Danish Implementation Network (DIN)	2012
Nordic Implementation Interest Group	2013
European Implementation Collaborative (EIC)	2015
UK Implementation Society (UK-IS)	2017
German Speaking Implementation Association (GSIA)	2017
Swiss Implementation Science Network (IMPACT)	2020

Note. Adapted from Goense & colleagues (2020)

# Table 3

Characteristics of Attendees at the 2020 NIMP Conference

Attendees at the NIMP conference $(N = 144)$	Ν	(%)
Women	109	(78.9)
Title		

Coordinator/consultant		(36.1)
Researcher (professor, associate professor, lecturer)		(25.0)
Director/manager	18	(12.5)
PhD student/Postdoctoral	18	(12.5)
Psychologist/nurse/physiotherapist	13	(9.0)
Student	7	(4.9)
Affiliation		
Research- and quality improvement organizations	53	(36.8)
Academia	34	(23.6)
Hospital	23	(16.0)
Bureaucracy	18	(12.5)
Municipality		(6.3)
Other	7	(4.9)

# Table 4

## Presenters and Presentations at the 2020 NIMP Conference

Presenters	Title of Presentation	#
Engell, T.	How can evidence-informed common elements facilitate the	1
	implementation of evidence-informed practice? A case study of	
	implementability in child welfare services	
Grønlie, A.	Implementation outcomes after 20 years of implementing Parent	2
	Management Training – Oregon (PMTO)	
Tjelta, T. H.	Evidence-based implementation of FACT - Flexible Assertive Community	3
	Treatment in Norway	
Graverholt, B., Espehaug, B.,	IMPAKT i sykehjem: Sammen for kunnskapsbasert praksis i sykehjem	4
Nortvedt, M. W., Ciliska, D.		
Steinskog, T-L., Tranvåg, O.,	Practice Development Nurses' perceptions of conditions necessary to	5
Nordtvedt, N. W., Ciliska, D.,	succeed in the intervention of translating knowledge in nursing homes $-a$	
Graverholt, B.	qualitative study	
Ertesvåg, S. K	Implementation framework in the Resilient study	6
Randby, J. S.	Facilitators and barriers of good meal practice in school: perceptions	7
	among principals, SFO leaders, teachers and children	
Øktedalen, T.	From policy to action – Implementing universal parental training programs	8
	in public services on a nationwide basis.	
Hansson, K. M., Pedersen,	Barriers to family involvement in mental health care during severe mental	9
R., Heiervang K. S.	illness	

# LAUNCH OF NETWORK AND CONFERENCE PROCEEDINGS

Fjermestad, K.	Intervention for siblings and parents of children with chronic disorders:	10
	SIBS-RCT	
Stokke, K.	A goal without a plan is just a wish	11
Taraldsen, K., Thøgersen, D.	20 years of implementation of evidence-based practices	12
М.		