



# Professionals' Experiences with Local Implementation of the Greenlandic Parenting Programme MANU 0–1 Year

Christine Ingemann<sup>1,2</sup> · Tine Tjørnhøj-Thomsen<sup>3</sup> · Siv Kvernmo<sup>4</sup> · Dina Berthelsen<sup>5</sup> · Vibeke Aviaja Johnsen Biilmann<sup>6</sup> · Birgitte Mørk Kvist<sup>7</sup> · Jaraq Lorentzen<sup>5</sup> · Vibe Kjer Nemming<sup>8</sup> · Rie Mette Sarkov<sup>6</sup> · Aininaq Willesen<sup>6</sup> · Christina Viskum Lytken Larsen<sup>1,2</sup>

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## Abstract

Historically, public health interventions in Greenland are primarily adopted from a Scandinavian context or developed centrally in the capital city instead of building on communities' local resources and strengths. The aim of this article is to identify implementation determinants from professionals' perspectives in the implementation of the parenting programme *Meeraq Angajoqqaat Nuannaarneq* (MANU, meaning child's and parent's happiness) 0–1 Year, at the local level in three of Greenland's five health regions. The study applied the Consolidated Framework for Implementation Research. Semi-structured interviews with 18 health professionals and six managers in healthcare and with four municipality personnel were held. Additionally, data on staffing from the Board for Health and Prevention was gathered. Professionals agree on the importance of having a universal parenting programme, but it is not a priority to them. Characteristics of the programme were a barrier in implementation in some local contexts, such as professionals experiencing parents being uncomfortable with participating in group sessions. Many professionals felt it was a daunting task to facilitate a group session. MANU was also incompatible with existing workflows. High turnover in the healthcare system makes it difficult to implement and sustain programmes. Professionals found it difficult to apply supervision provided by the MANU team and, at times, did not feel recognised in their efforts. Adaptations were made to MANU to fit local contexts. The identified determinants hindering local implementation link back to MANU's complexity and inadequate preparatory investigations made into aspects influencing implementation during MANU's conceptualisation and development. Many of the barriers identified could have been prevented by involving local community perspectives from professionals and families from the outset of MANU.

**Keywords** Implementation science · Health promotion · Consolidated framework for implementation research · Health services · Arctic · Qualitative methods

✉ Christine Ingemann  
chin@sdu.dk

<sup>1</sup> Centre for Public Health in Greenland, National Institute of Public Health, University of Southern Denmark, Studiestræde 6, 1455 Copenhagen, Denmark

<sup>2</sup> Greenland Center for Health Research, Institute of Health and Nature, Ilisimatusarfik – University of Greenland, Nuuk, Greenland

<sup>3</sup> Department of Health and Social Context, National Institute of Public Health, University of Southern Denmark, Copenhagen, Denmark

<sup>4</sup> IKM, Faculty of Health Sciences, UiT – The Arctic University of Norway, Tromsø, Norway

<sup>5</sup> Sundhedsplejen, Queen Ingrid's Healthcare Centre, Nuuk, Greenland

<sup>6</sup> Surgical Area, Queen Ingrid's Hospital, Maternity Ward, Nuuk, Greenland

<sup>7</sup> Godstrup Hospital, Herning, Denmark

<sup>8</sup> Aasiaat Hospital, Aasiaat, Greenland

## Abbreviations

CFIR	Consolidated Framework for Implementation Research
MANU	Meeraq Angajoqqaat Nuannaarneq – the Greenlandic parenting programme
PHN	Public health nurse

## Background

Large national interventions seldom build on local resources and strengths. This is also the case in Greenland, where the varying local contexts between communities are rarely considered. Historically, public health interventions in Greenland have been adopted, typically from a Nordic country (primarily Denmark) (Ingemann et al., 2021) or developed centrally by Greenland's governmental institutions in the capital city Nuuk. This paper defines interventions to include evidence-based or evidence-informed programmes, policies, guidelines, and practices, which intend to improve the health of individuals, groups, or populations (Brown et al., 2017). An evidence-based intervention is broadly defined as an intervention that has been tested and found to be effective at improving individual or population-level health (Brown et al., 2017; Leeman & Nilsen, 2020). An evidence-informed intervention is here understood as an intervention that is based on scientific theories and evidence, but the intervention's effectiveness has not been tested. In Greenland, evaluations of evidence-informed public health interventions document how programme adherence rarely occurs or that interventions have not been sustained after initial implementation (Dyrløv, 2012; Ingemann & Larsen, 2018; Ingemann et al., 2018, 2019; Olesen et al., 2022). The main causes identified relate to a lack of fit to local context.

Internationally, scholars discuss finding the right fidelity-adaptation balance when implementing evidence-based interventions developed in one context and implementing them in another, including different cultures (Baumann et al., 2015; Castro et al., 2004; Kumpfer et al., 2002; Pérez et al., 2015). Implementation fidelity is "the degree to which an intervention or programme is delivered as intended" (Carroll, 2020). "Adaptation is the process of implementers or users bringing changes to the original design of an intervention", which depending on the adaptations made can positively or negatively affect expected intervention outcomes (Pérez et al., 2015). In the theoretical proposition by von Thiele Schwarz et al. (2019), fidelity and adaptation are complementary. They argue that an implementation strategy either enables changes to the context to increase fidelity or it promotes adaptations to achieve a fit to local context.

However, implementation strategies are rarely justified theoretically and lack clarity in their description to understand specific elements (Proctor et al., 2013). This refers

to research as well as practice. An implementation strategy incorporates "methods or techniques used to enhance the adoption, implementation and sustainability" of a programme (Proctor et al., 2013). In Greenland, we see many public health interventions lacking a solid implementation strategy. Familiarity with, for example, action models that guide the implementation processes (Nilsen, 2015) is not common knowledge to lay personnel, who develop and disseminate interventions in their daily work in Greenland.

This study focuses on the universal parenting programme *Meeraq Angajoqqaat Nuannaarneq* (MANU, meaning child's and parent's happiness) 0–1 Year, henceforth only MANU. MANU was initiated in 2016 to provide expectant and new parents with information and reflections on parenthood through pedagogical exercises (God Barndom, 2016; Ingemann et al., 2021). A preceding study, investigating MANU's development and first years of implementation, describes how MANU is an evidence-informed programme with no specified implementation strategy (Ingemann et al., 2021). However, the actions taken by the developing team are the dissemination of materials, including a detailed manual for carrying out group sessions and providing three-day introductory trainings to professionals, where implementation fidelity was urged. Professionals were expected to implement MANU while waiting to receive or after having received the training (Ingemann et al., 2021). Support by email or phone by the coordinating MANU team in Nuuk has been given when requested or when problems were identified. Like other national interventions in Greenland, MANU lacks an implementation strategy, which includes the absence of the programme's core elements being defined. This poses a challenge for the MANU team's ambition to reach implementation fidelity (Ingemann et al., 2021), since defined core elements are necessary to measure fidelity (Carroll, 2020; Stirman et al., 2019).

Few implementation studies have been conducted in Greenland (Ingemann et al., 2018) and in the Arctic (Alvarez et al., 2016, 2020; Gautier et al., 2016). Preceding publications connected to the present article investigated the programme development and parents' perspectives on MANU (Ingemann, 2023; Ingemann et al., 2021, 2022, 2023). The aim of this study is to investigate the local implementation of the parenting programme MANU with an attention towards local professionals having to balance the requirement of implementation fidelity and making it work in their local context. Analytically the study was inspired by key concepts from implementation science, in particular the Consolidated Framework for Implementation Research (CFIR) by Damschroder et al. (2009). We applied qualitative methods to investigate implementation determinants from professionals' perspectives in MANU's local implementation in three of Greenland's five health regions. Our study is guided by the following research questions: How do professionals

experience the implementation of MANU into their local context?

## Determinant Framework

Determinant frameworks provide an overview of hypothesised or empirically found categories that influence implementation outcomes (Damschroder et al., 2009, 2022a; Durlak & DuPre, 2008; Greenhalgh et al., 2004; Nilsen, 2015). The Consolidated Framework for Implementation Research (CFIR) by Damschroder et al. (2009) was applied in the present study. It provides an overarching systematic classification of implementation determinants that facilitate insights into “what works where and why across multiple contexts” (Damschroder et al., 2009). CFIR gives an overview of determinants influencing implementation outcomes by either hindering or facilitating implementation. This includes the domains intervention characteristics and characteristics of individuals, as well as the contextual domains process, inner setting and outer setting (Damschroder et al., 2009). The CFIR was chosen for this study because of its breadth of included aspects that influence implementation. With the study’s focus in mind, special attention was given to the programme’s adaptability, the execution of the implementation, professionals’ self-efficacy and contextual factors such as the healthcare system’s structural characteristics and collaboration within and outside the organisation.

## Methods

We chose a qualitative approach because there is limited documentation concerning challenges with local implementation in Greenland from professionals’ perspective. Interviews were considered the most relevant method for gaining a deeper understanding of this issue. The Consolidated Criteria for Reporting Qualitative Research (COREQ) were applied for reporting this study (Tong et al., 2007). Information of the first domain is provided in the acknowledgements.

The present study applies a community-based participatory research (CBPR) approach. Based on Wallerstein et al. (2018), key principles in CBPR, a reference group consisting of stakeholders involved or related to MANU was established in 2018 and involved in the project since then (Ingemann, 2023; Ingemann et al., 2021). In the present study the reference group set the study’s aim, decided on study sites, contributed to the analysis and engaged in identifying recommendations. The first author (CI) was not directly involved in MANU’s implementation but may through the involvement of the reference group indirectly have influenced the implementation processes.

## Study Context

Greenland (*Kalaallit Nunaat*) is the largest island and least densely populated country in the world with a total population of 56,421 (Grønlands Statistik, 2021). The population, close to 90% ethnic Greenlanders (Inuit), lives in 16 towns and 54 villages along the coastal strip, which are isolated from each other and only connected by air or sea. There are marked socioeconomic and infrastructural differences between both towns and villages (Bjerregaard & Larsen, 2016). A third of the population lives in the capital city Nuuk. A former Danish colony, Greenland gained Home Rule in 1979 and Self Rule in 2009 but is still part of the Kingdom of Denmark. It has roughly adopted the Danish welfare model and healthcare system. The national language is Greenlandic (*Kalaallisut*) and both Greenlandic and Danish are taught in schools.

The regional hospitals are located in the five regional capitals. At the time of data collection women could give birth in the national hospital in Nuuk, the regional hospitals in Qaqortoq, Sisimiut and Ilulissat or Tasiilaq’s health centre. Just one year before, in 2019, the regional hospital in Aasiaat lost its delivery facility due to turnover in personnel, which could not be reemployed. However, a midwife and a public health nurse position remain in Aasiaat to provide perinatal care. From September 2022 to January 2023, the regional hospital in Qaqortoq temporarily lost its function as a delivery facility. The latest available overview of live births in Greenland is from 2019, due to COVID-19 having delayed the National Board of Health in their yearly reporting. In 2019, there were a total of 850 live births of which half occurred away from the birthing mother’s hometown. Three out of four births occurred in Nuuk, of which over half have travelled to Nuuk to give birth. Between 25 and 68 births respectively took place at the remaining four birthing facilities that existed in 2019, while 20 births occurred away from a birthing facility. A detailed overview is provided in the Supplementary file 1.

The midwives and public health nurses are responsible for providing services to the other towns and villages in their regions by either visiting the communities, transporting women to their town or through videoconference calls which are set up and assisted by the health assistants in the corresponding localities. With health assistants the authors are grouping several professionals with a lower education level than midwives and public health nurses. This includes, for example, perinatal assistants. In smaller towns and in villages health centres have fewer employees due to a smaller population, hence health assistants are involved in all aspects of care.

## The Intervention (MANU)

The public health intervention, MANU, is based on developmental theories, evidence on the first thousand days of life and the challenge of high number of vulnerable families in Greenland (Ingemann et al., 2021). The development of MANU was led by an experienced midwife with practice experience in Greenland and a Danish consulting firm (Ingemann et al., 2021). A reference and steering group consisting of professionals from Nuuk and one from a smaller town were involved to review and approve materials ensuring the programme fitted the Greenlandic context. Although MANU is based on evidence and theories, it is not an evidence-based intervention, but evidence-informed. Ultimately, MANU is expected to secure a healthy foundation for children's development and reduce the prevalence of adverse childhood experiences (Felitti et al., 1998; God Barndom, 2016). MANU 0–1 Year is the first MANU programme material of many. After MANU 0–1 Year guiding material for parents and professionals has been developed up until school-aged children. As stated above, this study focused on the very first developed MANU material. MANU provides parents with a book containing information and conversational exercises on the perinatal period and transition to parenthood. Midwives, public health nurses (Danish: *sundhedsplejerske*), or health assistants facilitate six antenatal and three postnatal 2.5-h sessions (God Barndom, 2016; Ingemann et al., 2021, 2022). The book and sessions coincide in terms of content.

## Data Collection

We conducted semi-structured interviews with a total of 18 health professionals and six managers in healthcare, and four municipality personnel. Table 1 provides an overview. The interviewer (CI) moved the conversation forward by ensuring that prepared questions are covered while also allowing to follow interesting and unanticipated topics that arise during the interview (Brinkmann & Kvale, 2015; Given, 2008). The three of Greenland's five regions were selected for data collection together with the project's reference group. Data

were primarily collected in the largest towns of the three regions, while a few smaller towns within the region were included through phone interviews.

For triangulation of the qualitative data that describes professionals' work environment, the Board for Health and Prevention (Danish: *Sundhedsledelsen*) gave the authors access to the staffing norms and patterns of midwives and public health nurses in 2020. The aim of this triangulation was to confirm professionals' descriptions of high turnover and lack of human resources in their local context (Palinkas et al., 2011).

The study set out to interview, on average, two midwives and two public health nurses in each of the three study sites. During preparation, it became clear that including local managers' perspective on the implementation of MANU would be interesting. Local managers are expected to support and approve resources spent on MANU. Furthermore, in the first interview with a midwife, the importance of talking to professionals in other towns of the region who are responsible for implementing MANU in their town, emerged. These professionals were either health assistants at the local health centre or employed at the local municipality's family centre.

The interview guide was developed by the first author (CI) based on i) the determinant framework CFIR (Damschroder et al., 2009); ii) topics discussed within the author team based on their fields of experience; and iii) Ingemann et al. (2021) findings of MANU's development and initial implementation. A pilot interview was conducted with a colleague and former midwife, after which few changes were made. Based on this interview guide, a shorter interview guide was developed for managers in healthcare. An English translation of both interview guides is provided in Supplementary file 2 and 3.

Midwives and public health nurses of each region were respectively invited to participate by email prior to visiting the study site to ensure their availability. Local managers were invited on site. Interviewed midwives and public health nurses gave suggestions and contact details to professionals in other towns of their region who were responsible for

**Table 1** Overview of Interviewed Professionals

Study site	Midwives	Public health nurses	Health assistants	Managers in healthcare	Municipality personnel
A	2	1		2	2
			1	1	2
B	3	1	1	1	
			1	1	
C	5	2		1	
	1				
Total	11	4	3	6	4

MANU. Professionals in the municipality were identified through midwives or by contacting the municipality.

The interviews were conducted in-person in an office at the hospital or over a videoconference or phone call. All interviews were conducted by CI in Danish. Most interviews were held individually. Only a few were in pairs because the participants preferred it this way. The duration of the interviews varied between 30 min up to one hour.

## Data Analysis

Interviews were audio-recorded after obtaining participants' consent. Recordings were transcribed primarily by CI and the remaining by a Danish student assistant.

All data were imported into the qualitative data analysis software NVivo12. A deductive thematic analysis using the CFIR was applied (Bundgaard & Mogensen, 2018; Given, 2008). First, CI coded all transcripts based on the CFIR determinants (Damschroder et al., 2009). Then, the coded data in each determinant was summarised, while data in some determinants were re-coded into related or broader determinants. Following, CI and CVLL discussed these summaries and decided on five main themes. Next, the results were orally presented in these five themes to the reference group, who then validated and discussed the results, while also identifying potential recommendations based on these findings. Lastly, transcripts, coded data in determinants, and the summaries were revisited for validation of the final presented results.

The quotes presented in this paper were translated from Danish into English.

## Ethical Considerations

The study has been performed in accordance with the Declaration of Helsinki, and the Greenlandic Science Ethics Committee (Danish: *Videnskabsetisk Udvalg*) granted ethical approval of the project.

Each participant was provided with an informed consent form in either Greenlandic or Danish, and the content was explained. Participants signed the form to document their informed consent and received a copy with the researcher's contact details. For the de-personification of the data, codes for each participant and material were developed. An Excel spreadsheet was used as a tracking method to keep an overview of planned, held and cancelled interviews. The date, participant's contact details, length of interview, interviewer, transcriber and quality check of transcription were noted. All data are stored on an encrypted drive, in accordance with data management guidelines.

The author team reflected on potential ethical concerns prior to interviewing professionals. It was important that the interviewer CI clarified her position as researcher due to

the project's collaboration with the MANU team and other stakeholders in management positions, who are involved in the project's reference group. CI ensured that no raw data would be shared with the reference group. All stakeholders and participants were invited to receive an e-mail newsletter on updates and results of the study.

## Results

The results are organised into the following main themes: i) characteristics of MANU as a programme; ii) context of the healthcare system; iii) prioritising limited resources; iv) professionals' perceptions of parents and v) professionals' need for support and skills. A total of 21 CFIR determinants in all five domains were identified to influence MANU's implementation. The presented results are described with the terminology used in the CFIR by Damschroder et al. (2009) and a summarising table of the results is provided in Supplementary file 4. The results primarily represent descriptions from interviews with midwives, public health nurses and health assistants (jointly referred to as *health professionals*). When results refer to all study participants, they are jointly referred to as *professionals*.

### Characteristics of MANU as a Programme

First, professionals' perspectives related to characteristics of the programme MANU are presented. Professionals commented on the programme's design, source, and the advantage of implementing MANU.

#### MANU's Design

All professionals acknowledged the excellence of MANU's material design and packaging. They described it as an "impressive product" or "beautiful material". MANU's ready-made slideshows and user-friendly manual are appreciated as good working tools, while some found them too instructive. Some reported that the material at first sight is so extensive that they get tired from just looking at it. There is a lot of material to comprehend, but in time professionals got familiar with the material and found it easier to use.

#### Intervention Source

Professionals criticised that MANU was centrally developed in Nuuk and seemingly disconnected from the local community. One health professional, for example, described how Nuuk and the rest of the country are different societies, which MANU does not take into consideration:



*“But I also think that both the pictures and some of the texts do not fit the context of our community. For example, there is something mentioned about going to a café. We do not have cafés here at all.” (Professional 1)*

### The Advantage of Implementing MANU

Midwives saw a relative advantage in MANU in contrast to the previous universal birth preparation programme *Prepared for Baby* (Danish: *Klar til Barn*), which was directly adopted and implemented from Denmark. Unlike that programme, MANU was developed in Greenland and features Greenlandic illustrations and animations.

Contrarily, some professionals did not see the advantage of implementing MANU. MANU’s content is similar to the work they already do, only packaged differently. For example, one health professional expressed how the topics in MANU are the same as in their individual consultations:

*“It’s nothing more than ordinary public health nursing. [...] I just thought ‘Yeah, that’s my job’ [laughs]. Right? Apart from the fact that MANU is done in groups, it is the same as what I do during home visits. It’s the same things we’re talking about.” (Professional 3)*

### Context of the Healthcare System

Health professionals shared their struggles and frustrations with the organisational structures of the health care system that hinder the implementation of MANU. Determinants connected to this made adaption of the programme inevitable.

### Professionals’ Work Environment

Based on the professionals’ descriptions, the organisational structures and context differ from region to region and from town to town. Health professionals can be hindered in their work with MANU due to acute tasks (e.g. births), servicing many families (e.g. home visits) and visits to towns and villages within their region, which involves logistic planning.

Sometimes turnover happens every three or six months, which makes introducing new staff to work tasks a burden to permanent staff. Below, one public health nurse expresses her dissatisfaction: “You’ve barely finished introducing the work to someone before they’re already leaving again. So, it’s hard to create continuity in MANU.” (Professional 3).

In Table 2, the staffing norms and amount of work conducted by midwives and public health nurses in all regional capitals and Tasiilaq, which are or were delivery facilities, are provided from the year 2020. While the third column

shows the staffing norms, the fourth column shows how many have been employed within 2020. The fifth column shows how much less or more than the norm for a year’s work has been registered. The final column includes notes that explain each line in a bit more detail.

Many professionals felt burdened with carrying the lone responsibility of having to implement MANU in their town or, for some, in their whole region. Midwives and public health nurses generally described their collaboration as good, while keeping tasks between them clearly separated. In some places, they worked closely together when initially implementing MANU. For health assistants outside regional capitals, receiving support and feedback from their regional midwife and public health nurse is important.

In some places, MANU or parts of MANU are provided by municipality personnel without collaborating with the local health professionals. In other places, a cross-sectoral collaboration exists, but this is person-dependent and depends on how cross-sectoral collaboration generally functions within a town or region. However, professionals agree that such a collaboration could potentially ease their workload.

### Applying MANU

Professionals acknowledged the MANU team’s interest that professionals adhere to implementing the full programme. In some regional capitals, health professionals managed full adherence for some months or more. But this changed due to turnover in personnel or an increased number of births, thereby altering the resources available. The adaptations made to MANU’s format and delivery to fit the local resources and context were accepted as a temporary solution but not encouraged by the MANU coordinator.

Adaptations included accumulating the nine sessions to four, shortening the session from 2.5 to 1.5 h, and changing or replacing topics based on the professional’s own appraisal. Professionals point out the importance for programmes to be adaptable to the different local context so that they can offer services relevant to the local community. One midwife expressed the importance of recognising local context and efforts:

*“The MANU team has to give those outside Nuuk permission to do what they can. Do the things that suit the local community, to get the best out of MANU. They should not demand from professionals to run all nine sessions. It simply cannot be done. They should understand that we do what we can, and that we are aware of what they want. But we can only take the essence of MANU, and that is probably the best we can do. However, in a town as large as Nuuk it might very well be possible.” (Professional 9)*

**Table 2** Staffing Norms and Patterns in 2020 (all data provided by the Board of Health and Prevention)

Sites	Health profession	Staffing norms	Number of employees	Actual work in 2020	Important details
Ilulissat (Regional capital)	Midwives	4	15	4.0 = as designated	Many had overtime but managed to work less before the end of the year
	Public health nurses	3	10	2.49 = 6 months less work than designated	None had overtime, but 1 PHN worked alone for almost 1 month
Aasiaat (Regional capital)	Midwives	1.68	2	1.17 = 6 months less work than designated	All months of the year, 1 midwife was present, with a short period of overlap at turnover. 1 midwife worked overtime for 5 out of 7 months
	Public health nurses	1	2	0.31 = almost 9 months less work than designated	In total, a PHN was present for only 5 months with no overlap at turnover
Sisimiut (Regional capital)	Midwives	3.12	4	1.17 = 1 year less work than designated	Almost all months 1 midwife present with little overlap at turnover. 2 midwives worked overtime in two months of their employment that year
	Public health nurses	1.1	2	1.19	The one permanent PHN throughout the year had only worked overtime 1 month
Nuuk (Capital city)	Midwives	15	39	17.2 = 2 years and 1.4 month more work than designated	1 midwife had 2 months of overtime at the end of 2020. Many worked overtime but managed to work less before the end of the year
	Public health nurses	7	7	6.49 = 6 months less work than designated	1 out of the 7 PHN only worked up until April 2020
Tasiilaq (Town on East coast)	Midwives	2.2	8	1.35 = 10 months less work than designated	All months of the year, 1 midwife was present, with at least 2 weeks overlap at turnover. 3 midwives worked overtime more than half of the months they were employed
	Public health nurses	1.5	3	0.81 = 9 months less work than designated	A PHN was present almost throughout the year with no overlap at turnover
Qaqortoq (Regional capital)	Midwives	2	7	2.7 = 8 months more work than designated	1 midwife had more than 2 months of overtime at the end of 2020. Others had overtime but managed to work less before the end of the year
	Public health nurses	2	3	1.41 = 7 months less work than designated	None had overtime, but 1 PHN worked alone for 6 months

In some towns, family centres working with at-risk families used MANU in individual consultations, or they selected elements of the MANU material and applied it in a parenting programme of their own design.

### Prioritising Limited Resources

A lack of resources, such as time, was by many professionals described as a barrier for implementing MANU. Already when MANU's national implementation was initiated the distribution and use of local resources to carry out MANU were unclear. Furthermore, some professionals experienced an intervention fatigue and their struggles with local implementation related to MANU's lack of compatibility, meaning it was not planned into existing workflows. Lastly, limited resources require a prioritisation of tasks, which means carrying out MANU comes further down the list.

### Unclear Distribution of Resources

From the outset of MANU's implementation, many practical things for local implementation were unclear and not in place, which made it an overwhelming task. One midwife described her experience:

*“There were many practical things that were not discussed in the course, and most often the MANU team's response to questions related to this was: ‘You will have to find out for yourself when you get back with your local managers.’ But, when the local managers are not involved in MANU, then it is difficult for them to comprehend the extra resources needed to implement it.” (Professional 8)*

Since MANU was launched it has not been clear to health professionals from where and how they should find the extra time and resources to carry out MANU. One midwife asked the question: “Well, what should we not be doing to make room for MANU?” (Professional 1).

### Intervention Fatigue

The few health professionals who have been permanent staff for several years expressed an intervention fatigue, where implementation of new programmes never is being followed through to the end. As explained by a health professional:

*“Then some new books are delivered. A lot of material that you have to administer, master and implement. It doesn't seem to come with any funds or introduction or anything. That's how I experience it. We just get sent a lot and my reaction is like ‘Phew!’. I hardly dare to open that box [chuckles], because then I have to deal with it.” (Professional 6)*

### MANU's Compatibility

Implementing MANU into existing workflows and systems is challenging. Professionals repeatedly underline how extensive MANU is in its format and content. In Nuuk, implementation of MANU has to be coordinated with a larger group of health professionals. In other regional capitals, the two or more health professionals need to coordinate and prioritise tasks to make space for MANU, and in smaller towns a single health assistant is often left to implement MANU on their own.

Many public health nurses outside Nuuk find themselves having to do the work of multiple nurses single-handedly, and therefore they need to prioritise their tasks. The high turnover with periods of understaffing leads to MANU being deprioritised. Outside the regional capitals, some health assistants also struggled to prioritise MANU, since it is not perceived as an essential task when working in a small health centre where assorted tasks are distributed among fewer employees.

### MANU is not a Priority

Health professionals see the general importance of supporting all parents through a programme like MANU, but there are more pressing issues and needs in Greenlandic communities. As one midwife put it: “I know MANU is important and I agree, but it just comes further down the list. It is not as important as other things.” (Professional 4).

In connection to this, many have also explained how MANU, even though it is a universal programme, rarely is attended by parents who “really need it”. One public health nurse clarified this: “Instead of using a lot of resources on sitting with two parents who are doing well, I could have spent my time on the more vulnerable parents.” (Professional 3).

### Professionals' Perceptions of Parents

Health professionals were also asked how they perceive MANU in terms of meeting the needs of expecting and new parents. Professionals' perceptions of parents' needs and resources can either encourage or discourage professionals from completing implementation.

Professionals expressed how MANU makes young people aware of their attitudes towards parenthood. They observed how the sessions give parents food for thought. Experiences with using the exercises and topics in MANU varied. On the one hand, some found the material to be repetitive or too contemplative for parents to comprehend. On the other hand, others experienced positive reactions from parents



on different exercises. Professionals would have liked more illustrations, activities and games to draw on to meet parents' different ways of learning.

In the regional capitals, health professionals often experienced how parents forgot to attend group sessions despite numerous reminders, and how parents did not prioritise coming to MANU, or could not attend sessions due to work. Some midwives also discussed the possibility of parents being overwhelmed by attending MANU sessions on top of regular consultations. Together with the regular consultations and the MANU sessions during pregnancy it can add up to 14 or more visits to the healthcare centre during normal workhours within eight months. This equals a visit almost every second week.

One health professional emphasised how she values meeting parents in group sessions in addition to individual consultations, allowing her to meet parents in a different setting and the parents also get a chance to hear other parents' experiences: "In my experience, parents talk more openly in group sessions, where they think deeper about the topics presented in MANU than they would do during individual consultations." (Professional 2).

Professionals found that parents, especially men, are rather quiet. The parents seem to find it difficult to share their thoughts in a group session. However, health professionals in Nuuk experienced this less often. Health professionals described how facilitating a group of introvert parents in a group setting can make it difficult to create good group dynamics.

### Professionals' Need for Support and Skills

In the interviews professionals provided feedback on the training they had received from the MANU team. Furthermore, they reflected on the support they have received from the team and what support they feel is lacking.

### From Training to Application

Professionals appreciated the three-day introductory training that was hosted by the MANU team and facilitated by the Danish consultant firm with a translator. At the training, professionals could learn about the intentions behind MANU and its content directly from the developers. However, most health professionals reported that the training did not meet their expectations and some even felt the facilitation of the training was condescending in regard to their professional level. Many professionals found that the developers of MANU had not thought beyond the three-day training.

Health professionals expressed the need of being trained in didactic skills. Facilitating group sessions and presenting in front of a group is a skill many professionals described to be uncomfortable with. For many this were daunting tasks

to carry out, especially alone and when you are a part of the local and intimate community. One midwife pointed out how MANU requires much more than what can be learned on a three-day course: "MANU is not driven by just providing professionals with a course. The professionals have to be passionate about it." (Professional 5).

Being passionate or motivated about running the programme was also mentioned by another professional in relation to the difficulty of sustaining MANU when turnover is high: "Then there is one person who is passionate about MANU and makes it work. Then she leaves her position, it all falls apart and the next one struggles putting the pieces back together." (Professional 7).

### Perceptions on the MANU Support Available

Most professionals found the MANU team, especially the MANU coordinator, to be visible. Some are in close contact with the MANU team to get support to overcome local challenges. These include local managers finding it difficult to motivate employees or health professionals being unable to find the resources to run MANU. While professionals appreciate the possibility to get support from the MANU team, they restrain from it because they feel that the guidance the team can give is limited when the team is not familiar with the local context.

Health professionals described that they are obliged to implement MANU, since the programme is decided upon politically. This is something the MANU team has made clear to them from the very beginning. However, professionals expressed disappointment with the MANU team not recognising professionals' efforts. As one professional put it: "I think we manage MANU as good as we can. Every now and then it would be nice to receive some recognition for the efforts we put into making it possible." (Professional 10).

Interviewed professionals requested to receive recognition and feedback, and some would appreciate the ability to network with others who succeed or struggle with MANU. Networking across regions depends on individuals' own initiative, but one health professional pointed out that listening to others' experiences with MANU can only serve as inspiration, since each local context is unique.

## Discussion

Results from the qualitative interviews with midwives, public health nurses, health assistants, managers and municipality personnel point at determinants affecting implementation process and outcomes. In general, the determinants are conditioned by the different local context and linked to the central development and coordination of the programme. The few anticipated or already

experienced determinants influencing local implementation in the preceding study (Ingemann et al., 2021) were confirmed in the present study. This study has identified determinants that professionals find hinder or facilitate local implementation, which concern all five domains in the CFIR by Damschroder et al. (2009).

### MANU's Complexity Constrains Local Implementation

Implementation fidelity impacts intervention outcome (Carroll, 2020). Complete fidelity is achieved when professionals implement MANU with adherence in terms of MANU's *content, coverage, frequency* and *duration* (Carroll, 2020). However, adaptations can be necessary and involve modification to either programme content or form of delivery (Castro et al., 2004). As Carroll (2020) points out: "Inevitably, in practice, it might not always be possible either to achieve or even to seek complete fidelity, such are the differences between the real and the experimental worlds."

Most professionals described having made adaptations to MANU's content and frequency. We did not specifically look into the details of the adaptations made, but professionals across regions and sectors made adaptations independently. Furthermore, as stated earlier, the core elements of MANU have not been defined by the developing team, this makes it difficult to assess implementation fidelity as well as adaptations made. MANU is a complex intervention due to its extensive content and format, of which all are considered to be essential elements of the programme, as well as the multiple actors and context involved. MANU is mostly offered in regional capitals and in a few small towns and thus it does not adhere to national coverage. Professionals struggled to adhere to MANU's content and frequency due to content being repetitive, but also because of a lack in capacity to implement all sessions as designed. The implementation and sustainability of MANU primarily relies on a motivated professional, which in itself is fragile but even more so in a context with high turnover. This compromises the programme's duration. Challenges with high turnover when implementing interventions in remote Arctic communities is common (Gautier et al., 2016; Mead et al., 2013).

Thus, the implementation of MANU is conditioned by local needs and resources implying the relevancy of involving local professionals and other relevant stakeholders in the development and implementation of the programme. Furthermore, this emphasizes the utility of an implementation strategy, which ideally would define core elements of an intervention, and the importance of making implementation science applicable and known in practice.

### The Complexity of the Professionals' Contexts

D'Lima et al. (2020) introduce the principle of *It Seemed Like A Good Idea At The Time* interventions, where the dissemination of materials and delivery of education are expected to be sufficient to enable effective and sustained behavioural change that ensures implementation of the intervention (D'Lima et al., 2020). This is also the case for the implementation strategy identified and defined by Ingemann et al. (2021) for MANU, which failed to meet professionals' needs by not planning beyond national dissemination and training of professionals.

MANU is built on the assumption that professionals have or will gain self-efficacy to facilitate and present in front of groups, but many were uncomfortable with it to begin with. Therefore, professionals suggest that the training should provide them with didactic skills. Additionally, due to Greenland's small population size, professionals work in tight-knit communities, which can complicate the professional-parent relationship. The professionals' social standing within their community matters when they are expected to contribute to the well-being of their communities (Cueva et al., 2021). In earlier Inuit communities, retaining harmony was crucial for the individuals' survival. Even to this day, preserving harmony (meaning one should hold back and not dominate) is a core value in Greenlandic culture (Olesen et al., 2020; Wistoft, 2009). Therefore, positioning oneself in a dominant position with a slideshow in front of one's own community can be stressful.

Professionals felt they had to implement MANU on their own. As with previous interventions, the task was not accompanied by additional resources, resulting in intervention fatigue. MANU was not compatible with existing workflows and professionals did not consider MANU a priority. This, together with the lack of support and recognition, made it difficult to stay motivated after having received their training. Again, many of these identified determinants could potentially have been prevented by involving local community perspectives from professionals and families during MANU's conceptualisation and development and throughout the implementation process.

The present study's findings and the connected preceding papers, which investigated the programme development and parents' perspectives on MANU, show the relevancy and need for a universal parenting programme and how MANU can provide a space to reflect for parents (Ingemann et al., 2022, 2023). However, the findings also show many weaknesses of MANU, where adaptation to local context was necessary (Ingemann et al., 2021, 2022, 2023). We argue that for the implementation of national interventions it is necessary to enable local context to tailor the programme to their needs and available resources. We do not see a case for de-implementation in the included study sites, but rather a need for the central

MANU team to open up for local adaptation of the programme and revising the programme with this in mind. However, as implementation research is still emerging in Greenland it is necessary to ensure a discussion of de-implementation of interventions prior to the development of new interventions among politicians, policymakers and other stakeholders in Greenland and the Arctic context in general.

## Theoretical Considerations

The CFIR was useful in informing the development of the interview guide and in capturing implementation factors involved in MANU's implementation. The contextual factors of inner and outer setting are dynamic and involve multiple levels. To accommodate the dynamic contexts in a real world setting and a complex system, we included a systems perspective to encourage a holistic and dynamic approach to the study setting (McGill et al., 2020; Plsek & Greenhalgh, 2001). In the analysis stage, ambiguity occurred when some data could be assigned to multiple CFIR constructs due to the identified determinants being interrelated. In the final stages of this manuscript, the author learned about the update CFIR (Damschroder et al., 2022a, b) and the CFIR Outcomes Addendum (Damschroder et al., 2022a, b). We find that the challenges we had with the CFIR in this study have been addressed in the CFIR updates.

## Strengths and Limitations

The broad number of participants enabled a broad representation of professionals, which supports internal generalisability (Maxwell, 2020). Besides having different professions and working in different sectors and contexts, participants had different lengths of professional experience and experience with working in Greenland. CI concluded data collection when data saturation was reached. The majority were permanent employees. Few differences in participants' perceptions based on location were reported due to the sensitivity of reporting in small populations. Data collection was conducted during the first year of the COVID-19 pandemic. During that period, MANU sessions could not be offered as the programme intended, due to implemented restrictions to prevent infection. This may have influenced participants' perceptions, since in some sites MANU had to be reinitiated after a short period of not being offered due to restrictions related to the pandemic.

## Conclusions

This study identified implementation determinants through professionals' perspectives on implementing the parenting programme MANU in their local context. Overall,

findings of the study show that there is a general recognition of MANU as an impressive product and a relevant health promoting intervention. However, in all study sites, adaptations to MANU's content and frequency were made. Adherence to MANU's full coverage has not been reached yet. The identified determinants hindering local implementation link back to MANU's complexity and inadequate preparatory investigations made into aspects influencing implementation during MANU's conceptualisation and development. The next steps in practice should investigate the adaptations made to MANU locally through professionals' and parents' feedback to identify MANU's core elements.

Many of the barriers identified could have been prevented by involving local community perspectives from professionals and families from the outset of MANU. This could be done by combining a community-based participatory research (CBPR) approach to intervention development and implementation. Such an approach would not only ensure equity in implementation but also strengthen implementation outcomes (Ingemann, 2023). The importance of assessing equity in implementation was introduced in the updated CFIR by Damschroder et al., (2022a, b). Furthermore, knowledge about implementation science needs to be accessible and known to health professionals, which is an aspect a CBPR approach would ensure as well. Finally, a comparison of implementation experiences across Arctic Indigenous communities would be insightful for intervention and implementation practice and research.

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**Author Contributions** CI, CVLL, SK, TTT conceived and designed the study. CI conducted all data collection with participation of BMK, JL, VKN, RMS, NPOS, AW. Data analysis was conducted by CI under the supervision of CVLL. CI drafted the manuscript. Critical revision of the manuscript was given by CI, SK, TTT, DB, VAJB, BMK, JL, VKN, RMS, AW, and CVLL. All authors reviewed and approved the manuscript.

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**Data Availability** The datasets analysed during the current study are not publicly available due to the difficulty of de-identifying qualitative

data in a small population like Greenland, but data are available from the corresponding author on reasonable request.

## Declarations

**Conflict of interest** The authors declare that they have no competing interests.

**Ethical Approval** The study has been performed in accordance with the Declaration of Helsinki and the Greenlandic Science Ethics Committee (Danish: Videnskabsetisk Udvalg) granted ethical approval of the project.

**Consent to Participate** Each participant was provided with an informed consent form in either Danish or Greenlandic, and the content was explained. Participants signed the form to document their informed agreement and received a copy with contact details.

**Consent for Publication** Not applicable.

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## References

- Alvarez, G. G., Van Dyk, D. D., Colquhoun, H., Moreau, K. A., Mulpuru, S., & Graham, I. D. (2016). Developing and field testing a community based youth initiative to increase tuberculosis awareness in remote Arctic Inuit communities. *PLoS One*, *11*(7), e0159241. <https://doi.org/10.1371/journal.pone.0159241>
- Alvarez, G. G., Van Dyk, D., Mallick, R., Lesperance, S., Demaio, P., Finn, S., Potvin, S. E., Patterson, M., Pease, C., Amaratunga, K., Hui, C., Cameron, D. W., Mulpuru, S., Aaron, S. D., Momoli, F., & Zwerling, A. (2020). The implementation of rifapentine and isoniazid (3HP) in two remote Arctic communities with a predominantly Inuit population, the Taima TB 3HP study. *International Journal of Circumpolar Health*, *79*(1), 1758501. <https://doi.org/10.1080/22423982.2020.1758501>
- God Barndom. (2016). *MANU - Forældreforberedelse*.
- Baumann, A. A., Powell, B. J., Kohl, P. L., Tabak, R. G., Penalba, V., Proctor, E. E., Domenech-Rodriguez, M. M., & Cabassa, L. J. (2015). Cultural adaptation and implementation of evidence-based parent-training: A systematic review and critique of guiding evidence. *Children and Youth Services Review*, *53*, 113–120. <https://doi.org/10.1016/j.childyouth.2015.03.025>
- Bjerregaard, P., & Larsen, C. V. L. (2016). Health aspects of colonization and the post-colonial period in Greenland 1721 to 2014. *Journal of Northern Studies*, *10*(2), 85–106.
- Brinkmann, S., & Kvale, S. (2015). *Interviews: Learning the craft of qualitative research interviewing*. Sage Publications.
- Brown, C. H., Curran, G., Palinkas, L. A., Aarons, G. A., Wells, K. B., Jones, L., Collins, L. M., Duan, N., Mittman, B. S., & Wallace, A. (2017). An overview of research and evaluation designs for dissemination and implementation. *Annual Review of Public Health*, *38*, 1–22.
- Bundgaard, H., & Mogensen, H. O. (2018). Analyse: arbejdet med det etnografiske materiale. In H. Bundgaard, H. Mogensen, & C. Rubow (Eds.), *Antropologiske projekter. En grundbog* (pp. 73–91). Copenhagen.
- Carroll, C. (2020). Fidelity. In P. Nilsen & S. A. Birken (Eds.), *Handbook on implementation science* (pp. 291–316). Edward Elgar Publishing.
- Castro, F. G., Barrera, M., & Martinez, C. R. (2004). The cultural adaptation of prevention interventions: Resolving tensions between fidelity and fit. *Prevention Science*, *5*(1), 41–45.
- Cueva, K., Ingemann, C., Zaitseva, L., Akearok, G. H., & Lavoie, J. G. (2021). Community health workers as a sustainable health care innovation: Introducing a conceptual model. *Elementa: Science of the Anthropocene*, *9*(1), 008. <https://doi.org/10.1525/elementa.2020.00008>
- Damschroder, L. J., Aron, D. C., Keith, R. E., Kirsh, S. R., Alexander, J. A., & Lowery, J. C. (2009). Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science. *Implementation Science*, *4*(1), 50.
- Damschroder, L. J., Reardon, C. M., Opra Widerquist, M. A., & Lowery, J. (2022a). Conceptualizing outcomes for use with the consolidated framework for implementation research (CFIR): The CFIR outcomes addendum. *Implementation Science*, *17*(1), 1–10.
- Damschroder, L. J., Reardon, C. M., Widerquist, M. A. O., & Lowery, J. (2022b). The updated consolidated framework for implementation research based on user feedback. *Implementation Science*, *17*(1), 1–16.
- D’Lima, D., Lorencatto, F., & Michie, S. (2020). The Behaviour Change Wheel approach. In P. Nilsen & S. A. Birken (Eds.), *Handbook on implementation science* (pp. 168–214). Edward Elgar Publishing.
- Durlak, J. A., & DuPre, E. P. (2008). Implementation matters: A review of research on the influence of implementation on program outcomes and the factors affecting implementation. *American Journal of Community Psychology*, *41*(3–4), 327. <https://doi.org/10.1007/s10464-008-9165-0>
- Dyrløv, C. (2012). *Klar til barn [Prepared for Baby]*.
- Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine*, *14*(4), 245–258.
- Gautier, L., Pirkle, C. M., Furgal, C., & Lucas, M. (2016). Assessment of the implementation fidelity of the Arctic Char distribution project in Nunavik. *Quebec. BMJ Global Health*, *1*(3), e000093.
- Given, L. M. (2008). *The Sage encyclopedia of qualitative research methods*. Sage publication.
- Greenhalgh, T., Robert, G., Macfarlane, F., Bate, P., & Kyriakidou, O. (2004). Diffusion of innovations in service organizations: systematic review and recommendations. *The Milbank Quarterly*, *82*(4), 581–629.
- Ingemann, C. (2023). *Putting families and local professionals at the heart of implementation research: A qualitative implementation study on Greenland’s universal parenting programme MANU 0–1 Year* [PhD, University of Southern Denmark]. Denmark. <https://portal.findresearcher.sdu.dk/en/publications/putting-families-and-local-professionals-at-the-heart-of-implement>
- Ingemann, C., & Larsen, C. V. L. (2018). *Midtvejsevaluering af Inuuneritta II: Gennemført i 2017 [Midterm-evaluation of Inuuneritta II: Conducted in 2017]*.
- Ingemann, C., Beck, A., & Larsen, C. V. L. (2019). *Kortlægning af rygestoptilbud: Undersøgelse af borgernes adgang til rygestop i*



- kommuner og sundhedsvæsenet i Grønland [Overview of smoking cessation services: Study of citizens' access to smoking cessation in municipalities and healthcare in Greenland]. [https://www.sdu.dk/da/sif/Rapporter/2019/kortlaegning\\_af\\_rygestoptilbud](https://www.sdu.dk/da/sif/Rapporter/2019/kortlaegning_af_rygestoptilbud)
- Ingemann, C., Jensen, E., Olesen, I., Tjørnhøj-Thomsen, T., Kvernmo, S., & Larsen, C. V. L. (2022). Parents' perspectives on preparing for parenthood: A qualitative study on Greenland's universal parenting programme MANU 0–1 year. *BMC Pregnancy and Childbirth*, 22(1), 859. <https://doi.org/10.1186/s12884-022-05170-4>
- Ingemann, C., Kuhn, R. L., Kvernmo, S., Tjørnhøj-Thomsen, T., & Larsen, C. V. L. (2021). An in-depth implementation study of the Greenlandic parenting program MANU's initial stages of implementation. *International Journal of Circumpolar Health*, 80(1), 1938443. <https://doi.org/10.1080/22423982.2021.1938443>
- Ingemann, C., Olesen, I., Jensen, E., Tjørnhøj-Thomsen, T., Larsen, C. V. L., & Kvernmo, S. (2023). Parents' perspectives on the role of kin in child-rearing: A qualitative study on Greenland's universal parenting programme MANU. *International Journal of Circumpolar Health*, 82(1), 2225720. <https://doi.org/10.1080/22423982.2023.2225720>
- Ingemann, C., Regeer, B. J., & Larsen, C. V. L. (2018). Determinants of an integrated public health approach: The implementation process of Greenland's second public health program [journal article]. *BMC Public Health*, 18(1), 1353. <https://doi.org/10.1186/s12889-018-6253-4>
- Kumpfer, K. L., Alvarado, R., Smith, P., & Bellamy, N. (2002). Cultural sensitivity and adaptation in family-based prevention interventions. *Prevention Science*, 3(3), 241–246.
- Leeman, J., & Nilsen, P. (2020). Strategies. In P. Nilsen & S. A. Birken (Eds.), *Handbook on implementation science* (pp. 234–258). Edward Elgar Publishing.
- Maxwell, J. A. (2020). Why qualitative methods are necessary for generalization. *Qualitative Psychology*.
- McGill, E., Marks, D., Er, V., Penney, T., Petticrew, M., & Egan, M. (2020). Qualitative process evaluation from a complex systems perspective: A systematic review and framework for public health evaluators. *PLoS Medicine*, 17(11), e1003368.
- Mead, E. L., Gittelsohn, J., Roache, C., Corriveau, A., & Sharma, S. (2013). A community-based, environmental chronic disease prevention intervention to improve healthy eating psychosocial factors and behaviors in indigenous populations in the Canadian Arctic. *Health Education & Behavior*, 40(5), 592–602. <https://doi.org/10.1177/1090198112467793>
- Nilsen, P. (2015). Making sense of implementation theories, models and frameworks. *Implementation Science*, 10(1), 53.
- Olesen, I., Hansen, N. L., Ingemann, C., Lundblad, A., & Larsen, C. V. L. (2020). *Brugernes oplevelse af det grønlandske sundhedsvæsen: En pilotundersøgelse [Users' experience of the Greenlandic healthcare system: A pilot study]* (8778994969).
- Olesen, I., Hansen, N. L., & Larsen, C. V. L. (2022). *Evaluering af 'Tidlig Indsats overfor gravide familier' 2021: En kvalitativ undersøgelse af indsatsens fortsatte implementering og drift med fokus på lokal forankring og kulturel relevans i Grønland [Evaluation of the 'Early intervention for pregnant families' program 2021]*. [www.sdu/sif](http://www.sdu/sif)
- Palinkas, L. A., Aarons, G. A., Horwitz, S., Chamberlain, P., Hurlburt, M., & Landsverk, J. (2011). Mixed method designs in implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, 38, 44–53.
- Pérez, D., Van der Stuyft, P., Zabala, M. D. C., Castro, M., & Lefèvre, P. (2015). A modified theoretical framework to assess implementation fidelity of adaptive public health interventions. *Implementation Science*, 11(1), 1–11.
- Plsek, P. E., & Greenhalgh, T. (2001). Complexity science: The challenge of complexity in health care. *BMJ: British Medical Journal*, 323(7313), 625.
- Proctor, E. K., Powell, B. J., & McMillen, J. C. (2013). Implementation strategies: Recommendations for specifying and reporting. *Implementation Science*, 8(1), 1–11.
- Grønlands Statistik. (2021). *Grønland i tal 2021 [Greenland in numbers 2021]*. <http://www.stat.gl/dialog/main.asp?lang=da&theme=Greenland%20in%20Figures&sc=GF>
- Stirman, S. W., Baumann, A. A., & Miller, C. J. (2019). The FRAME: An expanded framework for reporting adaptations and modifications to evidence-based interventions. *Implementation Science*, 14(1), 1–10.
- Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*, 19(6), 349–357.
- von Thiele Schwarz, U., Aarons, G. A., & Hasson, H. (2019). The value equation: Three complementary propositions for reconciling fidelity and adaptation in evidence-based practice implementation. *BMC Health Services Research*, 19(1), 1–10.
- Wallerstein, N., Duran, B., Oetzel, J. G., & Minkler, M. (2018). *Community-based participatory research for health: Advancing social and health equity*. John Wiley & Sons.
- Wistoft, K. (2009). Sundhed og Pædagogik. In K. Wistoft (Ed.), *Sundhedspædagogik - Viden og værdier* (Vol. 1, pp. 26–69). Hans Reitzels Forlag.