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Developing an interprofessional learning and working culture to improve person-centred care in nursing homes: a realist action research protocol

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ABSTRACT

Introduction Healthcare is changing due to the ageing of the general population, complex care demands and growing attention to person-centred care. To deal with these changes and provide the best possible person-centred care, the different professionals in nursing homes should all collaborate intensively. However, most professionals work within the field of their own expertise and share very little knowledge, experiences and insights. A lack of an interprofessional learning and working culture also prevents professionals with different expertise from working and learning intensively together to achieve high-quality person-centred care. There is a gap of knowledge about how to develop such a culture. Our aim is to provide insights into what actions, in what context and to what extent can contribute to an impactful development of an interprofessional learning and working culture.

Methods and analysis The realist action research design will be applied. It consists of three iterative steps: plan, act and observe, and reflect. First, we will formulate the theory about interprofessional learning and working culture and measure this culture by means of interviews, focus groups and questionnaires. Second, we will apply the nine principles of Practice Development to coach professionals from six Dutch nursing homes to improve their interprofessional learning and working culture. Finally, we will evaluate the impact of the changed attitudes and skills on healthcare practice.

Ethics and dissemination Approval for the project was given by the Hogeschool van Arnhem en Nijmegen (HAN) Research Ethics Committee, the Netherlands, registration number EACO 164.12/19. All organisations, professionals and residents/family members will be informed verbally and by letter about the study and asked for informed consent. The results will be presented in peer-reviewed scientific journals, professional journals and at symposia and conferences. The findings will be transferred to an online toolbox and e-learning modules for graduated professionals and students.

Strengths and limitations of this study

► We expect that the development of an interprofessional learning and working culture will improve the quality of person-centred care for residents in nursing homes.

► This realist action research will provide a broad insight into what works for whom, in what context and how actions are or could be generated to create an interprofessional learning and working culture in nursing homes.

► This realist action research will make it possible to simultaneously develop the learning and working culture in nursing homes.

► This study is challenged by a broad spectrum of professionals in nursing homes and the existing subcultures among their different professions.

► Each nursing home and team will be unique, so the interprofessional teams will receive tailor-made coaching.

INTRODUCTION

Healthcare is changing drastically due to the ageing population and complex care demands. It is expected that the population size of the very old, age 85 and over, will increase by 15% in Europe over the next decades.[1] Half of these older people suffer from one or more chronic diseases. This multimorbidity results in poor quality of life and complex healthcare needs.[2] When it is no longer possible for primary healthcare professionals and family to care for the older population within their own home, the elderly are taken care for by healthcare professionals in nursing homes.[3] In addition, the vision on good quality of care has changed. Nowadays, the vision is focused on person-centred care[4] and it follows a holistic model that accounts for the preferences and needs of the residents. The residents and their families are becoming partners in their own care together with the professionals. The focus in healthcare provision is on shared decision-making, emotional well-being and person-centred goals.[5]

In Dutch nursing home practice, person-centred care is provided by nursing

professionals and allied/medical healthcare professionals, usually organised in monodisciplinary teams. The nursing teams are a mix of nurse aides, nurse assistants, licensed practical nurses, vocationally trained registered nurses and baccalaureate-educated registered nurses at European qualification framework levels 1–6.[6] The nursing teams collaborate with allied/medical healthcare professionals such as physiotherapists, dieticians, speech therapists and general or elderly care physicians (ECPs). Each professional has their own expertise and knowledge in the care for residents. In the Netherlands, ECPs are employed by nursing home organisations, which is unique compared with other countries.[7]

To provide the best person-centred care, all those different professionals need to collaborate intensively.[8] Although the professionals are jointly responsible for the care of residents, most professionals and teams work exclusively within the field of their own expertise and share little knowledge, experience and insights into nursing home practice.[9] There appears to be a lack of interprofessional collaboration. Interprofessional collaboration is defined as a collaboration in which professionals from different disciplines work and learn together intensively to achieve and manage high-quality person-centred care for a resident.[10] Interprofessional collaboration could be improved by establishing an interprofessional learning and working culture. This is a culture where two or more different healthcare professionals collaborate intensively and learn together within a healthcare organisation.[11] Interprofessional care teams share an integral vision, set person-centred goals and responsibilities that cross over into each other's fields, share experiences of successes and failures and learn together (life-long learning).[12–15]

A literature review[16] on intermediate care reported that interprofessional learning and working results in high standards of care for residents. This was exemplified by a decrease in suboptimal health processes, more motivated healthcare professionals, a reduction of staff turnover and an increase in the involvement of residents in their own care. However, there is a gap of knowledge concerning which actions contribute to the development of an interprofessional learning and working culture in nursing homes and to what extent. The main question in this study is: *Which actions in what context contribute to the interprofessional learning and working culture to improve person-centred care in nursing homes?*

Methods and analysis

Design
The study will be performed with interprofessional teams in nursing homes from 2020 till 2023. Realist action research will be applied in this study.[17] This design gives insight into which actions works, for whom in what respect, to what extent and how it works in the development of an interprofessional learning and working culture in nursing homes.[17 18] The action design includes a cocreation approach with the nursing homes, and data collection will contribute to the professional development of the participating healthcare professionals. This realist action research consists of three iterative steps: (1) *plan*, (2) *act and observe* and (3) *reflect*.[18]

Setting
Six Dutch nursing homes will participate. Nursing homes and teams will be approached via a call from an academic nursing home network Nijmegen (the Netherlands) to participate in this study. These nursing homes and teams will be selected based on their enthusiasm and the availability of staff to further develop an interprofessional learning and working culture. Only participating nursing homes who are members of an academic nursing home network aimed at improving the quality of care in nursing homes will be included in this study. Nursing homes in this network are specialised in care in psychogeriatrics, gerontopscyhiatrics, geriatric rehabilitation, Huntington disease, Korsakov and short stay/observation for older residents.

Participants
Each nursing home will participate with at least two or three interprofessional teams, this will give approximately 12 to 18 participating teams. Each team will be unique in the variety of nursing team members and allied/medical healthcare professionals. The nursing teams are a mix of nurse aides, nurse assistants, licensed practical nurses, vocationally trained registered nurses and baccalaureate-educated registered nurses at European qualification framework levels 1–6 and the allied/medical healthcare professionals are professionals such as physiotherapists, dieticians, speech therapists and general physicians or ECPs. The number of employees will vary between the participating interprofessional teams in this study.

Informed consent
After selection, the management and contact person for each nursing home will be verbally informed of this study and asked to give written informed consent for their nursing home and teams to participate in this study. After receiving informed consent, the researcher will start collecting data. Members of the research team will also plan meetings with the healthcare professionals to introduce them to the content of the study and discuss expectations. All participants in the interviews and questionnaires will be asked for informed consent.

Step 1—plan
Initial theory of interprofessional learning and working culture in nursing homes
Realist evaluation starts by formulating the theory.[17] We will work with a preliminary theory that will be further developed during the realist action research.[19] Our initial theory is presented as hypotheses under the headings context, mechanisms and outcomes (CMO). In a given context, specific actions will be applied to trigger mechanisms of an interprofessional learning and working culture with intended and unintended consequences,
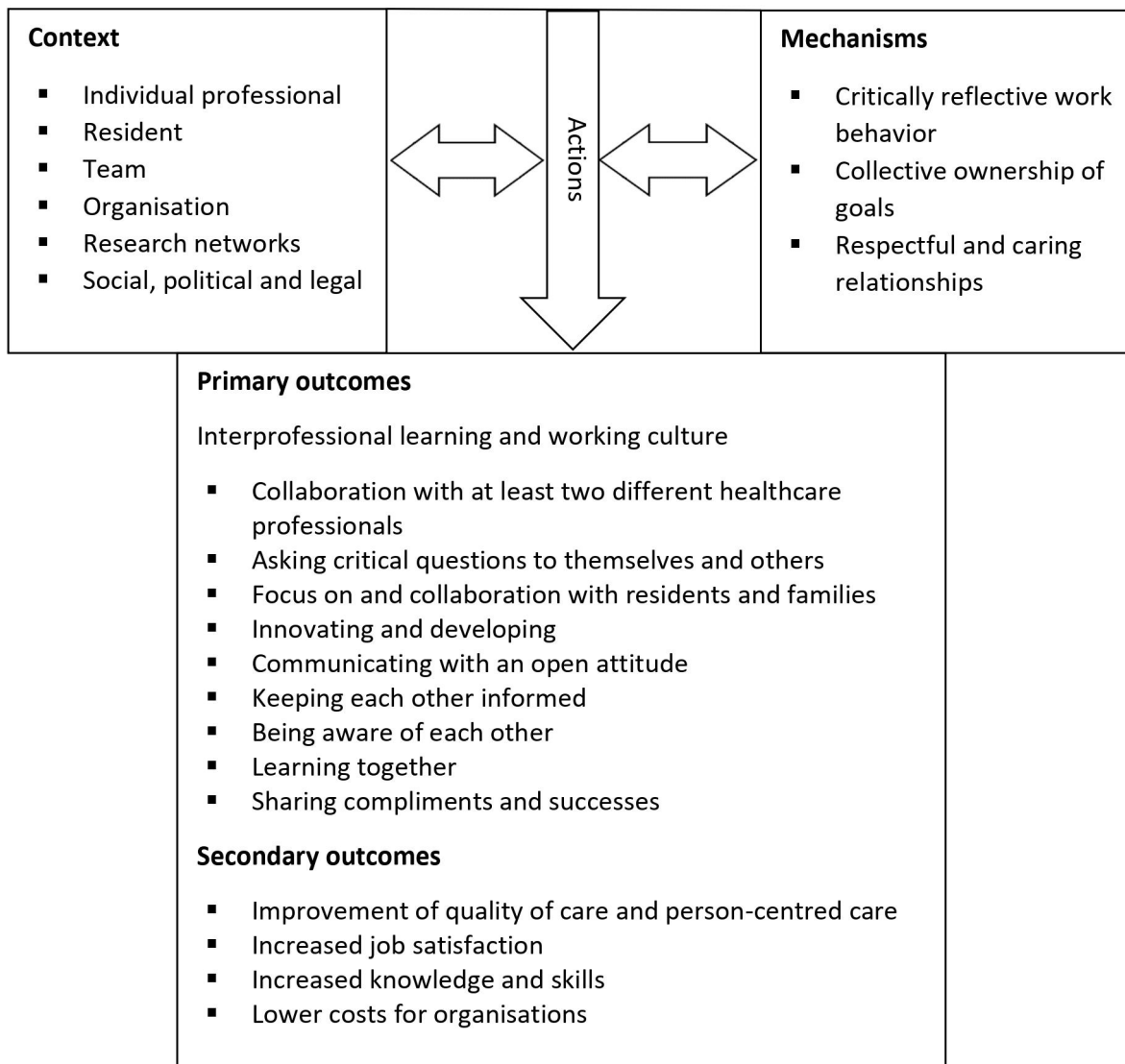
Context

- Individual professional
- Resident
- Team
- Organisation
- Research networks
- Social, political and legal

Actions

Mechanisms

- Critically reflective work behavior
- Collective ownership of goals
- Respectful and caring relationships

Primary outcomes

Interprofessional learning and working culture

- Collaboration with at least two different healthcare professionals
- Asking critical questions to themselves and others
- Focus on and collaboration with residents and families
- Innovating and developing
- Communicating with an open attitude
- Keeping each other informed
- Being aware of each other
- Learning together
- Sharing compliments and successes

Secondary outcomes

- Improvement of quality of care and person-centred care
- Increased job satisfaction
- Increased knowledge and skills
- Lower costs for organisations

Figure 1 Initial theory presented under the headings 'context', 'mechanisms' and 'outcomes'.

called the outcomes (figure 1). Our interests in this study are the (unknown) actions that trigger mechanisms in a specific context and results in the intended outcomes. The initial theory is based on literature about interprofessional collaboration and on an action research study we performed about the development of an evidence-based nursing culture in nursing teams in nursing homes.[9]

At this stage, we were not able to formulate CMO configurations. At the end of the study, we will formulate CMO configurations with the information collected about context, mechanism and outcome and supplement the theory with actions contribute to the development of an interprofessional learning and working culture in nursing homes.

Context

The context is the features of the conditions that are relevant to the operation of the mechanism.[19] The context consists of individual professional factors, team factors, patient-related factors, organisational factors, research network factors and social, political and legal factors.

Individual professional factors

Characteristics of the individual professionals influence the interprofessional collaboration. Important characteristics are professionals' attitudes, knowledge and skills related to healthcare (improvement) in general and specifically for collaboration and communication.[20–23] Each professional has their own professional identity, but this identity may be a barrier for interprofessional collaboration if it prevents them from having an open attitude towards the expertise of other professions.[14] Therefore, knowledge of and trust in the expertise of other professions is a prerequisite for collaboration.[24] This also includes trust in a professional's own abilities and the abilities of the residents.

Team factors

The nursing staff collaborate with allied and medical healthcare employees. While the nursing team is linked to one unit, the allied and medical healthcare team provides care in various units. The allied and medical healthcare professionals include ECPs, physiotherapists,

occupational therapists, speech therapists, dieticians and psychologists. The different educational levels between the nursing team (EQF 1–6) and the allied/medical healthcare team (EQF 4–8) and the fact that these teams work independently can hinder equal collaboration. Each team has its own learning and working culture and there is some form of multidisciplinary collaboration, for example, in multidisciplinary team meetings. These monodisciplinary cultures and multidisciplinary collaborations could provide the starting point for developing an interprofessional learning and working culture. This culture will be influenced by the level of interprofessional education the professionals have received. Interprofessional education can lead to standardisation of evidence-based practice (EBP) between members of different professions, and in turn ensure high-quality, evidence-based care.[25 26] However, moving from silos to synergy in interprofessional EBP requires a paradigm shift.[27]

The nursing teams contain a mix of nurses, most of whom are licensed practical nurses. The earlier action research showed that, although these licensed practical nurses had limited knowledge and skills in areas like EBP, this does not always hold them back from being a driving force in creating a learning culture. It was important for those teams to have a positive and safe team climate, enough and competent staff, low staff turnover and clearly defined and communicated roles, tasks and responsibilities.

The presence of students from different professions within the team contributes to an interprofessional learning and working culture.[28 29] Students ask critical questions, answer questions by sharing up-to-date knowledge from their education and perform interprofessional and EBP school assignments. In addition, students may provide access to university libraries.

Patient-related factors
In an interprofessional learning and working culture, the needs and preferences of residents are the starting point of care. Residents are also part of the interprofessional team.[30] In the Netherlands, there is a difference between rehabilitation units, units for residents with physical disabilities and special care units for dementia.[7] More and more nursing homes are also opening units for specific resident groups like residents with Huntington diseases. The extent to which residents can be involved in their own care should be aligned with their health status. Also, involving family members in the interprofessional team increases the facilitation in shared decision-making.[31]

Organisational factors
An organisational factor is the support teams receive from managers and directors in terms of time, resources and the process and content of interprofessional collaboration and learning. This support cannot be taken for granted and regular discussion between the teams and the managers and directors are important to create a basis for an interprofessional learning and working culture.

The organisational culture needs to embrace interprofessional collaboration and person-centred care, which can be translated into the organisation's vision.[32] The culture needs to be open and safe, for example, there should be opportunities to give feedback and discuss mistakes.

Research network factors
In the Netherlands, there are six academic elderly care research networks. These networks are collaborations between universities and nursing home organisations. Research networks can facilitate an interprofessional learning and working culture by producing research evidence that matches the needs of residents and professionals. Furthermore, they can make research evidence readily available by publishing and providing free access to the findings.[33]

Social, political and legal factors
In 2017, the Dutch National Health Care Institute published the Quality Framework for Nursing Home Care. This framework presents a vison on quality nursing care and tools to achieve this. It states that quality healthcare comprises a focus on person-centred care and support; living and well-being; safety and learning and improving. However, the framework does not provide much guidance on how to create an interprofessional learning and working culture.[34]

Mechanisms
Mechanisms describe what it is that brings about effect.[19] We distinguish three major categories within mechanisms for change: critically reflective work behaviour, collective ownership of goals and respectful and caring relationships.

Critically reflective work behaviour
Critically reflective work behaviour could improve and innovate daily practices at the individual professional, team and organisational level. Each healthcare professional has their own critically reflective work behaviour within their daily work that consists of individual and team dimensions. These dimensions are operationalised in eight different dimensions by van Woerkom and van Engen[15]:

► *Reflective working: improving performance and effectiveness by examining one's work experiences both in and after action.*
► *Learning from mistakes: being open about mistakes, not being afraid to make mistakes, not covering up mistakes or reacting defensively when confronted with mistakes and viewing mistakes as possibilities for oneself and others in the organisation to learn.*
► *Vision sharing: expressing one's vision, asking critical questions or making suggestions for a different way of working.*
► *Challenging groupthink: the competency to express disagreement, even when everyone else is in agreement.*
► *Asking for feedback: asking for feedback on one's performance, but also on opinions, underlying values or criteria about what is important at work.*

- *Experimentation: individual or team learning by trying out new ways of working.*
- *Sharing knowledge: not only being motivated by wanting to protect one's own position but also wanting to be part of something bigger than oneself.*
- *Career awareness: become aware of one's motives and the extent to which works satisfy those motives.*

Collective ownership of goals

Bronstein stated that collective ownership of goals means a *shared responsibility* in the entire process of reaching goals and includes a commitment to person-centred care with professionals from different disciplines and residents and their families being active in the process of reaching those goals.[35] The professionals are interdepended on the other to accomplish their goals and tasks.[35] The goals should be based on a *shared vision* on person-centred care. Wei *et al* reported that collective ownership of goals also means collective ownership of the failures and successes, which should be reflected on or celebrated, respectively.[36]

Respectful and caring relationships

Within interprofessional collaboration, it is important to respect each other. This means respecting all working professionals and their knowledge and expertise. Collaboration can be improved in caring relationships, where people accept each other, trust each other and are kind and compassionate towards each other. The publication of Wei *et al* reported that the quality of an individual professional's performance determines the success of the team, and that the whole is greater than the sum of the parts.[36]

Outcomes

Outcome patterns are comprised of the intended and unintended consequence of the intervention.[19] The outcomes are divided into primary and secondary outcomes

Primary outcome

The primary outcome is the establishment of an interprofessional learning and working culture in nursing homes. This is a culture where at least two healthcare professionals collaborate and learn together and where professionals innovate, ask themselves and others critical questions, communicate with an open attitude, keep each other informed, are aware of each other, share compliments and successes and collaborate with the residents and their families.[12–15]

Secondary outcomes

The interprofessional learning and working culture may further affect outcomes at the resident, care provider and organisational level. The quality of care is expected to improve for the residents in nursing homes when healthcare professionals collaborate with each other. For example, intensively working together could improve a suboptimal health process and working together with the resident could improve person-centred care.[16] At care

provider level, interprofessional collaboration may lead to increased job satisfaction and increased development of knowledge and skills.[36] At an organisational level, it may lower costs, although more research should be done about the effect on costs.[13]

Step 2—act and observe

This step is divided into four activities: (1) measuring current status, (2) coaching, (3) performing continuous observations and (4) measuring the developed culture.

Measuring current status

First, we will collect all the relevant information about the current status of the interprofessional learning and working culture in nursing homes. This will involve sending out two questionnaires to all the healthcare professionals. To gain more in-depth information and background, we will perform interviews with professionals, policymakers, managers and where possible with the residents and/or family members.

Questionnaires

Two questionnaires based on the interprofessional collaborations will be held online with LimeSurvey V.3.22.17. The link to the questionnaire will be distributed by the contact person in the nursing homes. We will use the Critically Reflective Work Behaviour Survey[37] and the Interprofessional Collaboration Measurement Scale.[38] These questionnaires have already been translated and tested in the Dutch language.

Interviews

At least five interviews will be held in each interprofessional team to create a comprehensive overview of the current interprofessional learning and working culture. The selection will be based on gaining a broad overview of the perspectives of all healthcare professionals representing the nursing team and allied/medical healthcare professionals. The development of the topic guide is based on relevant outcomes of the results from the earlier action research[9] and discussions with experts in interprofessional collaboration. The interview questions will be arranged as CMO configurations.[39] Topics in these interviews will include the current collaboration, learning culture, person-centred care and the ideal interprofessional learning and working culture. Table 1 gives an overview of the data collection methods.

After analysing the questionnaires and interviews, we will schedule a kick-off meeting in the participating interprofessional teams. We will interactively present and discuss the results on the current interprofessional learning and working culture. After the meeting, the interprofessional teams will start working on developing an interprofessional learning and working culture with support from coaches.

Coaching

Each interprofessional team will be supported by at least one internal coach who is a healthcare professional in

Table 1 Data collection

	Collection method	Data	Analysis
Interviews	Interviews with Nursing team members Allied/medical healthcare team members Family and/or residents Managers	Qualitative	Deductive analysis (Atlas Ti)
Questionnaires	*Critically Reflective Work Behaviour Survey* 47 questions for the nursing and allied/medical healthcare team members	Ordinal	Frequencies and differences between teams (SPSS)
	IPCMS 13 questions for the nursing team 13 questions for the allied/medical healthcare team	Ordinal	Frequencies and differences between teams (SPSS)
Observations	Observations, notes of meetings Observations, notes of internal coaches Observations, notes of external coaches Observations, notes of the researcher	Qualitative	Deductive analysis (Atlas Ti)
Focus groups	Focus groups with Nursing team members Allied/medical healthcare team members Family and/or residents Managers	Qualitative	Deductive analysis (Atlas Ti)

the interprofessional team and two external coaches who are members of the research team. The external coaches, experienced lecturers in nursing and allied/medical healthcare, will coach the internal coaches in the participating interprofessional teams. The coaches will work based on the nine principles of the Practice Development

Table 2 Overview of the nine practice development principles

1	Development of a person-centred culture The care for nursing home residents needs to be specified with various knowledge, scientific research, professional expertise and resident experiences.
2	Focus on micro level Focusing on the place where the care is delivered for the residents in nursing homes, for example on a specific department in a nursing home.
3	Workplace learning The focus is on learning-on-the-job and finding suitable actions to learn, reflect and evaluate the daily care to improve the quality of care.
4	Developing and performing knowledge The professionals need support to develop knowledge in practice and to perform, share and innovate the different ways of caring for residents.
5	Creativity combined with cognition Creativity can help healthcare professionals think beyond their own boundaries and see more possibilities to improve daily practice.
6	Involving the resident Residents, healthcare professionals and other parties should be involved (shared decision making). Different actions could be used to involve everyone.
7	Identifying specific actions It is important to identify specific actions for a specific context in line with everyone involved and create opportunities for everyone to introduce their ideas, desires and needs. It is unknown which specific actions are available and effective for the development of an interprofessional learning and working culture. Different factors influence the context and outcomes in the quality of care and person-centred care. To identify specific actions, we will perform a scoping review, hold interviews in daily practice and ask healthcare professionals to complete questionnaires.
8	Facilitation Each interprofessional team will be supported by an internal coach (member of the interprofessional team) and two external coaches from the research team. The two external coaches will coach the internal coaches in the nursing homes. The coaching will focus on the specific needs of the different participating interprofessional teams.
9	Involvement of everyone in the evaluation Everyone has their own ideas and developments in a specific context. The quality of care and person-centred care can be improved by focusing on evaluations and adjusting the approach when needed.

(PD) approach (table 2). PD has proven to provide a systematic approach to improve person-centred care.[40–42] The nine principles can be used to identify successful actions for the development of an interprofessional learning and working culture in the nursing homes. The coaches will work with a cyclic process at the team level, which means they start by identifying topics for action in the development of an interprofessional learning and working culture.[40] During this cyclic process, we will collect, analyse and evaluate knowledge, ideas, experiences of new actions or ideas from the professionals. Successful actions will be shared in meetings with the interprofessional teams and coaches from each nursing home.

Continuous observations
During the study period, we will observe and collect all relevant information about the actions for the development of an interprofessional learning and working culture in nursing homes. Findings, notes and logbooks from the internal and external coaches and the researcher will be collected and discussed in reflection meetings.

Measuring the developed culture
At the end of the study, a postmeasurement will be performed to measure the developed interprofessional learning and working culture in the nursing homes. In this measurement, we will use the same questionnaires described above and focus group meetings will be held with interprofessional team members to reflect on the development of the interprofessional learning and working culture. The aim of these focus groups will be to create insights into the created/chosen actions, the motives and which contribution these actions have on the interprofessional learning and working culture. Also, there will be attention on how the interprofessional learning culture can be maintained in the future. A final meeting will be scheduled in each nursing home with the healthcare professionals, residents, families, managers and policymakers. We will interactively present and discuss the results, evaluate the process and discuss how the culture can be continued by the interprofessional teams. The findings from these meetings will be extracted using audio records and notes from the researcher.

Participation in research
Some of the healthcare professionals within the interprofessional teams are involved in the research process. For example, in participation as internal coach. These coaches will be actively involved in the research meetings about the process of the study, meetings to share information and successes between all the nursing homes, they will be also involved in the decisions that must be made in the research process and at least to evaluate this process.

The other healthcare professionals in the interprofessional teams will also be actively involved during the entire study period. Research and action will take place at the same time. Data collection, data analysis and data exchange are fully integrated in daily practice. Active involvement of all healthcare professionals will start with a kick-off meeting in each participating team. In these meetings, we share information about the project, we share the results from the first measurements and we start the conversation about what is needed to create the interprofessional learning and working culture and to discuss about the first step in the development of this culture. Each team will select their own steps/actions in this first stage of the study. The research team does not select these steps and actions, the research team only coaches and observe this process.

STEP 3—REFLECT
The initial theory will be evaluated and revised. We will schedule several meetings with experts, the contact persons and the research team to discuss, reflect, evaluate and revise the theory (individual elements) and formulate CMO configurations, based on the analysis of the plan, act and observe step. We will supplement and integrate actions that trigger mechanisms in a specific context to contribute and develop an interprofessional learning and working culture in nursing homes. The configurations will be presented in peer-reviewed journals and shared in a digital environment (toolbox/handbook). This toolbox will be publicly available.

Analysis
To analyse the results about which actions contribute to an interprofessional learning and working culture in nursing homes, we will use retroductive theorising. We aim to hypothesise the underlying mechanisms and structures that cause the observed events that are experienced and perceived by the actors.[43] First, an exploration of findings from the questionnaires, interviews/focus groups and observations will be conducted about the deployed actions in this study. Second, we will discuss how these actions, based on the mechanisms and the contexts, are related to the development of an interprofessional learning and working culture. Third, we will understand why these actions works, for whom, in what context and to what extent? Also, we will search for theoretical perspectives about these explanations (abduction). At least, we will refine the initial theory with how, why and to what extent actions are influencing the mechanisms in a specific context on the interprofessional learning and working culture in nursing homes (outcome).

Questionnaires
The questionnaires will be analysed with IBM SPSS Statistics V.25. The demographic data will be presented in frequencies and descriptive data for each interprofessional team separately and in an overall overview. Comparisons will be performed in the pre and postmeasurements using statistical tests with a two-sided significance level $p < 0.05$. Differences between the nursing team

and allied/medical healthcare professionals will be tested with multiple level analysis.

Interviews/focus groups

Each interview and focus group will be audio-taped and summarised. These summaries will be thematically analysed in Atlas Ti. with a focus on the main themes interprofessional collaboration, interprofessional learning and person-centred care. Based on these summaries, we will describe an overall case report for each participating interprofessional team. Also, we will present a case report from all the participating interprofessional teams together. In each kick-off meeting, we will present the case reports to the contact persons and internal coaches in each interprofessional team. At the end of the study, we will perform focus group meetings. These meetings will also be presented in case reports and in the last meetings for each organisation.

Observations

The findings and observations from the external coaches, internal coaches and the researcher will be recorded as field notes. Also, the findings, observations and reflections will be collected from the different meetings with the coaches or contact persons and the reflection meetings of the research project team. The researcher will deductively analyse and code these notes using Atlas Ti. according to the principles of realist evaluation: context, mechanisms and outcomes. We will use these analyses to revise the initial theory with special attention to the actions needed for the development of an interprofessional learning and working culture.

Patient and public involvement

Patients and public are not involved in the design, or conduct, or reporting or dissemination plans of our research.

Ethics and dissemination

This study received ethical approval from the HAN Research Ethics Committee and in the Netherlands. The committee concluded that this study does not fall within the scope of the Medical Research Involving Human Subject Act (WMO), registration number EACO 164.12/19. All organisations, professionals and residents/family members will be informed about the study verbally and by letter and will be asked for informed consent.

At the end of the study, we will present our findings about the actions for the development of an interprofessional learning and working culture to improve person-centred care in nursing homes. These actions will be presented in a revised initial theory. The design of this dissemination of findings is an iterative process and will be carried out in cocreation with the participants, contact persons, research networks and the research team. The findings will be presented in peer-reviewed scientific journals and professional journals and will also be presented at symposia and conferences. Finally, findings will be translated into an online toolbox/handbook and

e-learning tools for both graduated professionals and bachelor students.

Our goal for this realist evaluation action study is to provide new insights into the actions needed to develop an interprofessional learning and working culture in nursing homes. The study will be conducted in six nursing homes in the Netherlands. Each nursing home has its own specific medical treatments and rehabilitation programmes. We believe that this broad spectrum of treatments and other focuses will mean the actions we identify will be applicable to other Dutch nursing homes, and also nursing homes in different countries.

DISCUSSION

Developing an interprofessional learning and working culture in nursing homes is complex, for example, because professions in nursing homes are usually organised in monodisciplinary teams. This means there are many different contextual factors such as work atmosphere, work relationships, staff empowerment, shared decision-making, quality improvements, expertise and language differences between healthcare professionals, leadership and time management.[4] The realist action design approach in this study makes it possible to simultaneously change a culture and address these contextual factors. The approach creates insights into not only which actions are available but also which ones work for whom, how in what specific context and circumstances and to what extent.[44]

We expect to encounter some difficulties in this study: a broad spectrum of professionals in nursing homes and existing cultures among the professionals, which will be unique to each team. Each professional and each team will have their own expertise, education level, values and norms. We will address this challenge by using the results of the measurements in step 2 to tailor the coaching to the interprofessional teams. We expect that this will help us align the coaching with the initial context for developing an interprofessional learning and working culture.

Furthermore, we only include nursing homes that are affiliated with an academic network. These nursing homes are unique in having a research infrastructure with an university, which could have influence on the existing interprofessional learning and working culture. We will include this in the reflection with participants during the study to find out what the influence is of being affiliated with an academic network on developing an interprofessional learning and working culture.

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