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Coproduction of healthcare services with immigrant patients – protocol of a scoping review

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Title:
Coproduction of healthcare services with immigrant patients – protocol of a scoping review

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ABSTRACT

Introduction

Immigrant patients are a heterogeneous population that tend to experience a wide range of barriers when accessing healthcare in their new host country. It is also questionable how standardized strategies such as patient centeredness and patient participation work on this diverse and complex patient group. The concept of coproduction recognizes that all services are coproduced and invites attention to the relationship and communication between patient and care provider. It might provide a new perspective on how to collaboratively create the best possible value for the individual patient. This paper outlines the protocol for a scoping review to identify and examine factors that influence coproduction of healthcare services by immigrants and care providers.

Methods and analysis

This scoping review will be conducted in accordance with the Joanna Briggs Methodology for scoping reviews. We will search the following electronic databases: PubMed, Scopus, Ovid EMBASE, EBSCO CINAHL, EBSCO PsycInfo, Cochrane Library, Web of Science and Google Scholar. Other non-peer reviewed literature will be identified through Open Grey, Conference Proceedings Index as well as through screening a range of national authorities and research organizations. Additionally, reference lists of the identified relevant articles will be searched. All types of literature will be included if these are concerned with the coproduction of healthcare or social services between immigrants and service providers, including their relationship, communication and collaboration. Eligible publications will be screened independently by two reviewers using a descriptive checklist developed for this scoping review.

Ethics and dissemination

This scoping review analyses secondary data and does not require ethical approval. The results will facilitate a better understanding of different factors influencing coproduction of health in healthcare between immigrant patients and care providers. Results will be presented at national and international conferences and seminars with relevant stakeholders and be published in a peer-reviewed journal.

KEYWORDS: Coproduction, immigrants, patient-provider relationship, cross-cultural communication, collaborative health

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STRENGTHS AND LIMITATIONS OF THE THIS STUDY

- The literature on social and healthcare service coproduction with immigrant citizens/patients has not been mapped previously. The findings will provide valuable insights on the factors influencing the coproductive relationship between immigrant patients and care providers.
- The broad search strategy goes beyond the term 'coproduction', also capturing coproduction elements in other similar concepts dealing with the immigrant-provider relationship (e.g. patient/community involvement, cross-cultural communication), with special attention to fostering the capability for coproduction.
- The scoping review will be conducted in accordance with well-established guidelines and two reviewers will carry out screening and full-text reading independently.
- Given the novelty of the term coproduction, we created a broad search strategy that explicitly includes adjoining concepts.
- Due to the novelty of the term and the therefore broad search strategy, we run the risk of receiving a wide spectrum of results, which can be challenging to overview.

INTRODUCTION

Immigrants often experience barriers when accessing healthcare service in their host country. These barriers, often caused by language and cultural differences, lack of social support or challenges related to transportation or employment put them at risk for co-producing and receiving suboptimal care.[1 2] However, suboptimal care can also occur because of unintentional provider behavior. Even care providers who are motivated to be non-prejudiced may stereotype immigrant patients because they struggle with the great diversity of the patient group.[3-5] Immigrant patients do not only differ from the native population, but they also form themselves as a heterogeneous group. They differ by ethnicity, culture, religion or by their reason for migration.[6] This complex mixture of cultures and backgrounds makes it even more challenging for them to develop and to be capable of coproducing a service, to fit in, and to get their health and welfare care needs met.[7]

Based on the growing belief that involving patients can improve the quality of care,[8 9] healthcare systems have over the last decade been infused with innovative strategies for shared decision-making, patient centeredness and participation.[10 11] These approaches might be beneficial for the health literate patient with a clear medical history, but can be challenging for patients as diverse and

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complex as immigrants.[12 13] Yet, within patient centeredness strategies, the patient still depends to a certain degree on the care provider[14] which might limit their full effectiveness to improve patient outcomes.[15] It has been suggested that such, predefined and standardized approaches to the provision of healthcare services resemble the logic for making a product, rather than a service. As such, this confusion may contribute to the slow progress of truly patient-centered services.[16] This suggests that a fresh frame for exploring the relationship between patient and care provider may offer new insights into how healthcare services might create the best possible value contribution for the health of all patients, and especially marginalized groups such as immigrant patients.

Coproduction of healthcare service

The concept of coproduction has great potential to improve healthcare services using a new perspective. Originally established in the 1970s by political economist Elinor Ostrom,[17] coproduction has only recently been introduced to healthcare but is quickly gaining momentum, both in practice and research.[16 18 19] According to Batalden, coproduction in healthcare is '*…the interdependent work of patients (and relatives) and health care professionals to design, create, develop, deliver, assess, and improve relationships and actions that contribute to the health of individuals and populations*' (Seminar on Coproduction of Healthcare Services, September 21 2016, Middelfart DK).[20] In coproduction, the core of healthcare service provision lies in the relationship between patient and care provider. The underlying aim of coproduced service is to contribute to good health for all. This implies sharing values and interdependence between patient and professional. It involves letting patient and family priorities influence the civil discourse in, the planning, the implementation of healthcare services.[16]

Coproduction is present in any encounter between patient and professional intent on developing and creating a service. The degree and form of coproduction can vary across time, setting, and circumstance. In addition, patients and care providers have widely disparate coproduction dispositions and capacities.[16] Despite the overall optimism around the concept, there are also critical voices emphasizing that coproduction can not only empower but also exploit patients. Constant cost-constraint pressure and a reluctance to release power are playing a role in the providers disability to coproduce.[21] Moreover, service providers need to be able to facilitate, create relationships, be adaptable as well as act as a link between citizen and system in order for coproduction to happen.[22 23] Furthermore, some patients with the greatest need for a service may

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tend to coproduce the least.[24] Other investigations show that if coproduction strategies are designed to lift the underlying constraints of disadvantaged service users (e.g. lack of knowledge and/or resources), they may increase both efficiency and equity in the service delivery.[25]

In recent years, a multitude of coproduction efforts between the public sector and the civil society via community-based interventions have been established in Denmark.[26-28] Yet, there is still little experience with the concept in healthcare service in general, and more specifically with immigrant citizens. This calls for further investigations on coproduction under varying conditions and testing if the experiences collected from community-based interventions for immigrant citizens can be transferred to the healthcare sector. Limits on the capabilities and on who can coproduce and why are not clear and need to be explored further. The focus on immigrant can render valuable insights on how to improve the quality of their care and eventually contribute to better health. Namely, there is a lack of knowledge on both individual (immigrant patient and professional) factors and contextual (external) factors influencing coproduction of healthcare services in a cross-cultural healthcare setting.

To understand the needs of new and diverse groups of patients and to create health services that can meet these needs in an interdependent patient-centered way invites a new approach. "Coproduction" may open new perspectives and possibilities to improve the contribution of healthcare services to health. Therefore, this article outlines a protocol for a scoping review on the current knowledge on coproduction of service when immigrants and service providers work together in the healthcare and community sector.

STUDY DESIGN AND METHODS

The scoping review methodology is particularly useful for systematically examining broad areas of evidence from disparate and heterogeneous sources and identify key concepts, theories, evidence or research gaps.[29 30] Thus, the scoping review method fits our purpose of providing a broad overview of the existing published and un-published literature on coproduction of services between immigrants and service providers. Unlike systematic reviews, scoping reviews do not focus on the effectiveness of a specific intervention but are used to map key concepts of a certain research area and/or to clarify the conceptual boundaries of a topic. Moreover, a scoping review allows for ongoing reflections, potentially considering emerging evidence and ongoing adjustments to the

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search strategy. The scoping review will be conducted according to the methodology proposed by the Joanna Briggs Institute,[31] which is based on the five-stage framework laid out by Arksey & O´Malley [29] and Levac et al.[30]

Stage 1: Identifying the research question

The following research questions will guide the development of the protocol, facilitate the literature search and provide a structure for the scoping review report:

- What are **individual factors** influencing coproduction of healthcare or community services between immigrants and care providers?
- What are **context-related factors** influencing coproduction of healthcare or community services between immigrants and care providers?

Healthcare services are coproduced by immigrants and service providers and can be influenced by a variety of individual and context-related factors. Individual factors can influence the capability to coproduce and can relate to a member of the dyadic, interdependent relationship. Patient-related factors include sociodemographic backgrounds, previous expectations of and experiences with the healthcare system or their capacities and attitudes toward involvement. Care provider-related factors on the other side can for instance relate to the care providers´ preparedness and their understanding of immigrant health need, as well as their attitudes or behaviors toward the immigrant as a patient. Context-related factors can be either of objective or subjective nature.[32] They can include tangible (objective) factors such as the organization of an integrated healthcare system, clinical guidelines or even the clinical surrounding. In contrast, the subjective context focuses on how patients and care providers interpret and attach significance to what is happening around them and how that influences their own behavior and interaction with one another.

The literature search will cover two potential arenas of coproduction: 1) between immigrant patients and care providers in the healthcare sector and 2) between immigrant citizens and social service providers the community sector. Denmark has in recent years seen an increasing interest in developing new ways of establishing collaborations between citizens and service providers in the production and delivery of welfare benefits.[26] Therefore, the search includes the social/community sector because we expect to be able to apply these findings into the healthcare context.

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Stage 2: Identifying relevant studies

We will conduct a systematic search of peer-reviewed literature, including all study designs and methodology. We will also search the non-peer-reviewed literature to identify non-indexed reports, government documents, guidelines, policy papers, dissertations and conference abstracts.

Our preliminary search strategy was developed in consultation with a medical librarian at the University of Southern Denmark (see appendix 1). Elements of coproduction can also be found in other concepts such as patient/citizen involvement and participation, shared-decision making, patient/citizen centeredness and empowerment. Therefore, these concepts will be included in the search strategy of literature from health and social sciences, namely sociology, anthropology and psychology. We will use a three-step search strategy. The first step is an initial limited search in the PubMed and Scopus databases relevant to the topic. This step has already been undertaken on August 16th 2017 and yielded 1018 hits in the PubMed and 159 in the Scopus databases. In the second step, we will use all identified keywords and index terms from the initial search and translate them in Ovid EMBASE, EBSCO CINAHL, EBSCO PsycINFO, Cochrane Library, Web of Science and Google Scholar databases. In the third step, we will search the reference lists of the identified relevant articles for additional studies. Other non-peer-reviewed literature will be identified from sources such as Open Grey and Conference Proceedings Index. We will also screen publications by national authorities, research institutions and relevant interest organizations in Denmark and other countries such as United Kingdom or Australia that already have collected comprehensive experiences with the coproduction concept.[24 33]

Full-text publications in English, Scandinavian languages (Danish, Swedish, Norwegian) and German will be considered for inclusion, as the authors can read these languages. The search will be restricted to publications from 2007 onwards when patient-centered care was beginning to take root and appear in medical literature.[34] We will use EndNote to remove duplicates and store bibliographic information.

Stage 3: Study selection

The PCC (participant, concept, context) mnemonic suggested by the Joanna Briggs Institute (JBI)[31] provides a transparent guide for reviewers and readers and will direct the decision process on which sources to include in the scoping review.

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(P) Participants

In the scoping review we focus on the coproductive relationship between immigrant patients/citizens and care/service providers. Therefore, both sides of this relationship will be included as participants. The search will include literature on immigrants of any origin, age and sex. The International Organisation for Migration (IOM) defines an immigrant as a foreign-born person who has moved to another country for the purpose of settlement.[35] This definition includes economic migrants, temporary foreign workers, foreign students, documented and undocumented migrants, refugees and asylum seekers. Further, we will include literature on descendants (neither of the parents is born in the country they live in) because they resemble first generation immigrants.[36] [37] On the service provider side, we will include all types of health professionals and social service providers that are delivering personal services for immigrants. This can include service providers from the public/state or the voluntary/non-profit sectors that work on social, health or educational activities for immigrants on community level.

(C) Concept

The scoping review will examine the factors that influence patients' and care providers' ability to coproduce healthcare services. The core of coproduction of health services focuses on the relationship and actions that arise from the interaction between patients and care providers.[16] Therefore, we will include publications that focus on the coproductive work and relationships of immigrant citizens or patients and care or social service providers. This includes face-to-face encounters between immigrants and service providers, e.g., in consultations as well as group activities, e.g. shared medical appointments, in which immigrants cocreate strategies with their peers. We will also include publications on coproduction through networks of immigrants, their relatives and service providers that cocreate new organisational structures or improvement tools.

Additionally, we will include publications on the relationship, communication or collaboration between immigrants and service providers because they are strongly related to the concept of coproduction. We will use a broad definition of communication including verbal or non-verbal behavior, interaction, or interpersonal knowledge, skills and habits.

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(C) Context

We will consider all settings for coproduction by immigrants and care/service providers in health and social care. Examples in primary healthcare are general practitioners, specialists, pharmacies, home care, nursing homes and community nurses. In the secondary sector, public, private, somatic, and psychiatric hospitals will be included. All types of healthcare services available for patients in ambulatory care, day care, long-term care and social care will also be included. We will also include community settings in which individual immigrant citizens or communities actively participate in delivering social services. The definition of social services used here is: 1) They are *personal* services, rather than services related to the production of goods; 2) They fulfill personal *social* rather than physical or intellectual needs; 3) They focus on *social roles* rather than bodies, intellects or minds, thus distinguishing them from health, education and psychological assistance; 4) Social services are performed by persons on persons in direct *social interactions*.[38]

Two reviewers (RKC and NA) will screen titles and abstracts against the PCC criteria and mark them

'include', 'exclude', 'uncertain' or 'relevant for other purposes'. A summary of all inclusion and exclusion criteria in regards to form and content is shown in table 1. If no abstract is available, the entire publication will be read. To ensure reliability between the reviewers, the inclusion/exclusion criteria will be pilot-tested on a random sample of citations. The reviewers will discuss uncertainties or differences. When in doubt, a third reviewer (vPC) will be consulted for the final decision. The same two reviewers will conduct the full-text screening, which again will be pilot-tested on a random sample of articles. No formal quality assessment will be performed.

Stage 4: Charting the data

One reviewer (RKC) will extract the data using a descriptive charting table designed for this review. The charting table will be pre-tested in collaboration with the second reviewer (NA) on a minimum of five articles to ensure consistency of data extraction. At this stage, the charting table may be further refined if necessary. The following key information will be extracted:

- Author(s)
- Year of publication
- Publication type (e.g. original research, report)
- Study design

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- Population characteristic (e.g. patient, citizen, ethnicity, sex, age, morbidity)
- Provider characteristic (e.g. profession)
- Concept described (e.g. coproduction, patient-involvement)
- Context (e.g. country, healthcare setting, community setting)
- Intervention (e.g. goal setting)
- Key findings (e.g. factors influencing the coproductive relationship between immigrants and service providers)

Inclusion criteria are:
- **Languages**: Published in English, Danish, Swedish, Norwegian or German languages. - **Date**: Published from 2007 and onwards. - **Peer-reviewed literature**: Any study design and methodology. - **Non peer-reviewed literature**: Reports, government documents, guidelines, policy papers, dissertations and conference abstracts. - **Population**: Publications that target the relationship between immigrants (patients or citizens) and service providers (care providers or social service providers). - **Types of Services**: Publications that include knowledge on coproduced services (healthcare, social care) by immigrants and service providers. This can include knowledge regarding communication (verbal, non-verbal, interaction, interpersonal skills), collaborations as well as co-planning and co-executing of services between immigrants and service providers. - **Setting**: Publications that focus on healthcare or community settings.
Exclusion criteria are:
- Publications that describe the consequences of a suboptimal patient/citizen-provider relationship, which goes beyond the scope of this review. - Publications that do not provide a coproduction perspective of the service delivery to immigrants, i.e. solely provide a one-sided description of how to improve service delivery for immigrant patients.

Table 1 – Inclusion/exclusion criteria

Stage 5: Collating, summarizing and reporting the results

The scoping review will give an overview of a relatively broad field of literature including a wide range of different publications types. Therefore, special attention will be paid to how the large

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amount of data will be presented. A guideline specifically for reporting scoping reviews is currently being developed by a group of researchers at the University of Toronto, but is has not been published yet.[39] We will make efforts to secure use of this new guidance, but failing its availability, we will use a modified version of the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA).[40] PRISMA items not appropriate for the purpose of this scoping review (e.g. risk of bias) will be left out. The extracted data will be presented in tabular or diagrammatic form to give an overview of the amount, type and distribution of included literature.

IMPLICATIONS

Findings of this study will provide an innovative perspective on the coproduced services by immigrant patients and care providers. This study represents the first step of a research program to develop a model of coproduction of healthcare services for immigrant patients. Such a model will be useful in designing and evaluating patient-centered healthcare services for immigrant patients. A timeline for the entire scoping review process can be seen in table 2.

	2018								
	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb
Writing protocol									
Search									
Screening									
Analysis									
Reporting									

Table 2 - Timeline for protocol and scoping review

ETHICS AND DISSEMINATION

This scoping review will include exclusively secondary data, gathered through searching the literature in electronic databases and other online sources. Thus, no ethics committee approval is required for this study. This protocol will support a systematic and transparent process of preparing and conducting the entire review process. The results will be disseminated through presentations at national and international clinical conferences, on relevant seminars and networks on coproduction and/or immigrant health and will be published in a peer-reviewed journal.

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Contributors: RKC drafted the protocol. NA, BP and SM helped conceptualize the research, and reviewed and edited the protocol. vPC obtained funding, conceptualized the research and reviewed and edited the protocol.

Competing interest: None

Data sharing: No additional data available

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Ethics approval: The scoping review will undertake an analysis of secondary data and does not require ethical approval.

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Appendix 1 – Search strategy in PubMed, August 16th 2017

	Search terms	Results
1	Coproduction OR co-production OR coproduce OR co-produce OR coproducing OR co-producing	1474
2	Cocreation OR co-creation OR cocreate OR co-create OR cocreating OR co-creating	320
3	Codesign OR co-design OR codesigning OR co-designing	246
4	Cooperation OR co-operation OR cooperate OR co-operate OR cooperating OR co-operating	62062
5	Collaboration OR collaborate OR collaborating	64249
6	Co-care	10
7	“public participation” OR “public involvement” OR “public empowerment” OR “public activation”	1239
8	“community participation” OR “community involvement” OR “community empowerment” OR “community activation”	4504
9	“patient participation” OR “patient involvement” OR “patient empowerment” OR “patient activation”	4864
10	“Relationship-centered care” OR “relationship-centred care”	139
11	“patient-centered care” OR “patient-centred care” OR “patient-focused care”	4758
12	“patient-centered nursing” OR “patient-centred nursing”	74
13	“patient-centered communication” OR “patient-centred communication”	455
14	Patient-centeredness OR patient-centredness	1032
15	“shared decision-making”	4731
16	“cross-cultural communication”	164
17	“patient-provider relation” OR “patient-provider relations” OR “patient-provider relationship” OR “patient-provider relationships” OR “patient-provider communication” OR “patient-provider communications” OR “patient-provider interaction” OR “patient-provider interactions”	1578
18	“patient-physician relation” OR “patient-physician relations” OR “patient-physician relationship” OR “patient-physician relationships” OR “patient-physician communication” OR “patient-physician communications” OR “patient-physician interaction” OR “patient-physician interactions”	2007
19	“patient-doctor relation” OR “patient-doctor relations” OR “patient-doctor relationship” OR “patient-doctor relationships” OR “patient-doctor communication” OR “patient-doctor communications” OR “patient-doctor interaction” OR “patient-doctor interactions”	743
20	“patient-nurse relation” OR “patient-nurse relations” OR “patient-nurse relationship” OR “patient-nurse relationships” OR “patient-nurse communication” OR “patient-nurse communications” OR “patient-nurse interaction” OR “patient-nurse interactions”	148
21	“patient-hospital relation” OR “patient-hospital relations” OR “patient-hospital relationship” OR “patient-hospital relationships” OR “patient-hospital communication” OR “patient-hospital communications” OR “patient-hospital interaction” OR “patient-hospital interactions”	9
22	(((((“Patient Participation”[Mesh]) OR “Community Participation”[Mesh]) OR “Patient-Centered Care”[Mesh]) OR “Decision Making”[Mesh]) OR	268936

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	"Hospital-Patient Relations"[Mesh]) OR "Physician-Patient Relations"[Mesh]	
23	Or/1-22	402703
24	Migrant OR migrants	15667
25	Immigrant OR immigrants	21054
26	“ethnic minority” OR “ethnic minorities” OR “ethnic minority group” OR “ethnic minority groups”	8571
27	Refugee OR refugees	8095
28	“asylum seeker” OR “asylum seekers”	1075
29	Descendant OR descendants	4736
30	“undocumented immigrant” OR “undocumented immigrants” OR “illegal immigrant” OR “illegal immigrants”	448
31	((("Emigrants and Immigrants"[Mesh]) OR "Transients and Migrants"[Mesh]) OR "Refugees"[Mesh]) OR "Undocumented Immigrants"[Mesh]	25136
32	OR/24-31	60882
33	“healthcare service” OR “healthcare services” OR “health care service” OR “health care services”	18690
34	“social service” OR “social services”	9253
35	“community service” OR “community services”	3558
36	“community welfare”	69
37	“social welfare”	3692
38	“delivery of healthcare” OR “delivery of health care”	11032
39	“Integrated delivery of healthcare” OR “Integrated delivery of health care”	15
40	((("Health Services"[Mesh]) OR ("Delivery of Health Care"[Mesh] OR "Delivery of Health Care, Integrated"[Mesh])) OR "Social Welfare"[Mesh])	2412683
41	OR/33-37	2425575
42	23 AND 32 AND 38	1725
43	23 AND 32 AND 38 only: English, Swedish, Norwegian, Danish, German	1640
44	**From 2007 onwards**	**1018**

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Co-production of healthcare services with ethnic minority patients: protocol of a scoping review

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Co-production of healthcare services with ethnic minority patients: protocol of a scoping review

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ABSTRACT

Introduction

Ethnic minority patients often meet barriers to patient centred healthcare in their new host countries. Given the heterogeneity of patients from ethnic minorities, established strategies for patient centredness might not work in their case. The concept of co-production provides a new perspective on how to collaboratively create the highest possible value for both the patient and the healthcare system. The concept acknowledges that all services are co-produced and directs attention to the relationship between patient and care provider. Co-production is still a new concept in health care and its use with vulnerable groups of patients requires further study. This protocol outlines a scoping review to be conducted on the current knowledge on co-production of service by immigrants and their service providers in the medical healthcare sector.

Methods and analysis

We will use Joanna Brigg's methodology for scoping reviews. The data will stem from the following databases: PubMed, Scopus, Ovid EMBASE, EBSCO CINAHL, EBSCO PsycINFO, Cochrane Library, and Web of Science. We will also screen the websites of national authorities and research organisations for publications and review the literature lists of the identified articles for relevant references. We will include all types of literature on co-production of healthcare or social services by ethnic minorities and service providers, including their relationship with one another, communication and collaboration. Two reviewers will independently screen eligible publications and extract data using a checklist developed for this scoping review.

Ethics and dissemination

The results of the study will provide an innovative perspective on the co-production of value in healthcare services by patients from ethnic minorities and care providers. We will present the results at national and international conferences, seminars, and other events with relevant stakeholders and immigrant patients, and publish them in a peer reviewed journal.

KEYWORDS: Co-production, ethnic minorities, patient-provider relationship, cross-cultural communication, collaborative health

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STRENGTHS AND LIMITATIONS OF THIS STUDY

- The literature on co-production with ethnic minority citizens/patients has not been mapped previously. The review will provide valuable insights into the current knowledge on co-production of service between immigrants and their service providers in both the medical healthcare and the community service sectors.
- Our broad search strategy goes beyond the term "co-production," capturing aspects of co-production in similar concepts of relationships between patients from ethnic minorities and providers, for example patient/community involvement and cross-cultural communication.
- We will pay special attention to factors fostering capability for co-production.
- The scoping review will be conducted in accordance with established guidelines. Two reviewers will independently screen the literature and read the full-text.
- The broad search strategy incurs the risk of a wide spectrum of disparate results, which can be challenging to overview.

INTRODUCTION

Ethnic minorities often experience barriers when accessing healthcare services in primary and secondary medical facilities in their host country. These barriers, often caused by language and cultural differences, lack of social support, or challenges related to transportation or employment put them at risk for co-producing and receiving suboptimal care.[1 2] However, suboptimal care can also occur because of unintentional provider behaviour. Even care providers who are motivated to be non-prejudiced may stereotype ethnic minority patients because they struggle with the great diversity of the patient group.[3-5] Ethnic minority patients do not only differ from the main population; they are also a heterogeneous group themselves. They differ by ethnicity, culture, religion, and their reason for migration.[6] This complex mixture of cultures and backgrounds makes it even more challenging for them to develop and to be capable of co-producing a service, to fit in, and to have their health and welfare care needs met.[7]

Based on the growing belief that involving patients can improve the quality of care,[8 9] over the past decade healthcare systems have been infused with innovative strategies for shared decision-making, and patient centredness and participation.[10 11] These approaches might be beneficial for patients who actively participate in the medical consultation by expressing their concerns, asking questions,

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and stating their expectations. However, other patient groups (including, for instance, ethnic minority patients) are not only less inclined to take an active role in the consultation; they also may be less likely to have their involvement supported by the healthcare professional.[12] Thus, even within strategies of patient centredness, the patient still depends to a certain degree on the care provider,[13] which might limit their full effectiveness to improve patient outcomes.[14] It has been suggested that such predefined and standardised approaches to the provision of healthcare services resemble the logic for making a product, rather than a service. Therefore, this confusion may contribute to the slow progress of services that are truly patient centred.[15] This suggests that a fresh frame for exploring the relationship between patient and care provider may offer new insights into how healthcare services can create the best possible value contribution for the health of all patients, and especially marginalised groups such as ethnic minority patients.

Co-production of healthcare services

The concept of co-production, as a new perspective, has great potential to improve medical healthcare services. Originally established in the 1970s by political economist Elinor Ostrom,[16] co-production has only recently been introduced to healthcare but is quickly gaining momentum, both in practice and in research.[15 17 18] According to Batalden,[19] co-production in healthcare is "the interdependent work of patients (and relatives) and health care professionals to design, create, develop, deliver, assess, and improve relationships and actions that contribute to the health of individuals and populations." Thus, the core of healthcare service provision lies in the individual relationship between patient and care provider - a relationship in which the co-producers both contribute resources and benefit from the value created by the service provided. The value created for patients comprises, for instance, their satisfaction with the service, the impact of the service upon their well-being and the extent to which it meets their social, health, or economic needs. Service co-production does also create "public value" by contributing to societal objectives or well-being.[20]

Based on Osborne´s conceptualisation of the topic,[20] our understanding of co-production comprises (1) the "pure" co-production, in which the user unavoidably co-produces the service experience and outcomes with a service provider; and (2) how the service experience integrates with the user's overall life experience. In medical healthcare, this includes both the direct encounter between patient and care provider and how the experience of the co-produced service integrates with the

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patient's overall life experience. This implies sharing values and interdependence between patient and professional. It involves letting patient and family priorities influence the civil discourse when planning the implementation of healthcare services.[15]

Co-production is present in any encounter between patient and professional intent on developing and creating a service. The degree and form of co-production can vary across time, setting, and circumstance. In addition, patients and care providers have widely disparate co-production dispositions and capacities.[15] Despite the overall optimism around the concept, there are also critical voices emphasising that co-production can not only empower but also exploit patients. Constant cost-constraint pressures and a reluctance to release power are playing a role in the providers' inability to co-produce.[21] Moreover, service providers need to be able to facilitate and create relationships, be adaptable, and act as a link between citizen and system in order for co-production to happen.[22 23] Moreover, disadvantaged citizens (eg, ethnic minorities) may be constrained by a lack of knowledge or other resources necessary to contribute to and benefit from a co-production process. However, if co-production strategies are designed to lift the underlying constraints of disadvantaged service users (eg, lack of knowledge or resources), they may increase both efficiency and equity in the service delivery.[24]

In recent years, a multitude of co-production efforts between the public sector and the civil society via community based interventions have been established in Denmark.[25-27] Yet, there is still little experience with the concept in medical healthcare services. This calls for further investigations on co-production under varying conditions and testing whether the experiences collected from community based interventions can be transferred to the medical healthcare sector. The additional focus on ethnic minorities can render valuable insights on how to improve the quality of their care and eventually contribute to better health. To that end, this article outlines a protocol for a scoping review on the current knowledge on co-production of service between immigrants and their service providers in the medical healthcare and community sector.

STUDY DESIGN AND METHODS

The scoping review methodology is particularly useful for systematically examining broad areas of evidence from disparate and heterogeneous sources and identifying key concepts, theories, evidence or research gaps.[28 29] Thus, the scoping review method fits our purpose of providing a broad

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overview of the existing published and unpublished literature on co-production of services between ethnic minorities and service providers. Unlike systematic reviews, scoping reviews do not focus on the effectiveness of a specific intervention but are used to map key concepts of a certain research area or to clarify the conceptual boundaries of a topic. Moreover, a scoping review allows for ongoing reflections, potentially considering emerging evidence and ongoing adjustments to the search strategy. The scoping review will be conducted according to the methodology proposed by the Joanna Briggs Institute,[30] which is based on the five stage framework laid out by Arksey & O'Malley [28] and Levac et al.[29]

Stage 1: Identifying the research question

The following research questions will guide the development of the protocol, facilitate the literature search, and provide a structure for the scoping review report:

- What are the individual and context related factors influencing the co-production of value in healthcare between ethnic minority patients and their care providers?
- How do these individual and context related factors affect the co-production process between ethnic minority patients and their care providers?
- What learnings on co-production of value for ethnic minority citizens in the community sector may be applied to co-production in medical healthcare?

Co-produced healthcare services by ethnic minorities and service providers can be influenced by a variety of individual and context related factors. Individual factors can influence the capability to co-produce and can relate to a member of the dyadic, interdependent relationship. Patient related factors include sociodemographic backgrounds, previous expectations of and experiences with the healthcare system or their capacities, and attitudes toward involvement. Care provider-related factors on the other side can for instance relate to the care providers' preparedness and their understanding of ethnic minority health needs, as well as their attitudes or behaviours towards the ethnic minority patient. Context related factors can be of either an objective or a subjective nature.[31] They can include tangible (objective) factors such as the organisation of an integrated healthcare system, clinical guidelines, or even the clinical surrounding. In contrast, the subjective context focuses on how patients and care providers interpret and attach significance to what is happening around them and how that influences their own behaviour and interaction with one another.

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The literature search will cover two potential arenas of co-production: (1) between ethnic minority patients and care providers in the healthcare sector and (2) between ethnic minority citizens and social service providers in the community sector. In recent years, Denmark has seen an increasing interest in developing new ways of establishing collaborations between citizens and service providers in the production and delivery of welfare benefits.[25] In contrast to the medical healthcare sector, co-production in the community sector is usually of a voluntary nature.[20] However, we decided to include the community sector to investigate whether these findings can be applied within a healthcare context after all.

Stage 2: Identifying relevant studies

Our preliminary search strategy was developed in consultation with a medical librarian at the University of Southern Denmark (see Appendix 1). Elements of co-production can also be found in other concepts such as patient/citizen involvement and participation, shared decision making, and patient/citizen centredness and empowerment. Therefore, these concepts will be included in the search strategy of literature from the health and social sciences, namely sociology, anthropology, and psychology.

Peer-reviewed literature

We will conduct a systematic search of peer reviewed literature using a three step search strategy in licensed journal databases, including all study designs and methodology. The first step is an initial limited search in the PubMed and Scopus databases relevant to the topic. This step has already been undertaken, on 16 August 2017, and yielded 1018 hits in the PubMed and 159 in the Scopus databases. In the second step, we will use all identified keywords and index terms from the initial search and translate them in Ovid EMBASE, EBSCO CINAHL, EBSCO PsycINFO, Cochrane Library, and Web of Science databases. In the third step, we will search the reference lists of the identified relevant articles for additional studies. Full text publications in English, Scandinavian languages (Danish, Swedish, and Norwegian), and German will be considered for inclusion, because the authors can read these languages. No geographic limits will be used for the peer reviewed literature search, since we expect the principal concept of co-production to be comparable across countries. The search will be restricted to publications from 2007 onwards when patient

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centred care was beginning to take root and appear in medical literature.[32] We will use EndNote to remove duplicates and store bibliographic information.

Non-peer reviewed literature

We will also screen non peer-reviewed literature to identify non-indexed reports, government documents, guidelines, policy papers, and dissertations. We will search websites of Danish national authorities, research institutions and other relevant interest organisations. To gather comparable publications from another national setting – without moving beyond the feasible scope of this review – we will also search corresponding websites in the United Kingdom. This country was chosen because of its comprehensive experiences with the co-production concept in healthcare.[33]

Stage 3: Study selection

The PCC (participant, concept, context) mnemonic suggested by the Joanna Briggs Institute[30] provides a transparent guide for reviewers and readers and will direct the decision process on which sources to include in the scoping review.

(P) Participants

In the scoping review we will focus on the co-productive relationship between ethnic minority patients/citizens and care/service providers. Therefore, both sides of this relationship will be included as participants. The search will include literature on ethnic minorities of any origin, age, or sex. We define ethnic minorities as a group within a community whose national or cultural traditions differ from those of the main population.[34] This includes immigrants, their descendants, and groups of people who were born in a certain country but still count as a minority (such as Hispanics, Native Americans, and Aborigines). Immigrants are defined as foreign born people who have moved to another country for the purpose of settlement.[35] This definition includes economic migrants, temporary foreign workers, foreign students, documented and undocumented migrants, refugees, and asylum seekers. Literature on descendants (ie, neither of their parents was born in the country they live in) will be included because they resemble first generation immigrants.[36 37] On the service provider side, we will include all types of health professionals and social service providers that are delivering personal services for ethnic minorities. This can include service providers from the public/state or the voluntary/non-profit sectors that work on social, health, or educational activities for ethnic minorities on a community level. Literature with researchers as participants on

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the provider side will be accepted, if the participating ethnic minority target group has been co-producing participatory research instead of merely being consulted on a certain research topic.

(C) Concept

In this scoping review we will analyse co-production as it happens in the joint activity between ethnic minorities and their service providers. This can happen either through ongoing personal interaction in which both parties perform most of the task together (eg, in a patient – physician consultation) or through processes in which citizens act separately for most of the time and only deal with the service provider at particular points, when the gains of their efforts are combined (eg, in between consultation appointments).[38] This includes face-to-face encounters in consultations as well as group activities such as shared medical appointments, in which ethnic minorities co-produce strategies with their peers. Additionally, we will include publications on the relationship, communication, or collaboration between ethnic minorities and service providers because they are strongly related to the concept of co-production and might entail co-productive elements. We will use a broad definition of communication, including verbal or non-verbal behaviour, interaction, and interpersonal knowledge, skills, and habits. Publications on community based participatory research will be included if ethnic minorities (1) have been actively co-producing the research and (2) benefit from the value created by the research project. Framing the concept of co-production this way will allow us to include literature with an intention to co-produce service between ethnic minorities and service providers, as well as publications with an unexpected, but retrospectively recognised, co-produced outcome.

(C) Context

We will consider all settings for co-production by ethnic minorities and care/service providers in health and social care. Examples in primary healthcare are general practitioners, specialists, pharmacies, home care, nursing homes, and community nurses. In the secondary sector, public, private, somatic, and psychiatric hospitals will be included. All types of healthcare services available for patients in ambulatory care, day care, long term care and social care will also be included. We will also include community settings in which individual ethnic minority citizens or communities actively participate in delivering social services. The definition of social services used here is (1) they are *personal* services, rather than services related to the production of goods; (2)

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they fulfill personal *social* rather than physical or intellectual needs; (3) they focus on *social roles* rather than bodies, intellects or minds, thus distinguishing them from health, education and psychological assistance; and (4) they are performed person to person in direct *social interactions*.[39]

Two reviewers (RKC and NA) will screen titles and abstracts against the PCC criteria and mark them
"include," "exclude," "uncertain," or "relevant for other purposes." A summary of all inclusion and exclusion criteria in regard to form and content is shown in Table 1. To ensure reliability between the reviewers, the inclusion/exclusion criteria will be pilot tested on a random sample of citations. If no abstract can be identified, the publication will be dismissed. The reviewers will discuss uncertainties or differences. When in doubt, a third reviewer (vPC) will be consulted for the final decision. The same two reviewers will conduct the full text screening, which again will be pilot tested on a random sample of articles. No formal quality assessment will be performed.

Stage 4: Charting the data

One reviewer (RKC) will extract the data using a descriptive charting table designed for this review. The charting table will be pretested in collaboration with the second reviewer (NA) on a minimum of five articles to ensure consistency of data extraction. At this stage, the charting table may be further refined if necessary. The following key information will be extracted:

- author(s)
- year of publication
- publication type (eg, original research, report)
- study design
- population characteristic (eg, patient, citizen, ethnicity, sex, age, morbidity)
- provider characteristic (eg, profession)
- concept described (eg, co-production, patient involvement)
- context (eg, country, healthcare setting, community setting)
- intervention (eg, goal setting)
- key findings (eg, factors influencing the co-productive relationship between ethnic minorities and service providers.)

Table 1

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Inclusion/exclusion criteria

Inclusion criteria are:
- **languages**: published in English, Danish, Swedish, Norwegian, or German languages - **date**: published from 2007 and onwards - **peer reviewed literature**: any study design and methodology - **non peer reviewed literature**: reports, government documents, guidelines, policy papers, dissertations, and conference abstracts - **population**: patients or citizens whose ethnicity and/or cultural traditions differ from those of the main population who co-produce services with healthcare/social providers or researchers - **co-production as method**: publications focusing on the joint creation of value for the co-producers through, for instance, the development, implementation, or evaluation of interventions, self-management plans, services, tools, or knowledge - **co-production as outcome**: publications that report on planned/unexpected co-produced outputs and outcomes, even if not initially planned - the co-producers both contribute resources and benefit from the value created by the service provided - publications that report on concrete improvement strategies for explicit collaboration or co-production between ethnic minorities and service providers - **setting**: co-production in medical healthcare or community settings
Exclusion criteria are:
- publications on how to involve and increase ethnic minority participation in research, trials, or screening interventions (unless they were directly involved in the development and design of these interventions and directly benefited from the value created through the research) - publications focusing on co-production involving only more resourceful representatives of the ethnic minority target group - publications focusing purely on consulting ethnic minorities or service providers on their perspectives and opinions - publications focusing on the recruitment/education of voluntary community (health) workers - publications focusing only on the consequences of suboptimal ethnic minority – provider relationships

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- publications on co-production on organisation level (eg, between hospital departments, with private organizations)

Stage 5: Collating, summarising and reporting the results

The scoping review will give an overview of a relatively broad field of literature, including a wide range of different publication types. Therefore, special attention will be paid to how the large amount of data will be presented. A guideline specifically for reporting scoping reviews is currently being developed by a group of researchers at the University of Toronto, but it has not yet been published.[40] We will make efforts to secure use of this new guidance, but failing its availability, we will use a modified version of the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA).[41] PRISMA items not appropriate for the purpose of this scoping review (eg, risk of bias) will be left out. The extracted data will be presented in tabular or diagrammatic form to give an overview of the amount, type, and distribution of included literature.

The plan for data presentation and discussion is based on the three research questions for this scoping review. We expect to outline individual and context-related factors that influence co-production processes between ethnic minorities and their service providers. In addition, we will analyse how the identified factors affect the respective co-production process. Despite the contextual and setting related differences between a community and a healthcare setting, we want to investigate whether the mechanisms behind co-production in a community setting can be used for learning and as a source of inspiration for the medical healthcare sector.

IMPLICATIONS

Interest in understanding the needs of new and diverse groups of patients and creating health services that can meet these needs in an interdependent, patient centred way invites a new approach. "Co-production" may open up new perspectives and possibilities to improve the contribution of healthcare services to health. Findings of this study will provide an innovative perspective on the co-produced services by ethnic minority patients and care providers in Danish medical healthcare. This study represents the first step of a research programme designed to develop a model of co-

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production of healthcare services with ethnic minority patients. Such a model will be based on principles that can be useful in designing and evaluating patient centred healthcare services for ethnic minority patient groups, not only in a Danish context but potentially in any setting where ethnic minority patients or other minority patient groups meet their care providers. A timeline for the entire scoping review process is presented in Table 2.

Table 2

Timeline for protocol and scoping review

	2017							2018	
	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb
Writing protocol									
Search									
Screening									
Analysis									
Reporting									

ETHICS AND DISSEMINATION

This scoping review will include exclusively secondary data, gathered through searching the literature in electronic databases and other online sources. Thus, no ethics committee approval is required for this study. The protocol will support a systematic and transparent process of preparing and conducting the entire review process. The results will be disseminated through presentations at national and international clinical conferences, and in relevant seminars and networks on co-production and/or immigrant health to relevant stakeholders and immigrant patient groups, and will be published in a peer reviewed journal.

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Contributors: RKC drafted the protocol. NA, BP and SM helped conceptualize the research, and reviewed and edited the protocol. vPC obtained funding, conceptualized the research and reviewed and edited the protocol.

Competing interest: None

Data sharing: No additional data available

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Ethics approval: The scoping review will undertake an analysis of secondary data and does not require ethical approval.

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Appendix 1 – Search strategy in PubMed, August 16th 2017

	Search terms	Results
1	Coproduction OR co-production OR coproduce OR co-produce OR coproducing OR co-producing	1474
2	Cocreation OR co-creation OR cocreate OR co-create OR cocreating OR co-creating	320
3	Codesign OR co-design OR codesigning OR co-designing	246
4	Cooperation OR co-operation OR cooperate OR co-operate OR cooperating OR co-operating	62062
5	Collaboration OR collaborate OR collaborating	64249
6	Co-care	10
7	“public participation” OR “public involvement” OR “public empowerment” OR “public activation”	1239
8	“community participation” OR “community involvement” OR “community empowerment” OR “community activation”	4504
9	“patient participation” OR “patient involvement” OR “patient empowerment” OR “patient activation”	4864
10	“Relationship-centered care” OR “relationship-centred care”	139
11	“patient-centered care” OR “patient-centred care” OR “patient-focused care”	4758
12	“patient-centered nursing” OR “patient-centred nursing”	74
13	“patient-centered communication” OR “patient-centred communication”	455
14	Patient-centeredness OR patient-centredness	1032
15	“shared decision-making”	4731
16	“cross-cultural communication”	164
17	“patient-provider relation” OR “patient-provider relations” OR “patient-provider relationship” OR “patient-provider relationships” OR “patient-provider communication” OR “patient-provider communications” OR “patient-provider interaction” OR “patient-provider interactions”	1578
18	“patient-physician relation” OR “patient-physician relations” OR “patient-physician relationship” OR “patient-physician relationships” OR “patient-physician communication” OR “patient-physician communications” OR “patient-physician interaction” OR “patient-physician interactions”	2007
19	“patient-doctor relation” OR “patient-doctor relations” OR “patient-doctor relationship” OR “patient-doctor relationships” OR “patient-doctor communication” OR “patient-doctor communications” OR “patient-doctor interaction” OR “patient-doctor interactions”	743
20	“patient-nurse relation” OR “patient-nurse relations” OR “patient-nurse relationship” OR “patient-nurse relationships” OR “patient-nurse communication” OR “patient-nurse communications” OR “patient-nurse interaction” OR “patient-nurse interactions”	148
21	“patient-hospital relation” OR “patient-hospital relations” OR “patient-hospital relationship” OR “patient-hospital relationships” OR “patient-hospital communication” OR “patient-hospital communications” OR “patient-hospital interaction” OR “patient-hospital interactions”	9
22	(((((“Patient Participation”[Mesh]) OR “Community Participation”[Mesh]) OR “Patient-Centered Care”[Mesh]) OR “Decision Making”[Mesh]) OR	268936

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	"Hospital-Patient Relations"[Mesh]) OR "Physician-Patient Relations"[Mesh]	
23	Or/1-22	402703
24	Migrant OR migrants	15667
25	Immigrant OR immigrants	21054
26	“ethnic minority” OR “ethnic minorities” OR “ethnic minority group” OR “ethnic minority groups”	8571
27	Refugee OR refugees	8095
28	“asylum seeker” OR “asylum seekers”	1075
29	Descendant OR descendants	4736
30	“undocumented immigrant” OR “undocumented immigrants” OR “illegal immigrant” OR “illegal immigrants”	448
31	((("Emigrants and Immigrants"[Mesh]) OR "Transients and Migrants"[Mesh]) OR "Refugees"[Mesh]) OR "Undocumented Immigrants"[Mesh]	25136
32	OR/24-31	60882
33	“healthcare service” OR “healthcare services” OR “health care service” OR “health care services”	18690
34	“social service” OR “social services”	9253
35	“community service” OR “community services”	3558
36	“community welfare”	69
37	“social welfare”	3692
38	“delivery of healthcare” OR “delivery of health care”	11032
39	“Integrated delivery of healthcare” OR “Integrated delivery of health care”	15
40	((("Health Services"[Mesh]) OR ("Delivery of Health Care"[Mesh] OR "Delivery of Health Care, Integrated"[Mesh])) OR "Social Welfare"[Mesh])	2412683
41	OR/33-37	2425575
42	23 AND 32 AND 38	1725
43	23 AND 32 AND 38 only: English, Swedish, Norwegian, Danish, German	1640
44	**From 2007 onwards**	**1018**

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Co-production of healthcare services with immigrant patients: protocol of a scoping review

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ABSTRACT

Introduction

Immigrant patients often meet barriers to patient centred healthcare in their new host countries. Given the heterogeneity of patients from ethnic minorities, established strategies for patient centredness might not work in their case. The concept of co-production provides a new perspective on how to collaboratively create the highest possible value for both the patient and the healthcare system. The concept acknowledges that all services are co-produced and directs attention to the relationship between patient and care provider. Co-production is still a new concept in health care and its use with vulnerable groups of patients requires further study. This protocol outlines a scoping review to be conducted on the current knowledge on co-production of service by immigrants and their service providers in the healthcare sector.

Methods and analysis

We will use Joanna Brigg's methodology for scoping reviews. The data will stem from the following databases: PubMed, Scopus, Ovid EMBASE, EBSCO CINAHL, EBSCO PsycINFO, Cochrane Library, and Web of Science. We will also screen the websites of national authorities and research organisations for publications and review the literature lists of the identified articles for relevant references. We will include all types of literature on co-production of healthcare or social services by immigrants and service providers, including their relationship with one another, communication and collaboration. Two reviewers will independently screen eligible publications and extract data using a checklist developed for this scoping review.

Ethics and dissemination

The results of the study will provide an innovative perspective on the co-production of value in healthcare services by immigrant patients and care providers. We will present the results at national and international conferences, seminars, and other events with relevant stakeholders and immigrant patients, and publish them in a peer reviewed journal.

KEYWORDS: Co-production, immigrants, patient-provider relationship, cross-cultural communication, collaborative health

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STRENGTHS AND LIMITATIONS OF THIS STUDY

- The literature on co-production with immigrant citizens/patients has not been mapped previously. The review will provide valuable insights into the current knowledge on co-production of service between immigrants and their service providers in both the healthcare and the social/community service sectors.
- Our broad search strategy goes beyond the term "co-production," capturing aspects of co-production in similar concepts of relationships between patients from ethnic minorities and providers, for example patient/community involvement and cross-cultural communication.
- We will pay special attention to factors fostering capability for co-production.
- The scoping review will be conducted in accordance with established guidelines. Two reviewers will independently screen the literature and read the full-text.
- The broad search strategy incurs the risk of a wide spectrum of disparate results, which can be challenging to overview.

INTRODUCTION

Immigrants often experience barriers when accessing healthcare services in primary and secondary medical facilities in their host country. These barriers, often caused by language and cultural differences, lack of social support, or challenges related to transportation or employment put them at risk for co-producing and receiving suboptimal care.[1 2] However, suboptimal care can also occur because of unintentional provider behaviour. Even care providers who are motivated to be non-prejudiced may stereotype immigrant patients because they struggle with the great diversity of the patient group.[3-5] Immigrant patients do not only differ from the main population; they are also a heterogeneous group themselves. They differ by ethnicity, culture, religion, and their reason for migration.[6] This complex mixture of cultures and backgrounds makes it even more challenging for them to develop and to be capable of co-producing a service, to fit in, and to have their health and welfare care needs met.[7]

Based on the growing belief that involving patients can improve the quality of care,[8 9] over the past decade healthcare systems have been infused with innovative strategies for shared decision-making, and patient centredness and participation.[10 11] These approaches might be beneficial for patients who actively participate in the medical consultation by expressing their concerns, asking questions,

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and stating their expectations. However, other patient groups (including, for instance, immigrant patients) are not only less inclined to take an active role in the consultation; they also may be less likely to have their involvement supported by the healthcare professional.[12] Thus, even within strategies of patient centredness, the patient still depends to a certain degree on the care provider,[13] which might limit their full effectiveness to improve patient outcomes.[14] It has been suggested that such predefined and standardised approaches to the provision of healthcare services resemble the logic for making a product, rather than a service. Therefore, this confusion may contribute to the slow progress of services that are truly patient centred.[15] This suggests that a fresh frame for exploring the relationship between patient and care provider may offer new insights into how healthcare services can create the best possible value contribution for the health of all patients, and especially marginalised groups such as immigrant patients.

Co-production of healthcare services

The concept of co-production, as a new perspective, has great potential to improve healthcare service delivery. Originally established in the 1970s by political economist Elinor Ostrom,[16] co-production has only recently been introduced to healthcare but is quickly gaining momentum, both in practice and in research.[15 17 18] According to Batalden,[19] co-production in healthcare is "the interdependent work of patients (and relatives) and health care professionals to design, create, develop, deliver, assess, and improve relationships and actions that contribute to the health of individuals and populations." Thus, the core of healthcare service provision lies in the individual relationship between patient and care provider - a relationship in which the co-producers both contribute resources and benefit from the value created by the service provided. The value created for patients comprises, for instance, their satisfaction with the service, the impact of the service upon their well-being and the extent to which it meets their social, health, or economic needs. Service co-production does also create "public value" by contributing to societal objectives or well-being.[20]

Based on Osborne´s conceptualisation of the topic,[20] our understanding of co-production comprises (1) the "pure" co-production, in which the user unavoidably co-produces the service experience and outcomes with a service provider; and (2) how the service experience integrates with the user's overall life experience. In healthcare, this includes both the direct encounter between patient and care provider and how the experience of the co-produced service integrates with the patient's

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overall life experience. This implies sharing values and interdependence between patient and professional. It involves letting patient and family priorities influence the civil discourse when planning the implementation of healthcare services.[15]

Co-production is present in any encounter between patient and professional intent on developing and creating a service. The degree and form of co-production can vary across time, setting, and circumstance. In addition, patients and care providers have widely disparate co-production dispositions and capacities.[15] Despite the overall optimism around the concept, there are also critical voices emphasising that co-production can not only empower but also exploit patients. Constant cost-constraint pressures and a reluctance to release power are playing a role in the providers' inability to co-produce.[21] Moreover, service providers need to be able to facilitate and create relationships, be adaptable, and act as a link between citizen and system in order for co-production to happen.[22 23] Moreover, disadvantaged citizens (eg, immigrants) may be constrained by a lack of knowledge or other resources necessary to contribute to and benefit from a co-production process. However, if co-production strategies are designed to lift the underlying constraints of disadvantaged service users (eg, lack of knowledge or resources), they may increase both efficiency and equity in the service delivery.[24]

In recent years, a multitude of co-production efforts between the public sector and the civil society via community based interventions have been established in Denmark.[25-27] Yet, there is still little experience with the concept in healthcare services. This calls for further investigations on co-production under varying conditions and testing whether the experiences collected from community based interventions can be transferred to the healthcare sector. The additional focus on immigrants can render valuable insights on how to improve the quality of their care and eventually contribute to better health. To that end, this article outlines a protocol for a scoping review on the current knowledge on co-production of service between immigrants and their service providers in the healthcare and social/community sector.

STUDY DESIGN AND METHODS

The scoping review methodology is particularly useful for systematically examining broad areas of evidence from disparate and heterogeneous sources and identifying key concepts, theories, evidence or research gaps.[28 29] Thus, the scoping review method fits our purpose of providing a broad

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overview of the existing published and unpublished literature on co-production of services between immigrants and service providers. Unlike systematic reviews, scoping reviews do not focus on the effectiveness of a specific intervention but are used to map key concepts of a certain research area or to clarify the conceptual boundaries of a topic. Moreover, a scoping review allows for ongoing reflections, potentially considering emerging evidence and ongoing adjustments to the search strategy. The scoping review will be conducted according to the methodology proposed by the Joanna Briggs Institute,[30] which is based on the five stage framework laid out by Arksey & O'Malley [28] and Levac et al.[29]

Stage 1: Identifying the research question

The following research questions will guide the development of the protocol, facilitate the literature search, and provide a structure for the scoping review report:

- What are the individual and context related factors influencing the co-production of value in healthcare between immigrant patients and their care providers?
- How do these individual and context related factors affect the co-production process between immigrant patients and their care providers?
- What learnings on co-production of value for immigrant citizens in the community sector may be applied to co-production in healthcare?

Co-produced healthcare services by immigrants and service providers can be influenced by a variety of individual and context related factors. Individual factors can influence the capability to co-produce and can relate to a member of the dyadic, interdependent relationship. Patient related factors include sociodemographic backgrounds, previous expectations of and experiences with the healthcare system or their capacities, and attitudes toward involvement. Care provider-related factors on the other side can for instance relate to the care providers' preparedness and their understanding of immigrant health needs, as well as their attitudes or behaviours towards the immigrant patient. Context related factors can be of either an objective or a subjective nature.[31] They can include tangible (objective) factors such as the organisation of an integrated healthcare system, clinical guidelines, or even the clinical surrounding. In contrast, the subjective context focuses on how patients and care providers interpret and attach significance to what is happening around them and how that influences their own behaviour and interaction with one another.

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The literature search will cover two potential arenas of co-production: (1) between immigrant patients and care providers in the healthcare sector and (2) between immigrant citizens and social service providers in the community sector. In recent years, Denmark has seen an increasing interest in developing new ways of establishing collaborations between citizens and service providers in the production and delivery of welfare benefits.[25] In healthcare, co-production is usually of a involuntary nature because patients have to co-produce if they want better health. On the community level, co-production is more of a conscious and voluntary act and is for instance concerned with how to empower citizens or improve overall service delivery.[20] However, we decided to include the community sector to investigate whether we can learn from co-production experiences and see if these findings can be applied within a healthcare context.

Stage 2: Identifying relevant studies

Our preliminary search strategy was developed in consultation with a medical librarian at the University of Southern Denmark (see Appendix 1). Elements of co-production can also be found in other concepts such as patient/citizen involvement and participation, shared decision making, and patient/citizen centredness and empowerment. Therefore, these concepts will be included in the search strategy of literature from the health and social sciences, namely sociology, anthropology, and psychology.

Peer-reviewed literature

We will conduct a systematic search of peer reviewed literature using a three step search strategy in licensed journal databases, including all study designs and methodology. The first step is an initial limited search in the PubMed and Scopus databases relevant to the topic. This step has already been undertaken, on 16 August 2017, and yielded 1018 hits in the PubMed and 159 in the Scopus databases. In the second step, we will use all identified keywords and index terms from the initial search and translate them in Ovid EMBASE, EBSCO CINAHL, EBSCO PsycINFO, Cochrane Library, and Web of Science databases. In the third step, we will search the reference lists of the identified relevant articles for additional studies. Full text publications in English, Scandinavian languages (Danish, Swedish, and Norwegian), and German will be considered for inclusion, because the authors can read these languages. No geographic limits will be used for the peer reviewed literature search, since we expect the principal concept of co-production to be comparable across countries. The search will be restricted to publications from 2007 onwards when patient

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centred care was beginning to take root and appear in medical literature.[32] We will use EndNote to remove duplicates and store bibliographic information.

Non-peer reviewed literature

We will also screen non peer-reviewed literature to identify non-indexed reports, government documents, guidelines, policy papers, and dissertations. We will search websites of Danish national authorities, research institutions and other relevant interest organisations. To gather comparable publications from another national setting – without moving beyond the feasible scope of this review – we will also search corresponding websites in the United Kingdom. This country was chosen because of its comprehensive experiences with the co-production concept in healthcare.[33]

Stage 3: Study selection

The PCC (participant, concept, context) mnemonic suggested by the Joanna Briggs Institute[30] provides a transparent guide for reviewers and readers and will direct the decision process on which sources to include in the scoping review.

(P) Participants

In the scoping review we will focus on the co-productive relationship between immigrant patients/citizens and care/service providers. Therefore, both sides of this relationship will be included as participants. The search will include literature on immigrants of any origin, age, or sex. Immigrants are defined as foreign born people who have moved to another country for the purpose of settlement.[34] This definition includes economic migrants, temporary foreign workers, foreign students, documented and undocumented migrants, refugees, and asylum seekers. We will also include literature on descendants (ie, neither of the parents was born in the country they live in) because they tend to resemble first generation immigrants when it comes to morbidity and self-perceived health.[35 36] To get a more inclusive view of the evidence on the patient/citizen target group, we decided also to include ethnic minorities in the search. Searching only for immigrants might result in too narrow findings and useful insights relevant for immigrants can be embedded in publications on ethnic minorities. We define ethnic minorities as a group within a community whose national or cultural traditions differ from those of the main population.[37] This includes immigrants, their descendants, and groups of people who were born in a certain country but still count as a minority (such as Hispanics, Native Americans, and Aborigines). On the service

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provider side, we will include all types of health professionals and social service providers that are delivering personal services for ethnic minorities. This can include service providers from the public/state or the voluntary/non-profit sectors that work on social, health, or educational activities for ethnic minorities on a community level. Literature with researchers as participants on the provider side will be accepted, if the participating ethnic minority target group has been co-producing participatory research instead of merely being consulted on a certain research topic.

(C) Concept

In this scoping review we will analyse co-production as it happens in the joint activity between immigrants and their service providers. This can happen either through ongoing personal interaction in which both parties perform most of the task together (eg, in a patient – physician consultation) or through processes in which citizens act separately for most of the time and only deal with the service provider at particular points, when the gains of their efforts are combined (eg, in between consultation appointments).[38] This includes face-to-face encounters in consultations as well as group activities such as shared medical appointments, in which immigrants co-produce strategies with their peers. Additionally, we will include publications on the relationship, communication, or collaboration between immigrants and service providers because they are strongly related to the concept of co-production and might entail co-productive elements. We will use a broad definition of communication, including verbal or non-verbal behaviour, interaction, and interpersonal knowledge, skills, and habits. Publications on community based participatory research will be included if immigrants (1) have been actively co-producing the research and (2) benefit from the value created by the research project. Framing the concept of co-production this way will allow us to include literature with an intention to co-produce service between immigrants and service providers, as well as publications with an unexpected, but retrospectively recognised, co-produced outcome.

(C) Context

We will include two different arenas in which co-production by immigrants and care/service providers can occur: in healthcare and community settings. By healthcare, we mean the primary and secondary healthcare sector. Examples in primary healthcare are general practitioners, specialists, pharmacies, home care, nursing homes, and community nurses. In the secondary

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healthcare sector, public, private, somatic, and psychiatric hospitals will be included. All types of healthcare services available for patients in ambulatory care, day care, long term care and social care will also be included. The second arena includes community settings in which individual immigrant citizens or communities actively participate in delivering social services. The definition of social services used here is (1) they are *personal* services, rather than services related to the production of goods; (2) they fulfill personal *social* rather than physical or intellectual needs; (3) they focus on *social roles* rather than bodies, intellects or minds, thus distinguishing them from health, education and psychological assistance; and (4) they are performed person to person in direct *social interactions*.[39]

Citations will be screened by using the web-based software Covidence (www.covidence.org). Covidence also facilitates the creation of a PRISMA flow diagram once the screening process is completed. Two reviewers (RKC and NA) will screen titles and abstracts against the PCC criteria and mark them "include," "exclude," "uncertain," or "relevant for other purposes." A summary of all inclusion and exclusion criteria in regard to form and content is shown in Table 1. To ensure reliability between the reviewers, the inclusion/exclusion criteria will be pilot tested on a random sample of citations. If no abstract can be identified, the publication will be dismissed. The reviewers will discuss uncertainties or differences. When in doubt, a third reviewer (vPC) will be consulted for the final decision. The same two reviewers will conduct the full text screening, which again will be pilot tested on a random sample of articles. No formal quality assessment will be performed.

Stage 4: Charting the data

One reviewer (RKC) will extract the data using a descriptive charting table designed for this review. The charting table will be pretested in collaboration with the second reviewer (NA) on a minimum of five articles to ensure consistency of data extraction. At this stage, the charting table may be further refined if necessary. The following key information will be extracted:

- author(s)
- year of publication
- publication type (eg, original research, report)
- study design
- population characteristic (eg, patient, citizen, ethnicity, sex, age, morbidity)
- provider characteristic (eg, profession)

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- concept described (eg, co-production, patient involvement)
- context (eg, country, healthcare setting, community setting)
- intervention (eg, goal setting)
- key findings (eg, factors influencing the co-productive relationship between immigrants and service providers.)

Table 1

Inclusion/exclusion criteria

Inclusion criteria are:
- **languages**: published in English, Danish, Swedish, Norwegian, or German languages - **date**: published from 2007 and onwards - **peer reviewed literature**: any study design and methodology - **non peer reviewed literature**: reports, government documents, guidelines, policy papers, and dissertations - **population**: Immigrants defined as foreign born people who have moved to another country for the purpose of settlement, as well as ethnic minority patients or citizens whose ethnicity and/or cultural traditions differ from those of the main population who co-produce services with healthcare/social providers or researchers - **co-production as method**: publications focusing on the joint creation of value for the co-producers through, for instance, the development, implementation, or evaluation of interventions, self-management plans, services, tools, or knowledge - **co-production as outcome**: publications that report on planned/unexpected co-produced outputs and outcomes, even if not initially planned - the co-producers both contribute resources and benefit from the value created by the service provided - publications that report on concrete improvement strategies for explicit collaboration or co-production between ethnic minorities and service providers - **setting**: co-production in healthcare or social/community settings
Exclusion criteria are:
- publications on how to involve and increase immigrant participation in research, trials, or screening interventions (unless they were directly involved in the development and design of

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these interventions and directly benefited from the value created through the research)
- publications focusing on co-production involving only more resourceful representatives of the immigrant target group
- publications focusing purely on consulting immigrants or service providers on their perspectives and opinions
- publications focusing on the recruitment/education of voluntary community (health) workers
- publications focusing only on the consequences of suboptimal immigrant – provider relationships
- publications on co-production on organisation level (eg, between hospital departments, with private organizations)

Stage 5: Collating, summarising and reporting the results

The scoping review will give an overview of a relatively broad field of literature, including a wide range of different publication types. Therefore, special attention will be paid to how the large amount of data will be presented. A guideline specifically for reporting scoping reviews is currently being developed by a group of researchers at the University of Toronto, but it has not yet been published.[40] We will make efforts to secure use of this new guidance, but failing its availability, we will use a modified version of the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA).[41] PRISMA items not appropriate for the purpose of this scoping review (eg, risk of bias) will be left out. The extracted data will be presented in tabular or diagrammatic form to give an overview of the amount, type, and distribution of included literature. We will use NVivo software (version 11, QSR International) for coding and analyzing the literature.

The plan for data presentation and discussion is based on the three research questions for this scoping review. We expect to outline individual and context-related factors that influence co-production processes between immigrants and their service providers. In addition, we will analyse how the identified factors affect the respective co-production process. Despite the contextual and setting related differences between a community and a healthcare setting, we want to investigate whether the mechanisms behind co-production in a community setting can be used for learning and as a source of inspiration for the healthcare sector.

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IMPLICATIONS

Interest in understanding the needs of new and diverse groups of patients and creating health services that can meet these needs in an interdependent, patient centred way invites a new approach. "Co-production" may open up new perspectives and possibilities to improve the contribution of healthcare services to health. Findings of this study will provide an innovative perspective on the co-produced services by immigrant patients and care providers in Danish healthcare. This study represents the first step of a research programme designed to develop a model of co-production of healthcare services with immigrant patients. Such a model will be based on principles that can be useful in designing and evaluating patient centred healthcare services for immigrant patient groups, not only in a Danish context but potentially in any setting where immigrant patients or other minority patient groups meet their care providers. A timeline for the entire scoping review process is presented in Table 2.

Table 2

Timeline for protocol and scoping review

	2017							2018	
	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb
Writing protocol									
Search									
Screening									
Analysis									
Reporting									

ETHICS AND DISSEMINATION

This scoping review will include exclusively published data, gathered through searching the literature in electronic databases and other online sources. Thus, no ethics committee approval is required for this study. The protocol will support a systematic and transparent process of preparing and conducting the entire review process. The results will be disseminated through presentations at national and international clinical conferences, and in relevant seminars and networks on co-

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production and/or immigrant health to relevant stakeholders and immigrant patient groups, and will be published in a peer reviewed journal.

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Contributors: RKC drafted the protocol. NA, BP and SM helped conceptualize the research, and reviewed and edited the protocol. vPC obtained funding, conceptualized the research and reviewed and edited the protocol.

Competing interest: None

Data sharing: No additional data available

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Ethics approval: The scoping review will undertake an analysis of published data and does not require ethical approval.

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Appendix 1 – Search strategy in PubMed, August 16th 2017

	Search terms	Results
1	Coproduction OR co-production OR coproduce OR co-produce OR coproducing OR co-producing	1474
2	Cocreation OR co-creation OR cocreate OR co-create OR cocreating OR co-creating	320
3	Codesign OR co-design OR codesigning OR co-designing	246
4	Cooperation OR co-operation OR cooperate OR co-operate OR cooperating OR co-operating	62062
5	Collaboration OR collaborate OR collaborating	64249
6	Co-care	10
7	“public participation” OR “public involvement” OR “public empowerment” OR “public activation”	1239
8	“community participation” OR “community involvement” OR “community empowerment” OR “community activation”	4504
9	“patient participation” OR “patient involvement” OR “patient empowerment” OR “patient activation”	4864
10	“Relationship-centered care” OR “relationship-centred care”	139
11	“patient-centered care” OR “patient-centred care” OR “patient-focused care”	4758
12	“patient-centered nursing” OR “patient-centred nursing”	74
13	“patient-centered communication” OR “patient-centred communication”	455
14	Patient-centeredness OR patient-centredness	1032
15	“shared decision-making”	4731
16	“cross-cultural communication”	164
17	“patient-provider relation” OR “patient-provider relations” OR “patient-provider relationship” OR “patient-provider relationships” OR “patient-provider communication” OR “patient-provider communications” OR “patient-provider interaction” OR “patient-provider interactions”	1578
18	“patient-physician relation” OR “patient-physician relations” OR “patient-physician relationship” OR “patient-physician relationships” OR “patient-physician communication” OR “patient-physician communications” OR “patient-physician interaction” OR “patient-physician interactions”	2007
19	“patient-doctor relation” OR “patient-doctor relations” OR “patient-doctor relationship” OR “patient-doctor relationships” OR “patient-doctor communication” OR “patient-doctor communications” OR “patient-doctor interaction” OR “patient-doctor interactions”	743
20	“patient-nurse relation” OR “patient-nurse relations” OR “patient-nurse relationship” OR “patient-nurse relationships” OR “patient-nurse communication” OR “patient-nurse communications” OR “patient-nurse interaction” OR “patient-nurse interactions”	148
21	“patient-hospital relation” OR “patient-hospital relations” OR “patient-hospital relationship” OR “patient-hospital relationships” OR “patient-hospital communication” OR “patient-hospital communications” OR “patient-hospital interaction” OR “patient-hospital interactions”	9
22	(((((“Patient Participation”[Mesh]) OR “Community Participation”[Mesh]) OR “Patient-Centered Care”[Mesh]) OR “Decision Making”[Mesh]) OR	268936

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	"Hospital-Patient Relations"[Mesh]) OR "Physician-Patient Relations"[Mesh]	
23	Or/1-22	402703
24	Migrant OR migrants	15667
25	Immigrant OR immigrants	21054
26	“ethnic minority” OR “ethnic minorities” OR “ethnic minority group” OR “ethnic minority groups”	8571
27	Refugee OR refugees	8095
28	“asylum seeker” OR “asylum seekers”	1075
29	Descendant OR descendants	4736
30	“undocumented immigrant” OR “undocumented immigrants” OR “illegal immigrant” OR “illegal immigrants”	448
31	((("Emigrants and Immigrants"[Mesh]) OR "Transients and Migrants"[Mesh]) OR "Refugees"[Mesh]) OR "Undocumented Immigrants"[Mesh]	25136
32	OR/24-31	60882
33	“healthcare service” OR “healthcare services” OR “health care service” OR “health care services”	18690
34	“social service” OR “social services”	9253
35	“community service” OR “community services”	3558
36	“community welfare”	69
37	“social welfare”	3692
38	“delivery of healthcare” OR “delivery of health care”	11032
39	“Integrated delivery of healthcare” OR “Integrated delivery of health care”	15
40	((("Health Services"[Mesh]) OR ("Delivery of Health Care"[Mesh] OR "Delivery of Health Care, Integrated"[Mesh])) OR "Social Welfare"[Mesh])	2412683
41	OR/33-37	2425575
42	23 AND 32 AND 38	1725
43	23 AND 32 AND 38 only: English, Swedish, Norwegian, Danish, German	1640
44	**From 2007 onwards**	**1018**

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PRISMA-P (Preferred Reporting Items for Systematic review and Meta-Analysis Protocols) 2015 checklist: recommended items to address in a systematic review protocol*

Section and topic	Item No	Checklist item
ADMINISTRATIVE INFORMATION		
Title:		
Identification	1a	Identify the report as a protocol of a systematic review page 1
Update	1b	If the protocol is for an update of a previous systematic review, identify as such N.A.*
Registration	2	If registered, provide the name of the registry (such as PROSPERO) and registration number N.A.
Authors:		
Contact	3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author page 1
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review page 14
Amendments	4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments N.A.
Support:		
Sources	5a	Indicate sources of financial or other support for the review page 14 (Acknowledgements)
Sponsor	5b	Provide name for the review funder and/or sponsor page 14
Role of sponsor or funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol page 14 (no competing interests)
INTRODUCTION		
Rationale	6	Describe the rationale for the review in the context of what is already known page 5-6
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO) page 6
METHODS		
Eligibility criteria	8	Specify the study characteristics (such as PICO, study design, setting, time frame) and report characteristics (such as years considered, language, publication status) to be used as criteria for eligibility for the review Described in detail on pages 7-10 Summarized in Table 1 on pages 11-12
Information sources	9	Describe all intended information sources (such as electronic databases, contact with study authors, trial registers or other grey literature sources) with planned dates of coverage page 7
Search strategy	10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be

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		repeated Appendix 1
Study records:		
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review page 10
Selection process	11b	State the process that will be used for selecting studies (such as two independent reviewers) through each phase of the review (that is, screening, eligibility and inclusion in meta-analysis) page 10
Data collection process	11c	Describe planned method of extracting data from reports (such as piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators page 10-11
Data items	12	List and define all variables for which data will be sought (such as PICO items, funding sources), any pre-planned data assumptions and simplifications page 10-11
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale page 12 (based on research questions)
Risk of bias in individual studies	14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis N.A.
Data synthesis	15a	Describe criteria under which study data will be quantitatively synthesised N.A.
	15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data and methods of combining data from studies, including any planned exploration of consistency (such as I^2, Kendall's τ) N.A.
	15c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression) N.A.
	15d	If quantitative synthesis is not appropriate, describe the type of summary planned page 12
Meta-bias(es)	16	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies) N.A.
Confidence in cumulative evidence	17	Describe how the strength of the body of evidence will be assessed (such as GRADE) N.A.

N.A.* = Not applicable

*** It is strongly recommended that this checklist be read in conjunction with the PRISMA-P Explanation and Elaboration (cite when available) for important clarification on the items. Amendments to a review protocol should be tracked and dated. The copyright for PRISMA-P (including checklist) is held by the PRISMA-P Group and is distributed under a Creative Commons Attribution Licence 4.0.**

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