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 coproduction 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 service is coproduced and directs attention to the relationship between patient and care provider. Coproduction is still a new concept in healthcare 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 coproduction of service by immigrants and their service providers in the healthcare sector.

Methods and analysis
We will use Joanna Briggs 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 coproduction of healthcare or social service 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 coproduction of value in healthcare service 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.

INTRODUCTION
Immigrants often experience barriers when accessing healthcare service 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 coproducing and receiving suboptimal care. 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. 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. 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 have their health and welfare care needs met.

Based on the growing belief that involving patients can improve the quality of care, over the past decade, healthcare systems have...
been infused with innovative strategies for shared decision-making, and patient centredness and participation.\textsuperscript{10, 11} These approaches might be beneficial for patients who actively participate in the medical consultation by expressing their concerns, asking questions 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.\textsuperscript{12} Thus, even within strategies of patient centredness, the patient still depends to a certain degree on the care provider,\textsuperscript{13} which might limit their full effectiveness to improve patient outcomes.\textsuperscript{14} It has been suggested that such predefined and standardised approaches to the provision of healthcare service 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.\textsuperscript{15} This suggests that a fresh frame for exploring the relationship between patient and care provider may offer new insights into how healthcare service can create the best possible value contribution for the health of all patients, and especially marginalised groups such as immigrant patients.

**Coproduction of healthcare service**

The concept of coproduction, as a new perspective, has great potential to improve healthcare service delivery. Originally established in the 1970s by political economist Elinor Ostrom,\textsuperscript{16} coproduction has only recently been introduced to healthcare but is quickly gaining momentum, both in practice and in research.\textsuperscript{15, 17, 18} According to Batalden,\textsuperscript{19} 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.”\textsuperscript{7} Thus, the core of healthcare service provision lies in the individual relationship between patient and care provider—a relationship in which the coproducers 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 on their well-being and the extent to which it meets their social, health or economic needs. Service coproduction does also create ‘public value’ by contributing to societal objectives or well-being.\textsuperscript{20}

Based on Osborne’s conceptualisation of the topic,\textsuperscript{20} our understanding of coproduction comprises (1) the ‘pure’ coproduction, in which the user unavoidably coproduces 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 coproduced service integrates with the 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 service.\textsuperscript{15}

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.\textsuperscript{15} Despite the overall optimism around the concept, there are also critical voices emphasising that coproduction 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 coproduce.\textsuperscript{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 coproduction to happen.\textsuperscript{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 coproduction process. However, if coproduction 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.\textsuperscript{24}

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.\textsuperscript{25–27} Yet, there is still little experience with the concept in healthcare service. This calls for further investigations on coproduction 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 coproduction of service between immigrants and their service providers in the healthcare and social/community sectors.

**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.\textsuperscript{28, 29} Thus, the scoping review method fits our purpose of providing a broad overview of the existing published and unpublished literature on service coproduction 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, which is based on the five-stage framework laid out by Arksey & O’Malley and Levac et al.

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

Coproduced healthcare service by immigrants and service providers 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 experiences of and attitudes toward 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. 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.

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 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. In healthcare, coproduction is usually of an involuntary nature because patients have to coproduce if they want better health. On the community level, coproduction is more of a conscious and voluntary act and is, for instance, concerned with how to empower citizens or improve overall service delivery. However, we decided to include the community sector to investigate whether we can learn from coproduction 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 online supplementary appendix 1). Elements of coproduction 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 coproduction to be comparable across countries. The search will be restricted to publications from 2007 onwards when patient-centred care was beginning to take root and appear in medical literature. 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 UK. This country was chosen because of its comprehensive experiences with the coproduction concept in healthcare.

Stage 3: study selection

The PCC (participant, concept, context) mnemonic suggested by the Joanna Briggs Institute 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 coproduc
tive relationship between immigrant patients/citizens and
care/service providers. Therefore, both sides of this rela-
tionship 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 immi-
grants 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 popu-
lation.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 Amer-
icans and Aborigines). On the service provider side, we
will include all types of health professionals and social
service providers that are delivering personal service
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 coproducing participatory research instead of
merely being consulted on a certain research topic.

(C) Concept
In this scoping review we, will analyse coproduction 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–physi-
cian 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 coproduce
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
coproduction and might entail coproducive elements.
We will use a broad definition of communication,
including verbal or non-verbal behaviour, interaction
and interpersonal knowledge, skills and habits. Publica-
tions on community-based participatory research will be
included if immigrants (1) have been actively copro-
ducing the research and (2) benefit from the value
created by the research project. Framing the concept of
coproduction this way will allow us to include literature
with an intention to coproduce service between immi-
grants and service providers, as well as publications with
an unexpected, but retrospectively recognised, copro-
duced outcome.

(C) Context
We will include two different arenas in which coproduc-
tion 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 healthcare sector,
public, private, somatic and psychiatric hospitals will be
included. All types of healthcare service 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 immi-
grant citizens or communities actively participate in
delivering social service. The definition of social services
used here is: (1) they are personal services, rather than
services related to the production of goods; (2) they
fulfil 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 soft-
ware Covidence (www.covidence.org). Covidence also
facilitates the creation of a PRISMA flow diagram once
the screening process is completed. Two reviewers (CR-K
and AN) will screen titles and abstracts against the PCC
criteria and mark them ‘include,’ ‘exclude,’ ‘uncertain’
or ‘relevant for other purposes.’ A summary of all inclu-
sion and exclusion criteria in regard to form and content
is shown in box 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 (CV-P) 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 (CR-K) will extract the data using a descrip-
tive charting table designed for this review. The charting
table will be pretested in collaboration with the second
reviewer (AN) on a minimum of five articles to ensure
consistency of data extraction. At this stage, the charting
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 coproduction processes between immigrants and their service providers. In addition, we will analyse how the identified factors affect the respective coproduction processes between immigrants and their service providers. 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 1.

**Box 1 Inclusion/exclusion criteria**

<table>
<thead>
<tr>
<th>Inclusion criteria:</th>
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<tr>
<td><strong>Languages</strong>: published in English, Danish, Swedish, Norwegian or German languages.</td>
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<td><strong>Date</strong>: published from 2007 and onwards.</td>
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<tr>
<td><strong>Peer-reviewed literature</strong>: any study design and methodology.</td>
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<tr>
<td><strong>Non-peer-reviewed literature</strong>: reports, government documents, guidelines, policy papers and dissertations.</td>
</tr>
<tr>
<td><strong>Population</strong>: 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 coproduce services with healthcare/social providers or researchers.</td>
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<tr>
<td><strong>Coproduction as method</strong>: publications focusing on the joint creation of value for the coproducers through, for instance, the development, implementation, or evaluation of interventions, self-management plans, services, tools or knowledge.</td>
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<tr>
<td><strong>Coproduction as outcome</strong>: publications that report on planned/unexpected coproduced outputs and outcomes, even if not initially planned.</td>
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<td><strong>The coproducers both contribute resources and benefit from the value created by the service provided.</strong></td>
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<td><strong>Publications that report on concrete improvement strategies for explicit collaboration or coproduction between ethnic minorities and service providers.</strong></td>
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<td><strong>Setting</strong>: coproduction in healthcare or social/community settings.</td>
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<tr>
<td><strong>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 these interventions and directly benefited from the value created through the research).</strong></td>
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<tr>
<td><strong>Publications focusing on coproduction involving only more resourceful representatives of the immigrant target group.</strong></td>
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<td><strong>Publications focusing purely on consulting immigrants or service providers on their perspectives and opinions.</strong></td>
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<tr>
<td><strong>Publications focusing on the recruitment/education of voluntary community (health) workers.</strong></td>
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<td><strong>Publications focusing only on the consequences of suboptimal immigrant–provider relationships.</strong></td>
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<tr>
<td><strong>Publications on coproduction on organisation level (eg, between hospital departments, with private organisations).</strong></td>
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**IMPLICATIONS**

Interest in understanding the needs of new and diverse groups of patients and creating health service that can meet these needs in an interdependent, patient-centred way invites a new approach. ‘Coproduction’ may open up new perspectives and possibilities to improve the contribution of healthcare service to health. Findings of this study will provide an innovative perspective on coproduced healthcare service 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 coproduction of healthcare service 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 1.
Table 1  Timeline for protocol and scoping review

<table>
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<tr>
<th>Writing protocol</th>
<th>Search</th>
<th>Screening</th>
<th>Analysis</th>
<th>Reporting</th>
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**Contributors** CR-K drafted the protocol. AN, PB and MS helped conceptualise the research, and reviewed and edited the protocol. CVP obtained funding, conceptualised the research and reviewed and edited the protocol.

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**Patient consent** Not required.

**Provenance and peer review** Not commissioned; externally peer reviewed.

**Data sharing statement** No additional data available.

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