Cultural Competence for Health Professionals Instrument Development

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To my extraordinary family!

“Truth is, I’ll never know all there is to know about you just as you will never know all there is to know about me. Humans are by nature too complicated to be understood fully. So, we can choose either to approach our fellow human beings with suspicion or to approach them with an open mind, a dash of optimism and a great deal of candour.”

Tom Hanks

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ABSTRACT

In recent decades, both global migration in general and specifically migration to Sweden have increased. This development compels the need for delivering healthcare to the increasingly diverse populations in Sweden. To support health professionals, for instance occupational therapists, in developing their professional knowledge in encounters with foreign-born clients a self-rating instrument measuring cultural competence is developed. This may contribute to the development of suitable services for foreign-born clients and improve person-centered interventions for these clients.

The general aim of this thesis was to develop an instrument for health professionals by examining psychometric properties and utility of the Swedish version of the Cultural Competence Assessment Instrument (CCAI-S) among occupational therapists. The specific aim of study I was to evaluate the content validity and utility of the Swedish version of the Cultural Competence Assessment Instrument (CCAI-S) among occupational therapists. The study had a descriptive and explorative design. Nineteen occupational therapists participated, divided into four focus groups. Qualitative content analysis was used to examine the content validity and utility of the CCAI-S. The specific aim of study II was to examine the clinical relevance, construct validity and reliability of the Swedish version of the Cultural Competence Assessment Instrument (CCAI-S) among Swedish occupational therapists. The study had a cross-sectional design. A web-based questionnaire was emailed to a randomised sample of 428 occupational therapists to investigate the construct validity, reliability and utility of the CCAI-S. Factor analysis was performed as well as descriptive statistics.

The findings from study I revealed high content validity for all 24 items. However, six items needed reformulations and exemplifications. Regarding utility, the results showed strong support for CCAI-S. The category 'Interactions with clients' showed that the CCAI-S could be utilised individually for the health professional and create a higher awareness of cultural questions in practice. The category 'Workplace and its organisational support' displayed potential for use in different workplaces regarding CCAI-S and indicated the importance of organisational support for health professionals in the development of cultural competence. The findings from study

II regarding construct validity generated a three-factor model with the labels 'Openness and awareness', 'Workplace support' and 'Interaction skills'. All three factors showed high factor loadings and contained 12 of the 24 original items. The Cronbach's Alpha showed high support for the three-factor model. Concerning utility, the participants reported that all 24 items had high clinical relevance.

In conclusion, the findings from the two studies indicated good measurement properties and high clinical relevance for the CCAI-S. This may support the utilisation of CCAI-S in the Swedish context for health professionals, for instance occupational therapists. The results of the instrument development show that the upcoming published version of the CCAI-S can be a valuable self-assessment tool for health professionals who strive to improve in person-centred communication in encounters with foreign-born clients. CCAI-S can also be of support for the organisation to serve as a guide for what to focus on to develop cultural competence within the staff. Altogether this presumably influence the effectiveness of the healthcare and enhance the evidence of interventions for foreign-born clients. To develop an instrument is an iterative process requiring several evaluations and tests in various settings and populations. Therefore further psychometric testing and utility studies on the CCAI-S is crucial.

Key words: cultural competency, ethnic groups, health personnel, occupational therapy, psychometrics, qualitative research, self-assessment

LIST OF PAPERS

This thesis is based on the following papers that are referred to in the text by their Roman numerals:

- I. Holstein J., Liedberg GM., Öhman A., & Kjellberg A. (2019) Validity and utility of the Swedish version of the Cultural Competence Assessment Instrument. *British Journal of Occupational Therapy*, February 27. 0(0), 1–11, doi: 10.1177/0308022619825813
- II. Holstein J., Liedberg GM., Suarez-Balcazar Y., & Kjellberg A. Clinical relevance and psychometric properties of the Swedish version of the Cultural Competence Assessment Instrument for health professionals. Submitted manuscript.

ABBREVIATIONS

CCAI	Cultural Competence Assessment Instrument
CCAI-S	Cultural Competence Assessment Instrument-Swedish Version
CCM	Cultural Competence Model
CFA	Confirmatory Factor Analysis
EFA	Explorative Factor Analysis
FA	Factor Analysis
IRM	The Intentional Relationship Model
SCB	Statistics Sweden
SFS	Swedish Code of Statutes

INTRODUCTION

In my work as an occupational therapist, several of my clients were foreign-born. This made it both challenging and exciting to find ways to collaborate in a manner appropriate to my clients as well as to my colleagues and myself. I felt a great need in a practical sense to develop my own ability to deal with different types of situations related to this. Occupational therapists have theoretical and professional competence to stimulate the self-efficacy that affects the well-being and health of immigrants (Gupta & Sullivan, 2008). In my role as the International Academic Coordinator for the Occupational Therapy programme at Linköping University, I have met culturally diverse persons, which has broadened my perspective and given me experiences to be open-minded in interactions with persons from foreign-born backgrounds. In my work I also collaborated with different health professionals, and they felt a similar need for support as I did. In 2014, Professor Yolanda Suarez-Balcazar from the Department of Occupational Therapy at the University of Illinois at Chicago, USA, was invited to the Division of Occupational Therapy at Linköping University. She held a workshop with the title “The role of cultural competence in occupational therapy: scholarship and practice”. Key definitions of cultural competence were discussed and why health professionals need to have cultural competence as well as research on cultural competence in occupational therapy. This interesting workshop was an eye-opener for me and my colleagues in giving practical ideas in how the challenges could be met in interactions with a variety of clients. Occupational therapists could handle the challenges regarding diversity in using cultural competence (Kinebanian & Stomph, 2009) and by improving their cultural competence through committing in reflexive practice and act to promote equity in healthcare outcomes (Wray & Mortenson, 2011). A way to improve in the area could be by using the American version of Cultural Competence Assessment Instrument but developing it for Swedish conditions. In 2015, I started my own stimulating journey with a focus on instrument development in cultural competence and I have learned so much during this process. Now I have reached an important stage in both my own development for becoming a researcher and the development of the Swedish version of CCAI.

BACKGROUND

Migration and health

According to SCB (2016) approximately 2.7 million people have moved to Sweden since 1970. Persons migrate for different reasons, usually due to wars and conflicts, business cycles or personal relationships. Examples of wars which led to migration are the war in Iran and Iraq in the 1980s, the war in former Yugoslavia in the 1990s and the war in Syria in 2015. Migrationsverket (2017) describes that more than a million persons fled to the European countries in 2015, to seek protection from persecution and war. Of these, about 163,000 people arrived in Sweden, which is twice as many as in 2014 when 81,000 asylum seekers came to Sweden. Never before have so many persons needed protection in Sweden as was the case in 2015. Sweden has received the most people in the European Union in relation to its population. Based on statistics from SCB (2018) Sweden have approximately 10.1 million inhabitants, 1.1 million of whom were born abroad. Furthermore, according to SCB (2019) in 2017, 68,889 people from more than 160 countries had become new Swedish citizens, an increase of 14 percent compared with the previous record in 2016. A large part of the increase can be explained by recent years of significant immigration from Syria. In 2017, primarily persons from the following countries migrated to Sweden (in descending order): Syria, Afghanistan, Iraq, India, Poland, Iran, Eritrea, Somalia and Finland.

Refugees originate from many diverse locations around the globe, and they respond to trauma, migration stressors, and resettlement difficulties in a variety of ways. How they respond is based on cultural backgrounds, personal characteristics and healthcare experiences (Annamalai, 2014). A refugee has a more difficult starting point than the migrant worker does, because persons who flee from their homeland have usually lived for a while under great stress before fleeing. The act of fleeing itself is frequently characterised by threats and tensions, and many families are divided for long periods. In the new country, there are times of uncertainty due to the asylum process. Overall, these factors lead to greater mental ill health among newly arrived refugees than in other groups of migrant (Socialstyrelsen, 2009). Non-European migrants in Sweden state that they have poor or

very poor health, three to four times as often as Swedish-born persons. Specific public health problems, such as allergic diseases and diabetes, differ broadly across immigrant groups. The particular background of refugees makes them particularly vulnerable to psychiatric mental ill health, and this is exacerbated by the anxieties that follow during the asylum process (Hjern, 2012). Current evidence suggests that mental ill health is likely to be widespread among war refugees several years after immigration. This increased risk may not only be a result of wartime trauma; it can also be influenced by socio-economic causes (Bogic, Njoku, & Priebe, 2015). Between 20 and 30 percent of all asylum seekers who come to Sweden are perceived as having mental ill health (Socialstyrelsen, 2015). Many foreign-born persons have moved from countries where the risk of being infected by long-term infections is significantly higher than in Sweden, for instance hepatitis B and C, tuberculosis and HIV. Men originating from the Mediterranean region have a higher risk of suffering from tobacco-related morbidity, such as lung cancer, compared to the average population in Sweden, but at the same time they have a lower risk of alcohol-related illness such as liver cirrhosis. Many significant public health problems are caused by environmental factors in conjunction with a congenital vulnerability, e.g. allergic diseases and diabetes. The presence of the genetic factors that cause this vulnerability differs between different populations in the world and continues to affect the risk of these diseases among migrants in the new country (Socialstyrelsen, 2009).

Important aspects of migration and health in Europe are affected by the fact that the health situation for immigrants is complicated by socioeconomic conditions, the varied living conditions of immigrants and significant differences between health systems in the host countries (Rechel, Mladovsky, Ingleby, Mackenbach, & McKee, 2013). Diaz et al. (2017) conducted a systematic literature review with the aim of evaluating health interventions for immigrants. The results showed two types of intervention, at both organisational and individual levels. The organisational interventions were designed for the majority population to be sensitive to diversity regardless of their cultural, religious or other background, so that they can be equally effective for all citizens. The individual interventions were culturally adjusted to immigrants' individual backgrounds. However, most interventions were targeted at individuals without any theoretical basis. Many studies lacked clear information regarding the specific features that organised cultural tailoring of the intervention. According to Butler et al. (2016) it is important that interventions address structural barriers faced by vulnerable populations in order to attain health equity. Hjern (2012)

emphasises that social vulnerability and discrimination are the main reasons of ill health for foreign-born in Sweden. The area of public health work have an important responsibility to these processes. A study by Björk Brämberg and Nyström (2010) describe how experiences of being an immigrant can influence the situation when becoming a patient in Swedish healthcare. The result shows that there is a strong relation between a successful migration process and being active partner in the personal healthcare. A patient with an immigrant background, need to have the individual story visible in the health caring situation. Positive experiences from coping with a challenging situation, such as migrating to a new country may lead to favourable conditions for problems, such as disease.

Since numerous health professionals meet refugees in their practice, it is a growing requirement to be trained in specific health issues regarding refugees (Annamalai, 2014). Health professionals refers to numerous professionals that work in the area of health and healthcare. Health professionals could consist of physicians, nurses, occupational therapists, physio therapists, speech and language therapists, chiropractors, radiographists, nutritionists, midwives and pharmacists (Chevannes, 2002; Adams & Jones, 2011; Harris et al., 2018; Harris-Haywood et al., 2014; Gozu et al., 2007).

Cultural competence

Culture consists of knowledge, beliefs, values, assumptions, perspectives, attitudes, norms and customs that persons receive through membership of a particular group or society (Hammel, 2013). A person's behaviour in a group is influenced by culture through different languages, ways of communicating and mindsets. Variables such as social, educational and economic levels, age, sex and place of residence, and ethnicity can all be considered part of a culture (Black & Wells, 2007). All persons belong to numerous cultural groups and react to various cultural influences. As the individual interrelates with other people in specific surroundings, the influences are in continuous interchange with one another. Actions, opinions and values are all products of lifetime experience, viewed and altered by the biological, relational and environmental circumstances people live in. At

any moment, a person emphasises certain parts of this multifaceted cultural identity as they interact with other people, organisations and the physical environment. An individual's culture is communicated through performance, which reflects a combination of several influences. Culture emerges in collaborations amongst individuals mainly through verbal communication and performance (Bonder & Martin, 2013). Culture can be considered an integral dimension of both persons and environments. Cultural variations constitute the grounds for a socially constructed hierarchy of traits that can significantly determine occupational opportunities and that may impact on mental health and well-being (Hammell, 2013). Culture can effect several facets of health, for instance sets of symptoms that are displayed, responses to these symptoms, explanations of disease, attitude and beliefs towards medications and treatment, the relationship to the family, and approach to health professionals (Annamalai, 2014).

In the Swedish Discrimination Act (SFS: 2008:567), the term 'ethnicity' refers to "an individual's national or ethnic origin, skin colour or other similar characteristic". According to Rostila and Toivanen (2012) ethnicity can also be regarded as a group that persons identify with, or with which others identify them, based on cultural factors and factors including language, religion, origin and physical characteristics such as skin colour and hair colour. 'Foreign-born' refers to persons born outside the country in question. 'Immigrants' are persons who have moved from their country of birth to another country to settle permanently or temporarily (Rostila & Toivanen, 2012). According to Bhopal (2012) a 'migrant' is an individual who depart one country to start a residence in a new one. Diaz et al. (2017) define 'international migrants' as persons who have moved across an international border away from their place of residence, regardless of the reasons for the movement or whether such movement is voluntary. According to Bhopal (2012) ethnicity, including race, is the group a person is perceived to belong to, because of origin, culture, and physical features. Occasionally, the concept of race is applied synonymously with ethnicity, but since race can be perceived as having a discriminatory meaning, it is rarely used in Sweden (Rostila & Toivanen, 2012). Ethnicity mirrors biology less than societal conditions (Bhopal, 2012). Dahlstedt and Neergaard (2015) state that the concept of ethnicity can be viewed differently based on what kind of research it is connected to. In the social sciences, for example, it is frequently associated with global economic and political processes. In recent research, the concept of ethnicity has been used in studies on migration and the processes of social inclusion and exclusion.

There is no homogeneous definition of cultural competence. Anderson, Scrimshaw, Fullilove, Fielding and Normand (2003) state that cultural competence comprises the ability to recognise, comprehend, and respect the beliefs and values of clients. According to Balcazar, Suarez-Balcazar, Taylor-Ritzler and Keys (2010) cultural competence is an understanding of how culture affects the individual's beliefs and behaviours. It also includes the ability of health professionals to modify their therapeutic strategies to meet the individual's needs and develop the capacity to work effectively with individuals from different cultural backgrounds. Cultural competence has also been described as a process which entails an ability to communicate effectively, and to meet the needs of clients, who look, think and behave differently in relation to the occupational therapist (Balcazar, Suarez-Balcazar & Taylor-Ritzler, 2009; Balcazar et al., 2010; Suarez-Balcazar et al., 2009). Black and Wells (2007) also define cultural competence as a process where the professional dynamically evolving by practicing suitable strategies in interacting with culturally diverse persons and having the ability to react to the needs of minority populations with cultures different to the majority population. Darawsheh, Chard and Eklund (2015) similarly describe it as a process which is complex but adding the need to be grounded on underpinning occupational therapy theory and actualised at the level of practice.

Dreachslin, Gilbert and Malone (2012) state that cultural competence incorporates all practices and approaches required to work professionally with patients from numerous groups based on a comprehension of the values, beliefs and social situation. By thoroughly incorporating the conceptions and practices of cultural competence and diversity into the processes, communications and organisations of the healthcare system, suitable care for diverse groups and the removal of inequalities could better be attained and the aim of good healthcare across the nation more fully understood. A literature review by Horvat, Horey, Romios and Kis-Rigo (2014) assessed the effects of cultural competence education interventions for health professionals, and the results show positive (although with low-quality evidence) improvements in the participation of culturally and linguistically diverse patients. Cultural competence can therefore be recognised as a key strategy to address health inequities. A study by Isaacs, Valaitis, Newbold, Black and Sargeant (2013) revealed that perceived cultural competency from healthcare providers affected the degree of trust and collaboration within the services network when addressing the needs of recent immigrant families. Cultural competence trust towards providers increased the commitment to work together, while the absence of cultural competence trust

generated avoidance. The improvement of systemic cultural competences within a services network is required in order to develop collaborations and access to services for immigrant families.

A Swedish study by Berlin, Nilsson and Törnkvist (2010) aimed to evaluate a specific three-day training course on cultural competence in nursing. The results showed statistically significantly improved cultural knowledge and cultural skills, but no statistically significant changes were found regarding cultural awareness. The desire for further learning regarding cultural competence had enhanced among 92% of the nurses. The effects are assumed to contribute to an enhanced quality of health services. One reason to promote cultural competence is the increased diversity within the group of persons with disabilities all over the world (Balcazar et al., 2010). One approach to respond to the demographic changes in Swedish society is enhanced cultural competence, according to Berlin et al. (2010). Based on the outcomes of their study, the implications for healthcare providers involve supporting formal and ongoing training in cultural competence for nurses employed in the health services.

The Cultural Competence Model

Balcazar et al. (2009) conducted a systematic review of cultural competence models, cultural knowledge, cultural awareness, cultural competency research, multiculturalism, minorities and cross-cultural service/care. The purpose of this review was to identify the most prevalent measures or models utilised to evaluate or educate cultural competence. The findings revealed that the models used included cognitive and behavioural elements, but only a few highlighted contextual components. The available models have mostly been developed in the fields of nursing and counselling psychology, and none of these measures has been used in occupational therapy (Suarez-Balcazar et al. 2009). Based on the findings, the Cultural Competence Model (CCM) was developed in 2009 and revised in 2010.

The CCM includes an elementary statement that professionals wish to learn more about persons from diverse populations in a continuous process (Balcazar et al., 2009). The model consists of three domains. The cognitive domain reflects critical awareness and understanding, and consists of a multifaceted progression of self-reflection. This reflections starts with the preparedness to question personal beliefs, and a readiness to change and learn from the client's culture. The contextual domain emphasises organisational support for multicultural practices and opportunities for the professional to develop cultural understanding. The degree of organisational support for participation in cultural competence work is important, as resourceful staff increase the authenticity and prominence of the various ethnic groups in society. The behavioural domain concerns evolving abilities and skills. This includes learning to communicate empathetically and effectively with the person, as well as integrating the individual's beliefs, values, experiences and ambitions during the work process. Based on the model, a correspondent assessment instrument – the Cultural Competence Assessment Instrument (CCAI) – was developed in the USA (Suarez-Balcazar et al., 2011).

The Cultural Competence Assessment Instrument

The CCAI is a self-reported instrument for measuring the cultural competence of healthcare professionals, such as occupational therapists. The instrument is completed by the clinician and includes three sections. The first section involves a number of demographic questions on gender, education, current work setting and occupation, years of practice and continent/country of birth. This section comprises seven questions altogether. The next section involves questions on experiences, requesting information such as if the occupational therapists used other languages than Swedish in their clinical practice, continent/country of birth for the clients, and exposure to cultural competence through training (nine questions). The last section of the instrument involves 24 self-rated questions designed to measure domains: 1) Cultural awareness and knowledge, with eight items, 2) Organisational support for multicultural practice, with eight items and 3) Cultural skills, with eight items. The domains and items in CCAI can be viewed in Table 1. A six-point Likert-style scale is used, where 6 corresponds to “strongly agree” and 1 to “strongly disagree”. The construct validity of the original version of the CCAI based on factor analysis in a random sample of 477 occupational therapists showed strong psychometric support for the

24 items and the three factors (i.e. domains) mentioned above (Suarez-Balcazar et al., 2011).

Table 1. The domains and items in CCAI

Domain Cultural awareness and knowledge
Item 1. I openly discuss with others issues I have in developing multicultural awareness.
Item 2. I learn about different ethnic cultures through educational methods and/or life experiences.
Item 3. I examine my own biases related to ethnicity and culture that may influence my behaviour as a service provider.
Item 4. I actively strive for an atmosphere that promotes risk-taking and self-exploration.
Item 5. I am sensitive to valuing and respecting differences between my cultural background and my clients' cultural heritage.
Item 6. I feel that I can learn from my ethnic minority clients.
Item 7. It is difficult for me to accept that religious beliefs may influence how ethnic minorities respond to illness and disability.
Item 8. I do not consider the cultural backgrounds of my clients when food is involved.
Domain Organizational support for multicultural practice
Item 9. Cultural competence is included in my workplace's mission statement, policies, and procedures.
Item 10. My workplace does not support using resources to promote cultural competence.
Item 11. My organization does not provide ongoing training on cultural competence.
Item 12. My workplace does not support my participation in cultural celebrations of my clients.
Item 13. At work, pictures, posters, printed materials, and toys reflect the culture and ethnic backgrounds of ethnic minority clients.
Item 14. I receive feedback from supervisors on how to improve my practice skills with clients from different ethnic minority backgrounds.
Item 15. The way services are structured in my setting makes it difficult to identify the cultural values of my clients.
Item 16. I have opportunities to learn culturally responsive behaviours from peers.

Domain Cultural skills
Item 17. I am effective in my verbal communication with clients whose culture is different from mine.
Item 18. I am effective in my nonverbal communication with clients whose culture is different from mine.
Item 19. I would find it easy to work competently with ethnic minority clients.
Item 20. I feel that I have limited experience working with ethnic minority clients.
Item 21. It is difficult to practice skills related to cultural competence.
Item 22. I feel confident that I can learn about my clients' cultural background.
Item 23. It is hard adjusting my therapeutic strategies with ethnic minority clients.
Item 24. I do not feel that I have the skills to provide services to ethnic minority clients.

Occupational therapy and cultural competence

Developing cultural competence is fundamental to the effective use of self in occupational therapy. For this reason, cultural competence is considered a central skill that must be developed and incorporated into every therapist's interpersonal knowledge base (Taylor, 2008). Culture affects occupation, and occupational therapists must acknowledge its impact on daily life and on intervention strategies. Failure to do so can prevent the establishment of relationships, decrease trust and lead to communication difficulties, all of which can reduce the effectiveness of the intervention (Bonder, Martin, & Miracle, 2004).

The Intentional Relationship Model (IRM) is a model in occupational therapy that focuses on the communication and relationship between the occupational therapist and the client. To be able to apply the IRM, the occupational therapist must have cultural competence. Cultural competence is central to practice, and therapeutic use of the self must be informed by human diversity. 'Human diversity' is a term that defines differences between persons in a number of characteristics including, but not limited to, age,

sex, race, ethnicity, language, disability, religion, economic status, educational level, family situation, sexual orientation, political viewpoint and national origin (Taylor, 2008).

There are underlying principles in the IRM, several of which have connections to the CCM (Balcazar et al., 2009). For instance, in the IRM it is crucial to have a critical self-awareness of the intentional use of the self and mindful empathy to know the client (Taylor, 2008). This can be related to the cognitive domain in the CCM where it reflects the critical awareness and understanding within occupational therapists (Balcazar et al., 2009). Bonder et al. (2004) also emphasise that therapists can engage in self-reflection and evaluation of interactions in order to improve subsequent encounters. Reflection on choices made in one encounter can help therapists to improve the next interaction. According to Taylor (2008) the IRM stresses the responsibility of the therapist to expand the interpersonal knowledge base and that it is the client who defines a successful relationship (Taylor, 2008). This can be correlated to the behavioural domain in the CCM where the occupational therapist has to develop skills to communicate empathetically and integrate the person's beliefs and values during the work process (Balcazar et al., 2009). Bonder et al. (2004) draw attention to word choice, facial expression, body posture, voice tone and gestures, and other clues about the feelings and attitudes of the individual can be identified only through careful attention. It is impossible to know all there is to know about every labelled cultural group, but asking questions to help interpret observations can provide vital information to assist in understanding the individual and framing the intervention.

According to the CCM, one domain is related to organisational support for developing cultural competence (Balcazar et al., 2009). A review with a focus on cultural competence in rehabilitation service showed that the main barriers to rehabilitation services are language obstacles, inadequate resources and cultural barriers. Main enablers comprise cultural awareness among clinicians and in services, with explanations of how the healthcare system works (Grandpierre et al., 2018). An understanding of the health system in the country in question can be complicated by language barriers and the fact that all different healthcare providers and actors may fragment

the system itself. Occupational therapists can have a cultural approach to treatment, thus encouraging the integration of society, while using immigrants' meaningful occupations therapeutically which can help the clients preserve valued features of their ethnic identity (Gupta & Sullivan, 2008).

According to Bonder et al. (2004), the therapeutic encounters become a balancing act between the individual and the culture. The therapist must distinguish the limits of cultural generalisations, but, at the same time, must have some culture-specific knowledge about the general characteristics of cultural groups. Strategies that therapists can use in clinical encounters include being sensitive in the interaction with the client. Because culture emerges in interaction, each interaction is a new situation. The modes described in the IRM (Taylor, 2008) can be a practical way to reflect how culturally diverse clients can be met in the best way. The IRM describes six therapeutic modes that are ways of relating to the client: advocating, collaborating, empathising, encouraging, instructing and problem-solving. Advocating stresses the importance of ensuring the client's rights are applied and protected. This might call for the therapist to function as an enforcer with external persons and agencies. Collaborating includes the occupational therapist expecting the client to be an equal and active partner in the therapy process. This requires that the occupational therapist ensures the opportunities of choice, freedom and autonomy to the maximum degree possible. Empathising is about the need for the occupational therapist to strive constantly to comprehend the client's opinions and behaviours while refraining from passing judgement. To confirm that the client experiences and substantiates the therapist's comprehension, it must be validating and open. Encouraging is about the therapist seizing the opportunities to instil hopefulness in the client and, through positive support, endorsing client's behaviour or thinking. The occupational therapist's attitude should be one of enjoyment and confidence. Instructing involves the therapist thoroughly organising treatment activities and being clear with clients about the strategy, arrangements and actions of therapy. This requires the provision of clear instructions and responses about the client's behaviour. Problem-solving involves the occupational therapist having to enable practical thinking and solving problems by offering different choices, asking intentional questions, and giving opportunities for methodical thinking.

A person-centered approach according to the Model of Human Occupation (Kielhofner 2012) involve two main features for the occupational therapist to consider. Each client is a unique individual whose personal characteristics are the basis of the choices of treatment goals and treatment strategies. The central mechanisms of change is based on what the clients do, think and feel. For the occupational therapist this means that the client functions as both a source of information and a partner. Bonder et al. (2004) state that an understanding of culture is developed in interaction, including occupational therapy intervention. Experiences with individuals from a particular culture may well lead to a set of assumptions about all individuals from that culture. If a therapist brings those assumptions into an intervention without scrutinising the applicability to that specific client, this could result in failure in terms of what can be accomplished. The clinician must recognise when cultural generalisations apply to a particular situation and when individual factors predominate. According to Beagan (2015), there are four approaches in occupational therapy towards culture and diversity. The cultural competence approach is the most common, and emphasises ethnicity. In this approach, self-assessment instruments generally measure awareness, knowledge and skills. The culturally relevant approach criticise the grounds that occupational therapy is connected to Western middle-class culture values because it is rooted in Western values, and this approach focuses on ethnicity. The cultural safety approach emphasises power relations and financial and social injustices. This approach considers a range of diversity beyond ethnicity. The cultural humility and critical reflexivity approach targets each form of diversity related to social disparities and power inequalities. In the power relations between the client and the occupational therapist, this approach can be considered. This approach is quite new in occupational therapy but is commonly used in the field of medicine. The research on the CCAI-S can be considered as belonging to the cultural competence approach.

Castro, Dahlin-Ivanoff and Mårtensson (2014) performed a study with the aim of describing how culture is expressed in occupational therapy research regarding knowledge improvement and the impact on practice. Their result show that occupational therapists work directly with sensitive issues such as purpose, meaning and doing. Moreover, the authors propose that ignoring how culture is associated with abovementioned aspects can

lead to unethical practices from an individual level to a global level. A literature review with a focus on current knowledge of immigration and its impact on occupation by Bennett, Scornaiencki, Brzozowski, Denis and Magalhaes (2012) revealed the complex and multifaceted effect that immigration has on occupation, from a Canadian perspective. The results describe the importance of role change, work, identity, and health and well-being. Immigrants' occupations and their identity change because of immigration. Occupational therapists working with immigrants have an obligation to apprehend their client's previously meaningful occupations, as well as the impact and changes immigration has had on these occupations. Of the 36 articles reviewed only five were published in journals regarding occupational therapy or occupational science worldwide, meaning that the majority of the literature derives from other disciplines.

An interview study with the aim of gaining an understanding of the experience of living as an asylum seeker in Iceland was conducted by Ingvarsson, Egilson and Skaptadottir (2016). The results showed that the long processing time for asylum applications has a detrimental effect on health. In order to promote asylum seekers' well-being and occupational rights, consideration needs to be focused on their living conditions and opportunities for participation in meaningful occupation, including work. An interview study with Swedish migrants with disabilities revealed that the participants strive to participate in occupations and society, and the results highlight the need for adequate healthcare and rehabilitation as well as other social institutions (Santos Tavares Silva & Thoren-Jonsson, 2015). This study shows the prominence of occupation for persons related to the consequences of disability and migration. Occupation could be seen as a way to manage changes, adapt and participate. Being attentive to the needs of migrants with disabilities is important in order to treat these individuals on both a personal level and a societal level.

Several studies on occupational therapists and cultural competence have been conducted. Darawsheh et al. (2015) performed semi-structured interviews with 13 community occupational therapists experienced in delivering occupational therapy services in clients' homes in culturally diverse areas

in London, England. Based on the study results, a model of cultural competency was devised and comprised six stages: cultural awareness, cultural preparedness, a cultural picture of the person, cultural responsiveness, cultural readiness and cultural competence. The result proposes consideration to the importance of the person, environment and occupation in the current theoretical models, where occupational therapists have great potential to contribute within the field of research. Further research is needed to test the process of cultural competency in different areas of occupational therapy practice. A study by Govender et al. (2017) explored the cultural competence of final year occupational therapy students in South Africa. Cultural competence was shown to influence intervention through supporting or hindering relationship building, client centeredness and effective intervention. In relation to language and culture, cultural competence influences the occupational therapy intervention process. An interview study was executed by Pooremamali, Persson and Eklund (2011) to explore experiences of occupational therapists working with immigrant psychiatric clients in Sweden. The results showed several cultural, societal and professional dilemmas that influenced effective multicultural occupational therapy. Seeking cultural knowledge and suitable strategies in which the multicultural therapeutic relationship could improve was influenced by these dilemmas. This suggests that cultural diversity is challenging for occupational therapists. Further, the authors proposed that culturally equivalent occupational therapy practice needs to be further developed and that more research is needed on how cultural issues can be addressed in occupational therapy practice. In order to facilitate occupational therapists working with foreign-born clients, their cultural competence can be developed using a self-assessment instrument in order to clarify both strengths and weaknesses in this regard. This can influence occupational therapists' interventions for various target groups.

Instrument development

One important aspect when testing psychometric properties is validity, which is defined as the ability of an instrument to measure what it is intended to measure. There are different types of validity that can be assessed using instruments. Content validity is the degree to which the items in an

instrument appropriately represent the content of the concept being measured, how the selected questions cover conceptual definitions of the area's scope and whether it reflects the extent to which the measures cover the domains adequately (Polit & Beck, 2016; Field, 2018). Content validity is evaluated by expert assessment (Polit & Beck, 2016; McDowell, 2006). Criterion validity relates to the correlation of an instrument with another instrument measuring the same criterion or characteristics under study, preferably to a gold standard that has been applied and established in the field. Criterion validation can be separated into two types: concurrent validation and predictive validation. When measuring concurrent validation correlations are tested with a new scale to another well established scale, and the both scales are given at the same time. With predictive validation, the new scale and a well established scale is measured, but at different times and the aim is instead to predict the outcome (Streiner, Norman & Cairney, 2015; Polit & Beck, 2016).

Construct validity is the degree to which an instrument measures the construct under investigation (Polit & Beck, 2016; Field, 2018). Construction validation can be divided into four types. Convergent validity involves seeing how closely a measurement method is related to other variables and other measurement methods on the topic that it should be related to, while discriminatory validity concerns how a measurement method does not correlate to irrelevant variables that it should not be related to. Known-groups validity means that two very different groups use the same instrument, where one group has the characteristics and the other does not. The first group should have significantly higher or lower scores for the new instrument than the second group. Cross-cultural validity concerns the extent to which an adapted translated instrument is equivalent to the original instrument. Construct validity investigates whether an instrument apprehends the hypothesised dimensionality of a construct (Streiner et al., 2015; Polit & Beck, 2016). Construct validity is assessed by expert evaluation (Polit & Beck, 2016; McDowell, 2006). Factor analysis (FA) can be applied when assessing the construct validity by demonstrating an association between components measuring the same topic. Using patterns of intercorrelations among the answers to each item, the analysis identifies the factors that seem to measure mutual themes, with each factor being separate from the others (Mokkink et al., 2010; Field, 2018).

A second important aspect when testing the psychometric properties of an instrument is reliability. Reliability is the extent to which an instrument is free from measurement errors and the degree to which the points given are the same for repetitive measures under diverse conditions (Mokkink et al., 2010; Polit & Beck, 2016). There are three types of reliability. Interrater reliability establishes the correspondence of assessments attained with an instrument when various observers used it. A reliable instrument will result in consistency between various raters. Test-retest reliability is determined by performing a test with an instrument at two different points in time to the same participants and then compare the association between the two sets of scores (Kimberlin & Winterstein, 2008; Polit & Beck, 2016). Internal consistency measures the extent to which items in a questionnaire are correlated and measure the same concept. Internal consistency is an important measure of a questionnaire aimed at measuring a single underlying concept through the use of multiple items (Terwee et al., 2007; Polit & Beck, 2016). Cronbach's Alpha is a generally used index that performs approximations of the internal consistency of a measure with several subparts (Streiner et al., 2015; Polit & Beck, 2016).

In addition to determine validity and reliability, an evaluation of the utility of an instrument is important. Utility involves the potential of an assessment for application in a practical setting. One aspect of utility involves the clinical relevance of the assessment, or the potential for supporting decision-making in the intervention process and enhancing communication in clinical practice. A second aspect of utility involves the instrument's potential for implementation, and includes the concepts of transferability, feasibility and cost/benefit ratio. Transferability involves the administrative structure and the time needed to implement the assessment. Feasibility involves the availability of resources for implementing the assessment within the organisation, such as administrative support. The cost/benefit ratio refers to the costs and benefits of implementing the assessment. A third aspect is scientific merit, and refers to the body of research available that addresses for example validity and generalisation (Polit & Beck, 2004; 2008).

RATIONALE OF THE THESIS

Sweden has become a more diverse society in recent decades due to an increased number of foreign-born residents (SCB, 2018). Cultural diverse populations enhances the requirements for the healthcare system and its professionals to assure suitable services for foreign born clients. For culturally diverse populations to get access to healthcare, one important facet is the cultural competence of healthcare systems. Cultural competence has the potential to refine the effectiveness of care by reducing unnecessary assessments or inappropriate use of services (Anderson et al., 2003). Cultural competence training of health professionals is a potential way to improve quality of care and to reduce health discrepancies.

Occupational therapists are one group of health professionals that need to improve their cultural competence. In order to do this, occupational therapists must seek a comprehensive understanding of foreign-born clients by developing knowledge and interpersonal skills for facilitating encounters. This may lead to a more person-centred practice when developing treatment plans for foreign-born clients.

A self-rating assessment measuring cultural competence may support occupational therapists, as an example of health professionals, in developing professional knowledge and skills when they encounter foreign-born clients. Since there is a lack of assessments in Sweden for measuring cultural competence for health professionals, there is a need to develop such an assessment. Research is therefore needed on instrument development in the Swedish context in the area of cultural competence.

AIM

General aim

The general aim of this thesis was to develop an instrument for health professionals by examining the psychometric properties and utility of the Swedish version of the Cultural Competence Assessment Instrument (CCAI-S) among occupational therapists.

Specific aims

Study I

To evaluate the content validity and utility of the Swedish version of the Cultural Competence Assessment Instrument (CCAI-S) among occupational therapists.

Study II

To examine the clinical relevance, construct validity and reliability of the Swedish version of the Cultural Competence Assessment Instrument (CCAI-S) among Swedish occupational therapists.

METHODS

Method description

This thesis is based on two studies using both qualitative and quantitative methods for developing an instrument for health professionals. The translation process of the instrument is presented. In addition, the design, population, data collection and data analysis are described as well as ethical considerations.

Translation process of the CCAI-S

Permission was obtained from the developer Professor Yolanda Suarez-Balcazar to develop the CCAI in order to make it available for use in Sweden. The translation and cultural adaptation of the CCAI into the Swedish culture (CCAI-S) were guided by the steps described by Beaton, Bombardier, Guillemin and Ferraz (2000). The steps are 1) translation, 2) synthesis, 3) back translation, 4) expert committee review and 5) pretesting. Each step has sub steps, which give more information about how the translation should be conducted. The goal of the translation was equality between the translated version and the original American version. The author (Jane Holstein) and two researchers (Anette Kjellberg and Gunilla Liedberg) are native Swedish speakers, who worked on the translation process into Swedish by analysing each item and all the questions in the instrument concerning the Swedish language and context. The author and the two researchers translated the questions and items individually. Through several meetings held in discussion format, the author and the two researchers reached a consensus in terms of wording and cultural adaptations. One cultural adjustment involved altering race to ethnicity in the instrument. In Sweden, the concept of ethnicity is used in official documents for example the Swedish Discrimination Act (SFS:2008:567), as well as in everyday speech. Moreover, cultural adaptations in the instrument were made regarding questions on the structure of healthcare and educational systems. A back translation into English was carried out by a bilingual, native English translator. The translator had no previous understanding of the CCAI. According to Beaton et al. (2000), is it important that one of those translating the original instrument into the new language is not familiar with the

basic concepts that are included to ensure proper translation. A comparison between the back-translated version and the original version was made by the author and the two researchers, and in terms of specific wording a few adjustments were made. The revised back-translated version was then sent to the original author of the instrument, who approved it. The CCAI-S was pilot-tested in study I in the initial focus group. This resulted in modifications in the demographic section. These modifications were considered as not being too extensive and led to that the first focus group became included in study I. The modifications were included in the CCAI-S for the three forthcoming focus groups as well as in study II.

An overview of the design, participants, data collection and data analysis is presented in Table 2.

Table 2. Overview of design, population, data collection and analysis of studies I-II

Study	Study design	Study population	Data collection	Data analysis
I	Descriptive and explorative design	Occupational therapists n= 19	Focus groups	Qualitative content analysis
II	Cross-sectional design	Occupational therapists n=428	Web based questionnaire	Descriptive statistics, Exploratory factor analysis, Confirmatory factor analysis, Cronbach's Alpha

Participants and procedure

Study I

To reach occupational therapists working with children, adults of working age and the elderly, purposeful sampling according to Patton (2015) was used. This ensured variations and different experiences among the occupational therapists concerning cultural competence. To reach occupational

therapists, gatekeepers (Aspers, 2011) were contacted. The gatekeepers represented different work areas from two larger cities in the south of Sweden. They were contacted by e-mail or telephone and asked to forward an information letter to potential informants according to the inclusion criteria: 1) occupational therapists working with children, adults of working age or the elderly, and 2) had had contact during the past year with foreign-born patients/clients, and were regarded as experts because of their experience. Gatekeepers forwarded information and e-mail addresses regarding potential and appropriate participants to the author. The information letter presented a number of dates for focus groups, from which participants could choose. Several reminders were sent via e-mail, and the period for the potential participants to respond was extended numerous times to offer more possibilities to participate in a focus group. Twenty-four occupational therapists consented by e-mail to participate. The participants received the CCAI-S by e-mail in advance to fill it in and bring to the focus group. Five were unable to attend the focus groups. A total of 19 occupational therapists participated, divided into four focus groups. The focus groups consisted of four to five persons each, and were conducted between August 2015 and May 2016. The ideal size is, according to Krueger and Casey (2015), between five and eight members in a focus group, even though four to six members has become more common.

The 19 participants' ages varied between 27 and 55 years. The majority of the participants had a bachelor's degree. Most of the participants were women (n=17). Eight participants had up to five years of work experience, four had 6-15 years and six had 16-30 years (missing data n=1). The working areas of the participants were children (n=2), adults (n=8) and the elderly (n=9). The majority of the participants were born in Sweden (n=16).

Study II

A database of 6174 registered occupational therapists was available from the Swedish Occupational Therapy Association. A random sampling, based on the database, generated 1116 participants for the study. The first inclusion criterion was the working areas for the occupational therapists in the database that consisted of $\geq 1\%$ members. This resulted in 13 of 20 working

areas, for instance geriatric care, primary care and paediatric rehabilitation. A web survey link was sent via email to the 1116 occupational therapists. The second inclusion criterion for participating in the study was occupational therapists who had met foreign-born persons in their clinical practice during the past year. The respondents reported this information in the survey, and a selection according to the second inclusion criterion was made after the web survey had been returned. Three reminders were sent out by e-mail. Further, a fourth reminder in the format of a postal survey was distributed. This reminder was sent to respondents' home addresses and included the survey, a cover letter and a stamped return envelope. In total, 428 respondents answered, giving a response rate of 38%. The number of respondents who completed the survey was 314, and 114 respondents answered section one consisting of seven questions regarding demographics. The data collection took place between April 2017 and August 2017.

The 314 participants varied in age between 22 and 73 years. The majority (97%) were women. Most of the participants had a bachelor's degree. The number of working years showed a predominance of 11-30 years.

Data collection

To collect data, an interview guide was used in study I and a web-based questionnaire was used in study II. Both the interview guide and the web-based questionnaire were based on the CCAI-S, with supplementary questions related to content validity, construct validity and utility.

Study 1

The author was the moderator and one of the researchers was the co-moderator of the focus groups. A focus group is a small group of people with definite characteristics that distribute qualitative data in a focused discussion to support the understanding of the area of importance (Krueger &

Casey, 2015). In this study, the participants were occupational therapists with experience of working with foreign-born clients. The focus for the moderator was to create a welcoming environment for the participants that encouraged them to share their understanding and experiences (Dahlin-Ivanoff & Hultberg, 2006; Krueger & Casey, 2015) of cultural competence in discussing and testing the CCAI-S. Dahlin-Ivanoff and Hultberg (2006) emphasise interaction as the centre of a focus group. At the end of each focus group, the completed instruments were collected from the participants. These instruments were used to compile demographic data on the participants and to collect written comments from the participants in connection with each item. A Dictaphone was used to record the focus groups. To ensure an understanding of which participants said what in the focus group, a video camera was also used, as approved by the participants. Each focus group lasted approximately 90 minutes. All four focus groups were performed at university premises. The author transcribed all the interviews from the focus groups verbatim.

An interview guide was developed to form a systematic structure for the focus group discussions. It was pilot tested in connection with the first focus group and there was no need for adjustments. Content validity (McDowell, 2006) and utility (Polit & Beck, 2004, 2008) were the theoretical foundation for the guide. Inspiration on how to moderate and respond to the participants during the focus group sessions for the moderator was based on suggestions from Krueger and Casey (2015). The guide included an initial open-ended question to start up the discussion among the group members about their comprehension of culture and ethnicity. This is called a funnel based strategy, and it means that free discussion is emphasised at the beginning of each group with a less structured approach before moving towards a structured discussion with specific questions (Morgan, 1997). The question was used to encourage the participants to express their opinion on these concepts and their first thoughts about it. They first reflected individually in writing, and then the whole group discussed the concepts together. This was a way to establish the topic and its relevance for the forthcoming discussion of the instrument. Next, the interview guide followed the sequence of questions and items in the CCAI-S, consisting of three sections. The first section had seven questions on demographics, the second section had nine questions on for example perceived level of cul-

tural competence, and the third section involved the 24 items. The participants had the opportunity to express whether they thought there was anything missing or problematic within each section. This was a way to assess the content validity of these questions. After this, the investigation of each item was done systematically. Every single item was presented with accompanying questions, with a focus on meaning, linguistic clarity, relevance and representativeness regarding the item to the participants in order to test content validity. When all 24 items had been reviewed, the participants were requested to reflect orally, in relation to cultural competence, on whether any important items were lacking. Concerning the six-point Likert scale used in the instrument, the participants had the opportunity to comment on its applicability. Finally, the interview guide had questions regarding the utility of the CCAI-S. These questions had a focus on clinical relevance and implementation potential for the instrument. Participants were able to give general comments on the utility and if they had specific examples of when and where to use the instrument in clinical practice.

Study II

In study II, the web-based questionnaire was based on the questions (described in the background see section Cultural Competence Assessment Instrument) and items (Table 1) in the CCAI-S. Instructions on how to fill out the questionnaire and definitions regarding cultural competence and ethnicity were added. In addition to the instrument, one question concerned the general relevance of an instrument on cultural competence and was formulated: “Would you consider a self-assessment instrument that measures cultural competence among occupational therapists useful?” This was a way to gain a general perception of the relevance of an assessment regarding cultural competence from all participants, including those who had not encountered foreign-born clients during the past year and did not meet the second inclusion criterion. The occupational therapists who did not fulfil the second criterion finished the survey after this question and sent it in.

The participants who met the second criterion continued to answer the questionnaire with the 24 items on a six-point Likert scale, where 6 corresponds to “strongly agree” and 1 to “strongly disagree”. A question regarding clinical relevance was also formulated – “How relevant is the statement for assessing cultural competence?” – and was supplemented to each of the items. In addition, three utility questions were formulated, based on the participants’ examples of clinical relevance from study I. The first of these question read: “After completing the assessment, how can the occupational therapist utilise the instrument in their encounters with foreign-born persons?” According to the occupational therapy process, this question was divided into four sub-questions such as when formulating goals and when evaluating. The next question was “After completing the assessment, how can the teams/workgroups/colleagues utilise the instrument in their encounters with foreign-born persons?” The respondents had the opportunity to choose multiple options. The options included: “To get a basis for discussion in the group regarding cultural competence and ethnicity in relation to patients/clients”. The final question was “After completing the assessment, what utility may the organisation have when staff have utilised the instrument in their encounters with foreign-born persons?” Again, the participants had the opportunity to choose multiple options. One example of an option was if the CCAI-S could provide support for educational efforts and skills development.

Data analysis

Study I

Analysis of content validity

The transcribed data on the opening question regarding culture and ethnicity was used to recapitulate the participants’ overall understanding of these concepts. The emphasis was on comprehension, which mirrored the opinion of the entire group, according to Sim (1998). Content validity was analysed in relation to each item in the transcribed data. The analysis of content validity was supplemented by analysing the collected instruments the participants had completed before attending the focus groups. In these instruments, they had the opportunity to comment on anything of interest

that was related to the understanding or meaning of the questions and items. The author and two researchers conducted their own analysis, in parallel, which was followed up by a critical dialogue until consensus concerning the results was reached (Polit & Beck, 2016). The analysis was carried out through 1) comparing similarities and differences between the focus groups' remarks on each item, 2) a comparison of similarities and differences between commentaries in the collected instruments, and finally 3) comparing similarities and differences between focus groups and collected instruments. The qualitative analysis underlined the level of understanding, relevance, linguistic clarity, representativeness and deviations from the concept of cultural competence, and whether there was a need for supplementary items.

Analysis of utility

To analyse data from the focus groups, qualitative content analysis was used based on the steps described by Graneheim and Lundman (2004) with the focus on the manifest content. To obtain an overall understanding of the material, the author read through transcripts from the focus group data several times. Text concerning the utility of the instrument was extracted for analysis by the author. The text had a focus on clinical relevance, for instance support in treatment planning and potential for implementation. The author read and analysed the text extracts line by line. Meaning units were identified, i.e. sentences which contained relevant information in relation to the aim of the study. The meaning units were then condensed, i.e. shortened with the essence of the content preserved. Then the meaning units were coded and grouped into categories. The encoding process was iterative when obtaining homogeneous categories. This was supported by discussions with the author and three researchers on similarities and differences between the categories. After the data had been completely categorised, the transcripts were re-read by the author, together with the categories, in order to confirm the findings. To reach trustworthiness regarding the categorisation, discussions were conducted between the author and the researchers until consensus was reached (Breitmayer, Ayres, & Knafl, 1993). Two categories emerged from the analysis. To verify the results, quotations from the focus groups are

presented in the results, using the abbreviation FG1 for the first focus group, etc.

Study II

Statistical analysis was performed with statistical package IBM SPSS Statistics and AMOS (version 24.0; IBM Inc., New York, USA). The demographic data and utility questions were analysed by performing descriptive statistics. In the study, >50% was stipulated for interpreting the result as being positive for the CCAI-S's use in practice.

Regarding sample size for FA, there are varied opinions, but the minimum sample size should be the number of items in the instrument multiplied by three (Mundfrom, Shaw & Tian Lu, 2005). In the current study, this means $24 \times 3 = 72$ as the smallest sample size. A total of 314 respondents completed the survey. However, 26 surveys were excluded due to missing responses, yielding 288 in total. To test sample adequacy, the Kaiser-Meyer-Olkin (KMO) test was applied, and a KMO above 0.60 is an acceptable value (Field, 2018). The Bartlett's test of sphericity was also applied to test whether the variables are related, and values less than 0.05 of the significance level indicate that the data is suitable for FA (Field, 2018).

The sample (n=288) was randomly divided into a subsample (n=144) as described by Bollen (1989) and Dragioti, Wiklund, Alföldi and Gerdle (2015). Moreover, to investigate whether the correlations are equal across the samples, Bartlett's test of sphericity was applied. If the test displays a significant level of 0.05 or lower, this implies the items are equally correlated and will ensure the possibility to perform an FA (Field, 2018). To test construct validity of the CCAI-S, Explorative Factor Analysis (EFA) was performed by applying the principal component extraction method with varimax rotation in the subsample (Field, 2018; Goodwin, 1999; Polit & Beck, 2016). A common method is to start analysing with EFA and confirm the factors with Confirmatory Factor Analysis (CFA) (Brown, 2015). Example of such an analysis are found in studies by Dragioti et al. (2015) and Suarez-Balcazar et al. (2011).

In the initial EFA, seven factors were extracted with 24 items. Nevertheless, two of these seven factors had cross loadings to other factors and consisted of only two items each. This directed the decision to perform sequences of EFA to eliminate redundant items from the CCAI-S. An iterative procedure to determine the number of factors and the number of items in each factor was achieved. The criteria used for this process were: a minimum value of ≥ 0.40 for inclusion within a factor; a minimum eigenvalue >1 for each factor and Cronbach's alpha (CA) coefficient ≥ 0.60 , for the detected factor model and for each factor (Field, 2018; Child, 2006; Polit & Beck, 2016). This process resulted in a three-factor model with 12 items. The three factors were given labels based on the weighted combinations of the items in each factor (Polit & Beck, 2016).

To confirm or disregard the three-factor model proposed in the EFA, CFA was applied to the sample ($n = 288$) using the maximum likelihood procedure. This technique was used in order not to recycle the data in the same dataset since EFA and CFA aim at different outcomes (Polit & Beck, 2016). The three factor-model was analysed based on Chi-square and the degrees of freedom score (CMIN/DF), and results lower than 3.0 were measured as good (Bollen, 1989; Brown, 2009; Brown, 2015). The Confirmatory Fit Index (CFI) has a threshold of .95 or higher. The goodness of fit index (GFI) threshold is .95 or higher, 1.0 indicates a perfect fit. The adjusted goodness of fit (AGFI) threshold is .80 or lower. The Standardised Root Mean Square Residual (SRMR) must be lower than 0.9. The Root Mean Square Error of Approximation (RMSEA) has a threshold of 0.5. P of close fit (PCLOSE) explains if the p is greater than .05 (i.e., not statistically significant), with a threshold of 0.5 and over. Using Cronbach's Alpha statistics, the internal consistency reliability coefficients were calculated (Field, 2018). A level of $p < 0.05$ was seen as statistically significant for the CFA.

Ethical considerations

The Declaration of Helsinki (2013), including the ethical principles governing confidentiality, the voluntary nature of the study and the requirement for informed consent, was followed. All participants in study I and II provided written informed consent to participate and information about how their anonymised data would be used. The participants were also informed about the purpose and design of the studies. Further, the participants were provided with contact information for the author and the two researchers in the information letter for study I and II in case any questions arose. In addition, to ensure the confidentiality of the participants' personal data, the transcripts and digital files were anonymised. The data was kept in a locked cabinet and only the author had access to it. Since the purpose of the studies posed no psychological or physical risk for the participants and no data regarding the participants' private conditions was collected, ethical approval for the studies from an official research ethics committee was not required (SFS 2003:460).

From the starting point with the translation process of the CCAI into Swedish and throughout the research process for the two studies several considerations have been made. One of the important issues have been regarding the choice of concepts that would be the most appropriate to be used in Sweden from a legal, ethical and cultural perspective. The considerations have been based on the Declaration of Helsinki (2013) that it is stated that research must be considered in relation to laws and regulations in the country where the research is conducted. In addition, the Swedish law of ethical research involving humans (SFS 2003:460) have also been followed to in the analysis of selections of concepts.

Even after the two studies have been completed, the choice of concepts have been continuously analysed. This has resulted in that the concept that has been used in study I when describing demographic characteristics, the concept "ethnic background" is altered. This is now changed to "continent/country of birth" since "ethnic background" may be interpreted as a

being a potential ethical risk for harm someone and be stigmatising. To expose someone for this has not been the intention from the author's and researchers' point of view. These types of critical reviews of the concepts in the CCAI-S that are going to be published is required and need to be regularly recurring since it is a new assessment instrument in Sweden. Several adaptations will be conducted for further improving the use of CCAI-S in a Swedish context.

RESULTS

The main results from studies I and II are presented in this section.

Study I

The content validity and the utility of the CCAI-S are presented.

Content validity

Based on the opening question in the focus group, the participants discussed culture in terms of context, community and groups in which people live their lives. Participants expressed opinions that different norms, beliefs, agreements and values exist in diverse cultures. This is transferred from generation to generation. Ethnicity was described by all focus groups as the background and the origin or country from where an individual comes. Participants also expressed that people can have the same ethnic background but different cultures. The written comments the participants gave on culture and ethnicity were in agreement with the 24 items included in the instrument. They considered them to be representative and relevant for cultural competence. Besides this, no items were suggested to be added or removed. The specific comments from the participants on each item resulted in suggestions for alterations. These suggestions were in terms of improving the clarity of six items, for example by using examples and reformulations. The six items in need of clarifications were equally distributed, with two items in each factor. The six-point Likert scale was regarded as relevant by the participants. Improving the content validity of the instrument could be achieved by adding instructions on how to fill in the instrument as well as by adding a definition of cultural competence to the introduction. Recommendations were made on altering the demographic section to include only continents, since the participants reported difficulties in determining which countries clients were born in.

Utility

Two categories regarding utility emerged. In the category “Interactions with clients”, the focus group participants described how the CCAI-S could be utilised individually to increase awareness about strengths and weaknesses in everyday situations with foreign-born clients. In the category “The workplace and its organisational support”, the participants recognised that the CCAI-S could be utilised in the workplace and that organisations could support the improvement of cultural competence among practitioners.

Interactions with clients

All participants stated that the CCAI-S was clinically relevant at an individual level, since it motivated reflection on interaction experiences with foreign-born clients. Most participants described that the CCAI-S helped them reflect on difficulties and strengths in their professional practice regarding ethnicity and related areas requiring enhancement. *“I think it is quite a good instrument for making me think about ethnicity and discovering where my difficulties or my strengths are.”* (FG1)

Almost all participants demonstrated awareness of adapting to clients’ cultural celebrations in professional decision-making as well as in the interaction with the client, when discussing the following item in the CCAI-S: “My workplace does not support my participation in cultural celebrations of my clients”. All participants proposed that the CCAI-S could be utilised and give support to the therapist during the occupational therapy process for instance in selecting the most relevant intervention and in the interaction with the client. This was evident when discussing the items on communication.

Almost all participants described familiar situations involving food, including several interventions, when discussing the following item: “I do not consider the cultural backgrounds of my clients when food is concerned”. Difficulties in making appropriate assessments and suitable adjustments to the clients’ culture were expressed.

The workplace and its organisational support

The potential for implementation of the CCAI-S in different workplaces was highlighted by all participants. Using the CCAI-S could capture the need for support from the organisation in the area of cultural competence. All the participants reported that the CCAI-S could be utilised in their particular workplace, and gave examples of further workplaces where it could be utilised, such as schools, employment offices and social security offices. Educational occupational therapy programmes and teams of various health-professions were other areas suggested by the participants.

Ideas for implementing the the CCAI-S in a workplace was proposed by most of the participants. First, the existing situation of the workplace in terms of cultural competence should be measured using the CCAI-S. Then specific educational activities such as logbooks, lectures and discussions should be performed, aiming to increase cultural competence. Finally, a follow-up measurement and a comparison with the first measurement will show if there are any alterations in their cultural competence.

All participants noted that they had become more aware of whether they received cultural support from their organisation when discussing the following item: “My organisation does not provide ongoing training on cultural competence”. The knowledge participants had regarding cultural competence had been acquired informally through experience and practical learning in cultural encounters with people from other countries. Their knowledge was not based on formal education provided by the organisation. *“If I acquire cultural competence [education] through my organisation, maybe I’ll act better in meetings with my client, but that’s a step the organisation has to take.”* (FG4)

All participants stated that the CCAI-S had shed light on the importance of engaged managers who recognise the need for cultural competence amongst their staff. Most of the participants had experiences of managers who did not prioritise cultural competence. All participants stated that the CCAI-S made them realise that there was no specific policy goal related to cultural competence in their organisation. This was identified when discussing the following item: “Cultural competence is included in my workplace’s mission statement, policies and procedures”.

The participants felt supported by the organisation when they had opportunities to learn and obtain feedback from colleagues on cultural skills. This was detected in connection with several items in the CCAI-S. All participants had varying experiences of this type of support. Interpreters can for example be viewed as a resource for communication in the organisation and can indicate whether support is available, and two items in the CCAI-S involved the use of professional interpreters.

Another resource available in the workplace could be pictures and printed materials, and how they mirror the clients' culture. One item specifically highlighted this area. Participants stated that such materials was generally lacking. Written information on exercises and assistive equipment in relevant languages for the clients was frequently incomplete, according to all participants, although some had brief translations in a couple of languages. If the information was available, it seldom reflected the patients' cultures. Some participants felt hindered by the lack of tools in the work setting, and made their own endeavours to translate materials using a variety of Internet tools. In connection with the item on participation in clients' celebrations, some participants felt that the organisation delivered support to adjust timetables to clients' festivities when conducting home visits.

Study II

Construct validity

Low partial inter correlations between items was indicated by the KMO index as .813. The Bartlett's test of sphericity was $\chi^2 = 470,66$; $DF = 66$; $p < .000$, which showed satisfactory factorability. Three factors that explained 57.2% of the total variance were extracted in the EFA. Principal axis factoring as the extraction method with promax rotation and varimax rotation was also applied. This yielded equivalent results to the principal component extraction method and varimax rotation. Eigenvalues, proportions of variance for the three-factor solution and the factor loadings of the items, are presented in Table 3.

Table 3. EFA with factor loadings based on varimax rotation (n=144).

Items	Factor loadings			Cronbach's Alpha
	I	II	III	
Factor I Openness and awareness				0.793
I openly discuss with others issues I have in developing multicultural awareness. (Item 1)	0.748	0.218	0.067	
I examine my own biases related to ethnicity and culture that may influence my behaviour as a service provider. (Item 3)	0.737	-0.155	-0.001	
I feel that I can learn from my ethnic minority clients. (Item 6)	0.696	0.101	0.279	
I learn about different ethnic cultures through educational methods and/or life experiences. (Item 2)	0.683	0.309	0.235	
I actively strive for an atmosphere that promotes risk-taking and self-exploration. (Item 4)	0.672	0.274	0.081	
Factor II Workplace support				0.644
I receive feedback from supervisors on how to improve my practice skills with clients from different ethnic minority backgrounds. (Item 14)	0.107	0.755	-0.091	
Cultural competence is included in my workplace's mission statement, policies and procedures. (Item 9)	0.069	0.713	0.328	
At work, pictures, posters, printed materials and toys reflect the cultures and ethnic backgrounds of ethnic minority clients. (Item 13)	0.118	0.554	0.201	
I have opportunities to learn culturally responsive behaviours from peers. (Item 16)	0.428	0.513	0.065	

Factor III				0.688
Interaction skills				
I would find it easy to work competently with ethnic minority clients. (Item 19)	-0.070	0.298	0.774	
I am effective in my verbal communication with clients whose culture is different from mine. (Item 17)	0.243	-0.093	0.772	
I am effective in my nonverbal communication with clients whose culture is different from mine. (Item 18)	0.233	0.198	0.701	
All 12 items				0.809

Factor I: eigenvalue, 4.039; variance proportion, 33.660; cumulative proportion, 33.660.

Factor II: eigenvalue, 1.565; variance proportion, 13.039; cumulative proportion, 46.700.

Factor III: eigenvalue, 1.262; variance proportion, 10.514; cumulative proportion, 57.214.

Factor I was titled ‘Openness and awareness’. Five items emerged with high loadings (0.748; 0.737; 0.696; 0.683; 0.672). Three items concerned openness: willingness to discuss with other practitioners, learning through educational methods and learning from experiences with clients. Two items related to awareness: actively striving for self-exploration and examining biases that influence behaviour. Factor II was labelled ‘Workplace support’, with four items with high loadings (0.755; 0.713; 0.554; 0.513). Two items reflected how materials, pictures and goals in the work place could support cultural competence. Two items focused on support from colleagues in the workplace regarding feedback on practice skills and opportunities to learn cultural competence. Even though one item, “I have opportunities to learn culturally responsive behaviours from peers”, had sufficient loadings (0.428) for factor I, the loading (0.513) was slightly higher for factor II. The conceptual fit for this item is strongly related to factor II and is therefore interposed in this factor. Four items were saliently loaded in terms of factor III, and are labelled as ‘Interaction skills’. Three items were jointly loaded with the highest loadings for all items in a factor (0.774; 0.772; 0.701), compared to the items in factors I and II. Two items in the factor focused on nonverbal and verbal communication skills. One item was associated with the ease of working competently with clients.

EFA proposed a three-factor model, which was confirmed by CFA showing absolute fit. CMIN/DF was 1.65 and was measured as “acceptable” since it was lower than 3.0 (Bollen, 1989; Brown, 2009; Brown, 2015). CFI was .95 and was measured as “acceptable”. GFI was .95 and was considered good since the value of 1.0 indicated a perfect fit. AGFI was .95 and was considered low but acceptable. SRMR was 0.05 and was considered acceptable because it was lower than 0.9. RMSEA was 0.47, which was close to the threshold of 0.5 and was interpreted as good. According to PCLOSE the model was .57 and over the threshold of 0.5, so the fit of the three-factor model was “close”.

Further, associations among the three latent variables were demonstrated in the three-factor model. The association between the factors ‘Openness and awareness’ and ‘Workplace support’ was .62. Correlation in relation to ‘Openness and awareness’ and ‘Interaction skills’ was .60. The association between ‘Workplace support’ and ‘Interaction skills’ was .51. These correlations were in harmony with the simple item correlations.

Internal consistency

The internal consistency of the 12 items together was supported by Cronbach’s alpha: 0.81. The internal consistency of each of the three factors was established by following Cronbach’s alpha coefficients: Factor I ‘Openness and awareness’: 0.79; Factor II ‘Workplace support’: 0.64; Factor III ‘Interaction skills’: 0.69. These levels were considered good (Field, 2018).

Utility

Seventy-nine percent of the respondents who had served foreign-born clients during the past year reported that it was useful to have an instrument regarding cultural competence. Eighty percent of the respondents who had not met foreign-born clients during the past year stated that an instrument measuring cultural competence would be useful. Overall, the participants reported “very relevant” or “relevant” for all of the 24 items.

In the factor ‘Cultural awareness and knowledge’, five out of eight items were measured as “very relevant”/“relevant” by 90% to 96% of the participants. Two items were considered “very relevant”/“relevant” by 85-89% of the participants, while one item was rated by 77% of the participants as “very relevant”/“relevant”. The factor ‘Organisational support for multicultural practice’ showed a variable distribution concerning the clinical relevance and was measured by 71-91% of the participants on the eight items. One item, “My workplace does not support my participation in cultural celebrations of my clients” was considered by 53% of the participants to be “very relevant”/“relevant”. Three of the eight items in the factor ‘Cultural skills’ were rated by 90-95% of the participants as “very relevant”/“relevant”. The remaining five items were rated as “very relevant”/“relevant” by 81-87% of the participants. (Table 4).

Table 4. Clinical relevance and psychometric misfit¹ for the 24 items.

Items	Clinical relevance of item Very relevant /relevant (%)
FACTOR: CULTURAL AWARENESS AND KNOWLEDGE	
I actively strive for an atmosphere that promotes risk-taking and self-exploration. (Item 4) n=305	93
I examine my own biases related to ethnicity and culture that may influence my behaviour as a service provider. (Item 3) n=305	91
I openly discuss with others issues I have in developing multicultural awareness. (Item 1) n=307	90
I learn about different ethnic cultures through educational methods and/or life experiences. (Item 2) n=307	91
I feel that I can learn from my ethnic minority clients. (Item 6) n=310	85
ITEMS WITH PSYCHOMETRIC MISFIT	
I am sensitive to valuing and respecting differences between my cultural background and my clients’ cultural heritage. (Item 5) n=310	96
It is difficult for me to accept that religious beliefs may influence how ethnic minorities respond to illness and disability. (Item 7) n=306	89

I do not consider the cultural backgrounds of my clients when food is concerned. (Item 8) n=304	77
FACTOR: ORGANIZATIONAL SUPPORT FOR MULTICULTURAL PRACTICE	
Cultural competence is included in my workplace's mission statement, policies, and procedures. (Item 9) n=310	91
I have opportunities to learn culturally responsive behaviours from peers. (Item 16) n=306	80
I receive feedback from supervisors on how to improve my practice skills with clients from different ethnic minority backgrounds. (Item 14) n=310	77
At work, pictures, posters, printed materials, and toys reflect the culture and ethnic backgrounds of ethnic minority clients. (Item 13) n=310	74
ITEMS WITH PSYCHOMETRIC MISFIT	
My organization does not provide ongoing training on cultural competence. (Item 11) n=310	89
My workplace does not support using resources to promote cultural competence. (Item 10) n=307	84
The way services are structured in my setting makes it difficult to identify the cultural values of my clients. (Item 15) n=302	71
My workplace does not support my participation in cultural celebrations of my clients. (Item 12) n=300	53
FACTOR: CULTURAL SKILLS	
I would find it easy to work competently with ethnic minority clients. (Item 19) n=306	92
I am effective in my nonverbal communication with clients whose culture is different from mine. (Item 18) n=307	90
I am effective in my verbal communication with clients whose culture is different from mine. (Item 17) n=308	85
ITEMS WITH PSYCHOMETRIC MISFIT	
I feel confident that I can learn about my clients' cultural backgrounds. (Item 22) n=306	95
I feel that I have limited experience working with ethnic minority clients. (Item 20) n=305	90
It is difficult to practice skills related to cultural competence. (Item 21) n=299	83

I do not feel that I have the skills to provide services to ethnic minority clients. (Item 24) n=307	87
It is hard adjusting my therapeutic strategies with ethnic minority clients. (Item 23) n=308	81

Note: ¹ based on the factor loadings below 0.4

Participants were asked to rate the importance of CCAI-S in three utility questions. 72-78% of participants considered the CCAI-S “very useful” or “of great use”, in relation to assessing, formulating goals, and planning and implementing interventions and evaluations. This shows clinical relevance for the occupational therapist in practice. The utility of the CCAI-S for colleagues and teams when encountering foreign-born persons in clinical practice was measured positively by 78-87% of the participants. This shows clinical relevance for support in health professional teams. Finally, eighty-five percent of the participants viewed the CCAI-S as a contribution for providing effective meetings and practices in the organisation in relation to the clients. This shows the positive utility the organisation may have when the health professional have used the CCAI-S. A lower degree of clinical relevance (64%) was reported for the CCAI-S contributing to a more efficient use of resources, for example interpreters.

DISCUSSION

The general aim of this thesis was to develop an instrument for health professionals by examining the psychometric properties and utility of the CCAI-S among occupational therapists. The initial investigation of the content validity and utility of the CCAI in study I could be viewed as a first step in the development of the instrument. Study II continued this work, since it was based on a larger randomised sample of occupational therapists, with a focus on construct validity as well as the reliability and utility of the instrument. The combination of validity, reliability and utility complement each other and have several advantages. Instrument development in general focuses on the validity and reliability of the instrument in question (Streiner et al, 2015). In addition, it was also considered important to investigate whether the instrument could be applicable in the intended milieu. Utility includes the possibility of an assessment to be applicable in a practical setting and its potential to provide support in decision-making in the intervention process, as well as enhancing communication in clinical practice. Utility also includes the instrument's potential for implementation in practice and administrative support to accomplish this implementation (Polit & Beck, 2004, 2008). In study I, two utility aspects are in focus: clinical relevance and implementation potential. Study II focuses on clinical relevance as the utility aspect. The benefits of combining psychometric testing and examine utility are several. When it comes to traditional instrument development, good psychometric values determine if the instruments are of interest but there are instruments that are well-researched based on psychometric tests but still not are utilised in practice. In study I the results were positive regarding content validity and utility but it was a small group of participants. Study II was of importance for going further and test the CCAI-S in a larger group of participants. The combination of psychometric testing and examining utility increases the applicability of the CCAI-S in practice.

Discussion of the result

The results from studies I and II will be discussed in relation to the process of deciding on item selection and deletion in the upcoming CCAI-S. Finally, some of the items will be discussed.

The participants regarded 18 of the 24 items as relevant and representative of cultural competence agreement, showing high content validity in general (I). Six items were in need of improvement, and enhancing clarity, reformulations and the use of examples were suggested (I). Overall, no items were suggested to be removed or added (I). In terms of utility, all participants emphasised the potential for implementing the CCAI-S in teams with diverse health professionals and in occupational therapy programmes (I). The CCAI-S could also be used in different workplaces such as inpatient and outpatient wards, vocational rehabilitation and schools, since it could capture the need for support from the organisation in the area of cultural competence (I). The positive results yielded from study I regarding content validity and utility gave strong support for continuing the development of the CCAI-S with an increased sample size and statistical analysis. Content validity and utility in relation to the CCAI has not been investigated. Construct validity of the CCAI based on FA in a random sample of 477 occupational therapists showed strong psychometric support for the 24 items and the three factors (Suarez-Balcazar et al., 2011). In contrast, study II in this thesis revealed low construct validity for maintaining all the 24 original items in the Swedish version. To demonstrate robust psychometric support of the CCAI-S, several items had to be eliminated (II).

Five items in the 'Openness and awareness' factor in the CCAI-S were jointly loaded based on the FA (II). The CCAI had eight items in this factor (II), but referred to 'Cultural awareness and knowledge'. In relation to utility, five of these items were considered very relevant/relevant by 90% to 96% of the participants and three items were rated very relevant/relevant by 77-89% of the participants (II). Based on FA in study II, three items would be removed. In addition, since one item was measured to be of the highest clinical relevance, this item will also remain. Therefore, two items will be excluded from this factor of the CCAI-S (Table 5).

The ‘Workplace support’ factor in the CCAI-S comprises four items (II) and relates to factor ‘Organisational support for multicultural practice’ in the CCAI, which had eight items. The clinical relevance was rated between 71-91% by the participants for seven out of eight items (II). However, one item – “My workplace does not support my participation in cultural celebrations of my clients” – was rated by just 53% of the participants as clinically relevant (II). In addition, this item was reported in study I as being in need of clarification. Further, the FA showed low psychometric fit for this item. Consequently this item will be excluded from the CCAI-S based on the results from studies I and II. Three more items will be removed based on the items being negatively formulated and the results from the factor analysis. In total, only four items in this factor will remain in the CCAI-S (Table 5).

The “Interaction skills” factor includes three items in the CCAI-S, and these items were jointly loaded based on the FA (II). The CCAI had eight items in this factor labelled “Cultural skills”. 90-95% of the participants rated three of the eight items as “very relevant”/“relevant”, and the remaining four items were rated by 81-87% of the participants as “very relevant”/“relevant” (II). For example, the item “I do not consider the cultural backgrounds of my clients when food is concerned” will be removed because of the lack of conceptual fit (Ferrans and Powers, 1992) in comparison with the other items based on study I as well as FA (II). In conclusion, five items will be excluded from the Swedish version of CCAI based on decisions of factor loadings, overlapping items and negatively formulated items (Table 5).

In the process of deciding which items to retain in the CCAI-S, several important reasons had to be considered for the basis of item elimination. First, the reasoning was based on outcomes from the studies; FA from study II together with the suggestions for alteration of items from study I. Formulations of the specific items, such as negatively expressed items or overlapping items, were reviewed. Finally, the items also had to have conceptual fit (Ferrans and Powers, 1992) in the area of cultural competence. When Gozu and colleagues (2007) examined cultural competence instruments, they recognised challenges involving format and content that led to unclear or ambiguous items or items that requested more than one answer, or were difficult to interpret. In relation to the CCAI-S, this supports the

decision to scrutinise the items as described in the process of item elimination. As a result, 13 of the 24 original items will remain in the CCAI-S. Still, the three factors in the CCAI-S are in accordance with the original CCAI factors. In relation to the translation process of CCAI-S the steps by Beaton et al (2000) used are in general equivalent with steps to translate and cultural adapt an instrument presented by Gersing, Caplehorn and Clausen (2010). Gersing et al (2010) emphasise the importance to consider possible barriers when making a direct comparison between different nations, cultures and times. In CCAI-S, the authors realised some differences between the societal structure as well as certain wording not used in comparing USA and Sweden. Cultural adaptation is necessary when an instrument is developed into a new context. This will be further considered in the upcoming CCAI-S.

Table 5 shows the domains (i.e. factors) and items that will be included in the CCAI-S to be published and used in Sweden. Developing an instrument is an iterative process requiring several evaluations and tests in various settings and populations. Therefore further psychometric testing and utility studies on the CCAI-S are needed.

Table 5. Domains and items in the upcoming published version of the CCAI-S based on the results from study I and II.

Domain	Item
Openness and awareness	
	1. I openly discuss with others issues I have in developing multicultural awareness.
	2. I learn about different ethnic cultures through educational methods and/or life experiences.
	3. I examine my own biases related to ethnicity and culture that may influence my behaviour as a service provider.
	4. I actively strive for an atmosphere that promotes risk-taking and self-exploration.
	5. I am sensitive to valuing and respecting differences between my cultural background and my clients' cultural heritage.
	6. I feel that I can learn from my ethnic minority clients.

Workplace support	
	7. Cultural competence is included in my workplace's mission statement, policies and procedures.
	8. At work, pictures, posters, printed materials and toys reflect the culture and ethnic backgrounds of ethnic minority clients.
	9. I receive feedback from supervisors on how to improve my practice skills with clients from different ethnic minority backgrounds.
	10. I have opportunities to learn culturally responsive behaviours from peers.
Interaction skills	
	11. I am effective in my verbal communication with clients whose culture is different from mine.
	12. I am effective in my nonverbal communication with clients whose culture is different from mine.
	13. I would find it easy to work competently with ethnic minority clients.

Occupational therapists should advocate for clients with immigrant backgrounds and their families both at individual level and at institutional level, so that resources better meet the requirements of these clients (Lindsay et al. 2014). All participants noted that they had become more aware of whether or not they received support from their organisation in discussing the item “My organisation does not provide ongoing training on cultural competence” in the CCAI-S (I). In relation to utility for the organisation, the majority of the participants viewed the CCAI-S as a means of support for providing effective practices and meetings with patients/clients (II). If diversity and inclusion efforts are not expressed as a central part of the institution’s mission statement and profoundly rooted in day-to-day operations, the mission statement will be ineffective (Taff & Blash, 2017). The utility of the CCAI-S when encountering foreign-born persons in clinical practice for teams and colleagues was rated positively by the majority of participants, which supports high clinical relevance (II). According to Balcazar et al. (2009), organisational support appears to be a central reason for defining the ability of the healthcare practitioner to provide culturally relevant services, since practitioners do not function in a vacuum. The CCAI-S clarified the importance of engaging managers to recognise the need for cultural competence among their staff, although most managers did not prioritise this issue (I). Anderson et al. (2003) emphasise that

healthcare services regarded in the light of cultural competence must have written information and signage in accordance with clients' languages, cultural norms and culturally specific healthcare locations. This can relate to the item in the instrument, "At work, pictures, posters, printed materials, and toys reflect the culture and ethnic backgrounds of ethnic minority clients", highlighted the area of available resources in the workplace (I). Participants described this as being lacking in general, and that written information in different languages was insufficient, although some had brief translations in a few languages (I). This shows that CCAI-S may provide important input to both the organisation and the health professionals regarding the need for culturally adapted written information being available.

When items on communication were discussed, all participants proposed that the CCAI-S could provide support and be utilised during the occupational therapy process, and emphasised the importance of adjusting to cultural encounters (I). These items could involve the use of professional interpreters. According to a literature review with a focus on facilitators and barriers to cultural competence by Grandpierre et al. (2018), the consequence of language barriers were described by speech language pathologists, physical therapists and occupational therapists. Practitioners who were not able to communicate in the language of their patients felt limited since they could not deliver proper instructions and information. The impact of the progression of effective relationships with patients took longer to establish due to the difficulties communicating. In regard to the CCAI-S, this shows that the instrument itself cannot solve these issues but rather reveals problem areas in for example the interaction skills in the occupational therapists repertoire or workplace support. This can lead to a more concrete path towards developing cultural competence.

In terms of the utility of the CCAI-S in contributing to more effective use of resources such as interpreters, a lower degree of clinical relevance was reported (II). Language barriers in relation to patients hinder the provision of therapy and possibly affect compliance with treatment (Grandpierre et al., 2018). When immigrant patients in Sweden experience problems with communication and language, they require help from relatives or interpreters when visiting healthcare establishments (Seffo, Krupic, Grbic & Fatahi,

2014). The provision of relevant interpreters must be supported by the organisations (Balcazar et al., 2009) and be suitable in terms of minority languages and gender, for example (Hultsjö, 2005). Even though the CCAI-S captures the need for available resources such as interpreters in several items on communication, it seems that this question is connected to a wider issue within healthcare. According to Lundin, Hadziabdic and Hjelm (2018), there are weaknesses in organisational routines regarding interpreter service which must be resolved, and cultural awareness is needed to accomplish person-centred healthcare. It is recommended to develop guidelines for the use of interpreters in healthcare because there are shortcomings in the institutions' organisational routines to achieve the goal of equal and person-centred healthcare.

All participants reported that the CCAI-S encouraged reflection about prior personal experiences with foreign-born clients (I). This provided a foundation for discovering difficulties and strengths in professional practice, and areas requiring improvement. This supports the CCAI-S as clinically relevant on a personal level (I). In the cognitive domain of CCM (Balcazar et al., 2009), critical awareness consists of self-reflection that starts with the preparedness to question personal beliefs. In the model of cultural competency presented by Darawshah et al. (2015), there are similarities to CCM where cultural awareness and cultural preparedness can be viewed as the first two stages of developing cultural competence. These stages are crucial to start the process of cultural competence within the health professional. As a professional, being prepared concerning foreign-born clients may also be influenced as the encounter becomes more culturally relevant from the client's perspective, thus promoting participation.

General discussion

The CCAI-S is a self-assessment instrument. This can be problematic, since the assessment is subjective based on how healthcare professionals judge themselves. In a study of the American version of the CCAI, practitioners with experience with multicultural populations perceived themselves as having high cultural competence compared to those without such experience (Suarez-Balcazar et al., 2009). According to Gozu et al. (2007), a high rating of confidence in oneself may be based on a lack of awareness of the

person's limitations rather than on real capacity, or it could suggest arrogance. Nevertheless, according to Wells, Black and Gupta (2016) cultural awareness have to demonstrate the ability to assess and reflect on the impact of cultural interactions. This requires self-exploration and the ability to recognise when the judgemental self affects with the ability to be tolerant. In study I, the participants reported that the CCAI-S supported awareness of weaknesses and strengths in practical situations with foreign-born clients. This may support that performing a self-report instrument can be a starting point in the process of becoming more observant of cultural competence and related areas, and starting to evolve in terms of becoming more aware of biases.

The initial sections of the CCAI-S will be further scrutinized and culturally adapted based on the results from study I and II. For example one question requested information from the health professionals regarding the extent to which health professionals have encounters with foreign-born clients. Additionally, the participants were asked to specify which country or continent they were born in. These are examples that are in need for being more suitable in the Swedish context. Accordingly the sections in CCAI-S will therefore in the upcoming CCAI-S be further culturally revised and some of the questions will be removed.

The authors of the original CCAI suggest that research should be directed to detect the relationship between variables of perceived levels of cultural competence, experience with multicultural clients, and outcomes for these clients (Suarez-Balcazar et al., 2009). A few studies have examined the effect of cultural competence training on patient outcomes and revealed a positive relationship with patient satisfaction (Gozu, 2007). By engaging in reflexive practice and taking actions to promote equity in healthcare outcomes occupational therapists may contribute to the development of cultural competence in the healthcare system (Wray & Mortenson, 2011). The CCAI-S can be used as an instrument for identifying staff members' training needs regarding cultural competence. The provision of culturally competent services can increase health outcomes and improve the competence of all health professionals, which could result in better client satisfaction with services (Gozu, 2007). If a practitioner has the best intentions to increase his or her knowledge and behaviour in cultural competence but the

workplace does not address these issues, and for instance does not support relevant workshops, then the professional might not be successful in their efforts. Cultural competence is achieved gradually and the skills involved require up-to-date knowledge of healthcare services (Balcazar et al., 2009). Some questions in the initial sections of the CCAI-S focus on how the health professionals retrieved knowledge on cultural competence. In study I, it was reported that the knowledge participants had attained regarding cultural competence was not based on formal training from the organisation but was acquired through direct experience and practical learning in cultural encounters. If the health professionals receive organisational support, based on for instance CCAI-S, in formal training the development in cultural competence may be improved.

Educators in cultural competence generally have inadequate access to instruments that can assess the effect of cultural competence training (Gozu et al., 2007). However, in Sweden, a validated and reliable instrument is available within the area of cultural competence for nursing students: the Cultural Awareness Scale (CAS), where the focus is on measuring nursing students' cultural awareness. The results from a psychometric test of the CAS in Sweden showed that 35 items were valid and reliable for the target group of nursing students in the final semester. The items are grouped into five factors: general education experience, cognitive awareness, research issues, behaviours/comfort with interaction and patient care/clinical practice (Hadziabdic, Safipour, Bachrach-Lindström, & Hultsjö, 2016). The CAS is an instrument for nursing students and the CCAI-S an instrument for health professionals. The two instruments may be regarded as complementary, since the CAS focuses on students and the CCAI-S focuses on health professionals. Therefore, it would be of interest to examine if the CAS could be relevant to use for students other than nursing students, since educators in occupational therapy programmes probably face the same challenges as educators in nursing programmes in relation to promoting students' cultural awareness and cultural competence during education.

The mode of collaborating as described in the IRM (Taylor, 2008) can be of use and requires the therapist to offer the opportunity for choice, freedom and autonomy to the maximum degree possible in order to help the client to be an active and equal partner in the therapy process. In relation

to the mode of collaborating, cultural humility can be applied. Cultural humility is a strategy that can be useful for occupational therapists, and involves a critical awareness of their own assumptions, beliefs, values and prejudices as well as an understanding of how one's own perspective may be different from that of others (Hammel, 2013). Kutob et al. (2013) describe a practical model for training health professionals, in this case physicians, to facilitate cultural humility in relation to the client. When the Ask, Share, Compare, Negotiate (ASCN) model is applied it means to (1) ask questions in an openminded manner about the client's opinions of the reason of their illness and its treatment, (2) share the biomedical view on illness, (3) match the client's and health professionals' understandings of illness, and (4) negotiate a treatment strategy. These strategies show a practical way for health professionals to use cultural humility in encounters with foreign-born clients.

Methodological discussion

The major strength of the thesis is the combination of examining psychometric properties and the utility of the CCAI-S, and this will provide a reliable and solid foundation for the further development of the instrument in a Swedish context. The scientific quality of the studies in the thesis needs to be scrutinised.

Study I

In qualitative research, trustworthiness can be analysed by the concepts credibility, dependability and transferability (Lincoln & Guba, 1985; Graneheim & Lundman, 2004; Krefting, 1991). Regarding study I, all these qualities can be discussed. In choosing participants with different experiences, the possibility of shedding light on the research question from a variety of aspects increases and this improves credibility (Graneheim & Lundman, 2004). By presenting a rigorous description of the procedure and the process of analysing data, dependability was increased (Krefting, 1991). Transferability was enhanced with a rich presentation of the findings together with appropriate quotations (Graneheim & Lundman, 2004).

A focus group methodology (Krueger & Casey, 2015) was chosen in study I. The participants had a variety of experiences of encounters with foreign-born patients and could therefore assist each other in the conversation. The focus groups were mixed in terms of working years and experience, gender, workplace, which contributed to a diversity of opinions. The variety of participants improved the credibility of the study. Still, a limitation in this regard can be identified since only three of the participants were foreign-born and the remaining 16 were born in Sweden. This sample proportion can be seen as equivalent to the Swedish population in general, and according to SCB (2018) approximately 14.5% are foreign-born. However maybe extra nuances regarding the discussions in the focus groups may have been possible with a higher variety in of participants. The transferability of the findings in study I is limited due to the small number of participants (n=19).

Nonetheless, to facilitate transferability, the participants, procedure and data analysis have been described thoroughly in study I (Graneheim & Lundman, 2004; Krefting, 1991). Each focus group consisted of four to five participants. The overall variety of experience is reduced in a smaller group (Krueger & Casey, 2015). The outcome of the discussion in each focus group is governed more by the commitment of the participants than by the total number (Dahlin-Ivanoff & Hultberg, 2006). All focus groups were generally dynamic, with engaged members.

The selection of gatekeepers for inviting occupational therapists to the study can be considered as a limitation, since they may not have been fully aware of all potential participants or their range of knowledge concerning foreign-born clients. Still, the participants in the focus groups met the inclusion criterion of having been in contact with foreign-born clients during the past year. The author was the moderator for all focus groups, and ensured that the same structure and content were used in the four focus groups, and can be regarded as a strength in terms of the credibility of the study. Throughout the data analysis, dependability was addressed by the author and the researchers (Krefting, 1991). This was done by discussing all categories together until consensus was reached.

Study II

The quality of study II can be reviewed based on the COSMIN checklist. In the evaluation of an instrument, it is important to examine the selection of design, the participants and the statistical methods, as well as how validity and reliability have been tested for the instrument (Mokkink et al., 2010.) According to Terwee et al. (2011), the sample size of a study is excellent with 100 participants or good at 50 participants. In study II, 428 participants took part in the study regarding the descriptive statistics, even though the sample decreased to 288 for the FA. The statistical methods used in study II are common when these types of validity and reliability are to be tested. The COSMIN checklist recommends the use of factor analysis and Cronbach's Alpha (Mokkink et al., 2010), which were included in study II.

The response rate was 38%. In a comparable study of the American CCAI, the response rate was 48% (Suarez-Balcazar et al., 2011). This may show that, for Swedish occupational therapists, the challenge of working with foreign-born clients is a relatively new phenomenon compared to occupational therapists in the US. Another reason for the relatively low response rate might be that the instrument is not familiar to occupational therapists in Sweden and that cultural competence is a new area of research for this group of professionals in Sweden. The area in question could also be considered to be complex and sensitive (Hadziabdic et al., 2016), since cultural competence can be viewed as a critical area to reflect upon for health professionals such as occupational therapists. Regarding testing validity and reliability in the Swedish version of measuring cultural awareness in nursing students, the researchers described it as challenging to obtain consistent items in an instrument when it deals with complex and sensitive topics (Hadziabdic et al., 2016).

The web-based questionnaire in study II was estimated to take 20-30 minutes to answer and this can be viewed as a reasonable amount of time. However, some participants may have considered the web-based questionnaire extensive and time-consuming to answer. According to Polit and Beck (2016), the benefit of using questionnaires is the total anonymity for the respondents and the nonexistence of interviewer bias. This psychometric study generated a translated and validated instrument showing strong validity and reliability for use in a Swedish context. Regarding the generalisability of the study, the validation process was based on occupational therapists and it might be reasonable to assume that other health professionals have similar experiences of cultural competence. However, research needs to be performed to ensure the specific applicability for other professions besides occupational therapists. The study design used in studies I and II can represent a model for other international healthcare professionals when adjusting and validating the CCAI for other countries and cultures, i.e. focusing on psychometric properties and utility.

The translation and cultural adaptation of the CCAI-S into Swedish can be discussed in terms of revisions of wording. Because of the alteration that is

made in the description of demographics from “ethnic background” to “continent/country of birth” (study I) this will be changed in the coming CCAI-S. Based on the results of the two studies 13 items will be included in the CCAI-S.

Before the publication of the assessment instrument, the items and the sections in the CCAI-S will be further critically scrutinised and revisions of wording will be considered, for being congruent with Swedish law, regulations and culture. These measures will be implemented before the CCAI-S is launched for use in Sweden.

CONCLUSIONS AND IMPLICATIONS

Given the global phenomenon of migration, studies of cultural competence in Sweden for health professionals and the development of the CCAI-S have important implications. The psychometric properties and the utility of the CCAI-S were examined in the thesis. The results of the instrument development show that the upcoming published version of the CCAI-S can be a valuable self-assessment tool for health professionals who strive to improve in person-centred communication in encounters with foreign-born clients. This may presumably influence the effectiveness of the healthcare and enhance the evidence of interventions for foreign-born clients.

Health professionals such as occupational therapists can use the CCAI-S on an individual level to set goals relating to enhancing their cultural competence. Even if, for example occupational therapists, are interested in and enthusiastic about adjusting their practices to foreign-born patients, the organisation can either hinder or support the development of cultural competence. Employers may use the results obtained from the CCAI-S as a basis for giving employees opportunities to attend courses on cultural competence that fit the specific needs of the employees.

The CCAI-S can support the organisation in several ways. For example, multidisciplinary teams can use it to increase awareness and reflect upon issues related to cultural competence in their daily work. Occupational therapists, like other health professionals, are under pressure to adapt to the varying demands and demographic characteristics of all clients. This includes overcoming differences in language and culture based on migration and globalisation. The CCAI-S can be of assistance in identifying the main barriers within the organisation, and can serve as a guide for what to focus on to develop cultural competence.

The CCAI-S can also be used to evaluate courses on cultural competence for health professionals who serve foreign-born clients in their daily work. An initial completion of the CCAI-S at the beginning of the course with a

follow-up when the course is completed could serve as a way to evaluate the extent to which their competence has improved.

The CCAI-S can be used for several different professions in Sweden. However, more studies need to be performed to validate this. In addition, the CCAI-S can help health professional students to start developing cultural competence during their education so that they will be prepared to face the challenges in the area of cultural competence in practice.

This thesis can be seen as an important contribution to the area of cultural competence since the results showed high validity, reliability and utility for the CCAI-S.

FURTHER RESEARCH

Based on the thesis, there are areas where more research is needed:

- Examine psychometric properties and utility of the CCAI-S in different practice settings based on a randomised sample of diverse health professionals.
- Further psychometric testing for example concurrent validity of the CCAI-S in order to compare results from CCAI-S with some other valued instrument in the area of cultural competence that can be viewed as having a gold standard.
- Examine perceived levels of cultural competence for health professionals by using the CCAI-S.
- Examine how health professional students can increase their cultural competence by using the CCAI-S and what challenges they perceive in this area.
- Active involvement of foreign-born clients is desirable in further research. This will complement the professional perspective on the CCAI-S.

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SVENSK SAMMANFATTNING

Global migration generellt och även migration till Sverige har ökat de senaste decennierna. Denna utveckling påvisar behovet av att erbjuda god vård till alla medborgare i Sverige. För att stödja hälso- och sjukvårdspersonal, till exempel arbetsterapeuter, i att förbättra sin professionella kunskap i mötet med utrikes födda klienter, utvecklas nu ett självskattningsinstrument som mäter kulturell kompetens. Detta instrument skulle kunna förbättra en personcentrerad ansats och därigenom interventioner för utrikes födda klienter.

Det övergripande syftet med avhandlingen var att utveckla ett instrument för hälso- och sjukvårdspersonal genom att undersöka psykometriska egenskaper och användbarhet av den svenska versionen av CCAI bland arbetsterapeuter. Det specifika syftet för studie I var att undersöka innehållsvaliditet och användbarhet av den svenska versionen av Cultural Competence Assessment Instrument (CCAI-S) bland arbetsterapeuter. Studien hade en deskriptiv och explorativ design. Nitton arbetsterapeuter deltog, uppdelade i fyra fokusgrupper. Kvalitativ innehållsanalys användes för att analysera intervjumaterialet avseende innehållsvaliditet och användbarhet av CCAI-S. Det specifika syftet för studie II var att undersöka klinisk relevans, konstruktionsvaliditet och reliabilitet av den svenska versionen av CCAI-S bland svenska arbetsterapeuter. Studien hade en tvärsnittsdesign. Ett webbaserat frågeformulär skickades via e-post till ett randomiserat urval av 428 arbetsterapeuter för att undersöka de psykometriska aspekterna av CCAI-S. Materialet analyserades med såväl deskriptiv statistik som med faktoranalyser.

Resultatet från studie I visade generellt en hög innehållsvaliditet för de 24 ingående itemen. Dock påpekades att sex item behövde omformuleras och i vissa fall exemplifieras för att bättre förstå vad de olika frågorna avsåg. När det gäller användbarheten visade resultatet starkt stöd för CCAI-S. Kategorin 'Interaktioner med klienter' visade att instrumentet skulle kunna användas individuellt för hälso- och sjukvårdspersonal och därigenom skapa en ökad medvetenhet om kulturella frågor i den dagliga praktiken.

Kategorin 'Arbetsplatsen och dess organisationsstöd' visade potential för användning av instrumentet på olika typer av arbetsplatser, både vad gäller galler deltagarnas egna verksamheter men även inom skola och arbetsförmedling. Det framkom tydligt hur viktigt betydelsen av organisatoriskt stöd var för hälso- och sjukvårdspersonal vid utvecklingen av den egna individuella kulturella kompetensen. Resultat från studie II angående konstruktionsvaliditet genererade en trefaktormodell med benämningarna: 'Öppenhet och medvetenhet', 'Arbetsplatsstöd' och 'Interaktionsförmåga'. Alla tre faktorerna visade höga faktorladdningar och innehöll 12 av de 24 ursprungliga itemen. Cronbach's Alpha gav också ett starkt stöd för den framkomna trefaktormodellen. Gällande användbarheten visade alla 24 item hög klinisk relevans.

Sammanfattningsvis visade resultaten från de två studierna goda psykometriska egenskaper för att mäta kulturell kompetens och hög klinisk relevans vid användandet av CCAI-S. Detta ger starkt stöd för att CCAI-S kan användas i ett svenskt sammanhang för hälso-och sjukvårdspersonal, däribland arbetsterapeuter. Resultaten av den utveckling och anpassning som skett av det amerikanska instrumentet CCAI visar att den kommande publicerade versionen av CCAI-S kan bli ett värdefullt självskattningsinstrument för hälso- och sjukvårdspersonal som strävar efter att förbättra sin förmåga till personcenterad kommunikation i möten med utlandsfödda klienter. CCAI-S kan också vara till stöd för organisationen som en vägledning för vad man kan fokusera på när det gäller att utveckla kulturell kompetens hos personalen. Sammantaget kan detta bidra till att påverka hälso- och sjukvårdens effektivitet och förbättra interventioner för utlandsfödda klienter. Att utveckla ett instrument är en fortlöpande process som kräver flera utvärderingar och test i olika kontexter och med olika populationer. Därför är fortsatta psykometriska prövningar och användbarhetsstudier på CCAI-S av betydande värde.

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