J. Psychosoc. Rehabil. Ment. Health
https://doi.org/10.1007/s40737-022-00309-0

ORIGINAL ARTICLE

Norwegian Cross-Cultural Adaptation of the Social and Communities Opportunities Profile-Mini for Persons with Concurrent Mental Health and Substance Use Disorders

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Received: 26 July 2022 / Accepted: 19 September 2022

Abstract Persons with concurrent mental health and substance use disorders often do not participate actively in society and remain marginalized. The promotion of social inclusion is important for the care of persons with concurrent disorders. To measure social inclusion, the Social and Communities Opportunities Profile (SCOPE) was developed, followed by its mini version for English-speaking people in Singapore. In Norway, there is no instrument available to measure social inclusion. Thus, the aim was cross-cultural adaptation of SCOPE Mini for persons with concurrent disorders. The Norwegian adaptation was performed using the systematic approach recommended by Beaton et al. After a forward–backward translation, the Norwegian SCOPE-Mini was pre-tested among 30 persons with a concurrent mental health and substance use disorder in three areas to check its psychometric properties. To evaluate comprehensibility and applicability, participants were asked five open questions. The Norwegian cross-cultural adaptation of SCOPE Mini showed acceptable psychometric properties and was considered comparable to the original version. The results of the pre-test showed no linguistic inconsistency, but some indications of the necessity of semantic adaptation regarding the cultural context and persons with concurrent disorders. The Norwegian SCOPE Mini may be a practical tool for health professionals, social workers, and researchers to measure social inclusion among a vulnerable group such as persons with a concurrent mental health and substance use disorder. However, given the relatively small sample size in our study, further research on the validity and reliability of the instrument is recommended.

Keywords Social inclusion · Cross-cultural adaptation · Substance use disorder · Mental health disorder · Pre-test

Abbreviations

MHD	Mental health disorder
N	Number

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Published online: 05 October 2022

n. a.	Not applicable
PerOpps	Perceived opportunities
SatOpps	Satisfaction with opportunities
SD	Standard deviation
SCOPE	Social and Communities Opportunities Profile
SUD	Substance use disorder

Introduction

Persons with mental health disorders (MHD) and substance use disorders (SUD) are often marginalized in society (Boardmann, 2010). Statistics from "Service User Plan 2019" have identified approximately 23 700 persons in Norway with addiction and/or mental health problems who have a severely low level of functioning in many important areas of life, manifested as poor living conditions and financial and social problems, and they are often weakly integrated in their communities (Hustvedt et al., 2020). At least since the Norwegian ratification of the UN Convention on the Rights of Persons with Disabilities, the promotion of participation in society has been an essential aim for the care of persons with addiction and/or mental health problems (United Nations, 2014). Consequently, attention to appropriate treatment and follow-up of persons with MHD and SUD has been emphasized in Norwegian health legislation. Not only in Norway, but also in other industrialized countries, recovery orientation is increasingly being recommended in guidelines for mental health and addiction services (Pincus et al., 2016). Whereas the Norwegian national guidelines focus on the needs and challenges of using people's own resources in the recovery process towards improved quality of life, the patient pathways in mental health and substance use services emphasize increased service user involvement and focus on the process involved. Recovery can be understood as a personal and social process, beyond the reduction of symptoms (Davidson et al., 2009; Leamy et al., 2011; Neale et al., 2016), and is a widely accepted construct in the field of mental health and substance use. Individuals may implement their own recovery and incorporate their own experiences, while daily circumstances are considered as the setting for change (Borg & Davidson, 2008). Three overarching themes as facilitators of recovery have been identified: (a) a meaningful everyday life, (b) a focus on strengths and future orientation, and (c) re-establishing a social life and good relationships (Ness et al., 2014). Experiences of being accepted in the community were described as especially valuable (Brekke et al., 2017). This concurs with the understanding that self-empowerment of patients is considered a necessary component in the recovery process of finding a path towards social inclusion and participation in society.

Social inclusion can be defined as participation in public life that implies being structurally included as an individual in society, and the feeling of belonging to a society (Baumgartner & Burns, 2014; Huxley et al., 2012). There are few assessment tools for social inclusion. Social inclusion is often seen as a political goal which has to be accomplished within a society, but there are seldom concepts of how it can be measured (Atkinson et al., 2002). Huxley and colleagues developed the Social and Communities Opportunities Profile (SCOPE), a robust measure of social inclusion that can be used for people with mental health problems and applied across a range of community service settings (Huxley et al., 2012, 2016). With the development of SCOPE as a multidimensional assessment tool, a range of life domains is taken into account, incorporating both subjective and objective aspects of social inclusion. The initial version of SCOPE, which contains 121 items, has been found to have good reliability and validity, but it is time-consuming to use in daily practice, and therefore rarely used (Huxley et al., 2006). Later, a condensed version, comprising 48 items, was developed, which confirmed good internal consistency (Huxley et al., 2012). To date, SCOPE has been cross-culturally adapted for use in China (SCOPE-C) (Chan et al., 2015), Poland (SCOPE-P) (Balwicki et al., 2018), and Brazil (SCOPE-B) (Santos et al., 2018), with different numbers of items in each version. As these questionnaires are still quite long and therefore may be too expensive to implement, a short version for English-speaking people in Singapore (Mini-SCOPE Singapore) was developed (Tan et al., 2019). In a systematic review on the evaluation of the psychometric properties of assessment tools for social inclusion, the short version of SCOPE was identified as the measure with the best evidence in acceptable psychometric properties, which also covered the

breadth of the construct of social inclusion (Cordier et al., 2017).

In Norway, no tools have been available to date to measure social inclusion. Given the fact that even in Norway, one of the wealthiest countries of the world, with a high standard of living and high employment, individuals with MHD/SUD are marginalized, it seems reasonable to consider how to measure social inclusion and what could be done to facilitate their effective inclusion in society. Hence, there is a need for an assessment tool that measures social inclusion and participation in society among persons with MHD/SUD. An accurate measure may on the one hand contribute on a societal level, giving community services and policy makers an idea of what constitutes social inclusion and what factors may affect the wellbeing of individuals with MHD/SUD. On the other hand, such an assessment tool provides these individuals with valuable information about their status of social inclusion, as the instrument focuses on recovery rather than illness. The development from scratch of a Norwegian assessment tool for social inclusion would be expensive and time-consuming. Further, translation and adaptation to the Norwegian context of a tool that is well-established internationally may allow for future comparison of results across counties and cultures. Thus, the aim of the study was to (1) perform a cross-cultural translation of Mini-SCOPE into Norwegian; (2) adapt the tool for persons with concurrent MHD and SUD; and (3) pre-test the psychometric properties such as item correlation, internal consistency, item distribution, floor and ceiling effects, and face validity of this version among persons in the target group in Norway.

Methods

Mini-SCOPE

The Mini-SCOPE assessment tool comprises 25 items and is a shortened version of the 48 item version (Huxley et al., 2012). Mini-SCOPE measures five domains of Satisfaction with Opportunities (SatOpps) in terms of leisure time, community involvement, work, finances and family; two domains of Perceived Opportunities (PerOpps) regarding housing and income. It also contains a question on the perceived level of overall social inclusion and a question on the perceived level of quality of life. Mini-SCOPE includes 17 scorable items, while eight other items are either Yes/No questions or about basic demographics (Tan et al., 2019). The SatOpps items were measures on a seven-point scale, ranging from 'delighted' to 'terrible', while the PerOpps items were measures on a five-point scale. A reliability study of Mini-SCOPE has demonstrated acceptable internal consistency and good test–retest consistency. Further, it has been proven that the domains SatOpps and PerOpps assess and clearly reveal the cultural context of what persons with MHD value or are satisfied with (Tan et al., 2019a). SatOpps and PerOpps are scored by calculating the sum of the items. Overall social inclusion and quality of life are single items and are scored separately. In all scorable items, higher scores indicate lower satisfaction opportunities, perceived opportunities or satisfaction with social inclusion and quality of life.

Cross-Cultural Translation and Adaptation

After obtaining written consent from the authors of the original versions of SCOPE and Mini-SCOPE, the cross-cultural adaptation process was performed, following internationally recommended methodology, which comprises the five steps shown in Fig. 1 (Beaton et al., 2000; Duffy, 2006). Two translators, one professional native Norwegian translator with a background in linguistics and one member of the research team with Norwegian as her first language in addition to professional experience with MHD/SUD separately performed the forward translation (step 1) from the English original into Norwegian. In the second step, three members of the research team (with backgrounds as a medical doctor, a social worker and an addiction and mental health worker) compared the two Norwegian translations and reached consensus in cases of differences, which resulted in a synthesized Norwegian version of Mini-SCOPE. The synthesis process was documented in a report by the first author. The backward translation of the Norwegian version into English (step 3) was performed by two people: a professional translator and a researcher with knowledge of MHD/SUD who was not part of the research team. Both professional translators (in step 1 and step 3) had no knowledge of MHDs and SUDs and did not know that the tool was to be used with persons with concurrent disorders. All four translators were

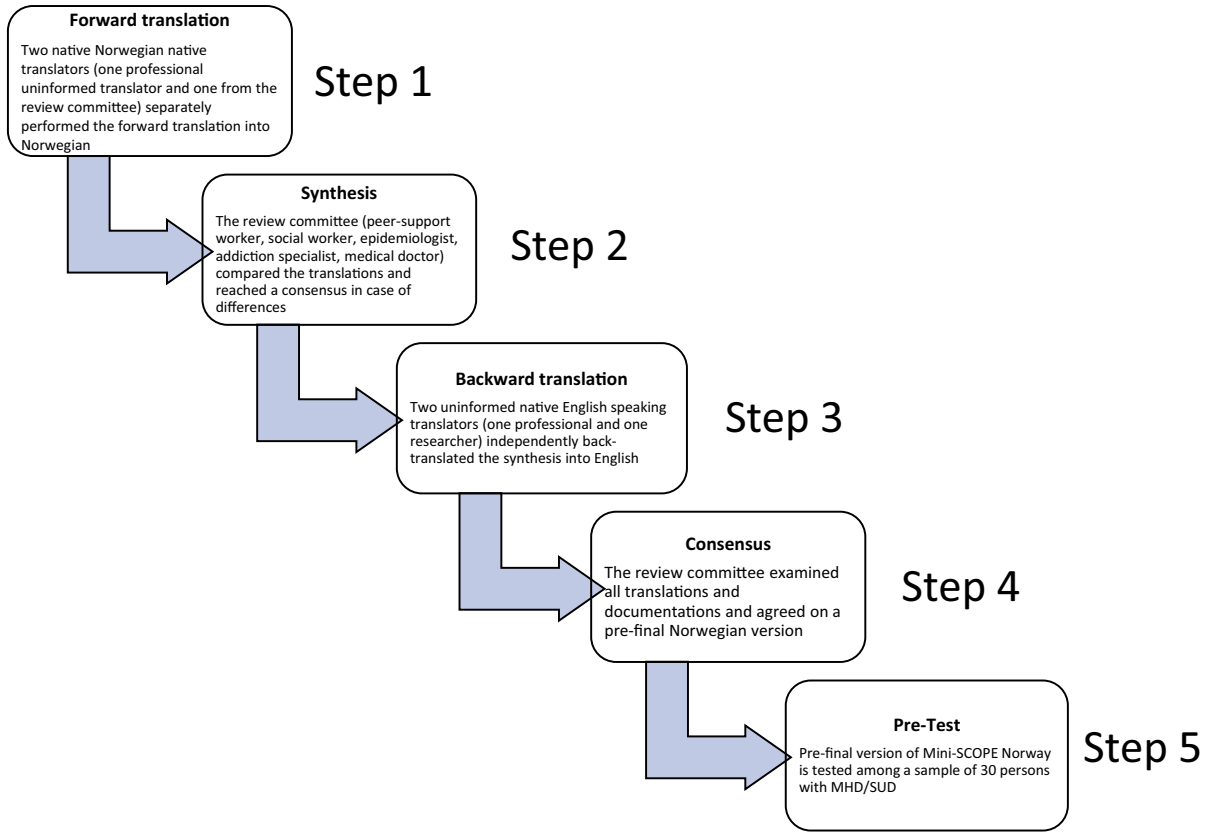

Fig. 1 Stepwise forward–backward translation approach, adapted from Beaton et al. (2000)

instructed to translate both the original and Norwegian version verbatim, without considering adaptation to persons with concurrent disorders. In a fourth step, the review committee, comprising the research team and two peer support workers with lived experience of co-occurring disorders, examined all translations and documentation, identifying semantic and conceptual differences and agreed on a pre-final Norwegian version of Mini-SCOPE. In cases of agreement in the wording in both backward translations with the English original, the review committee decided that the Norwegian equivalent would be quoted as a consensus. Additionally, cases of doubt were identified, which again were addressed by the English translators. Moreover, an additional social worker from a municipal mental health and addiction service was consulted to check the suitability of the wording for use with persons with MHD/SUD. It was necessary to adapt some phrases to the Norwegian context, e.g., regarding type of accommodation, education, health or ethnic group. In step 5, the pre-final Norwegian version was evaluated in a pre-test. After the pre-test, comments from the synthesis and the review committee were compared with the comments of the participants during the pre-test. The final Norwegian version was presented and approved by the author of the original MINI-SCOPE.

Pre-test

To evaluate the comprehensibility and applicability of the pre-final Norwegian Mini-SCOPE, 40 persons with concurrent disorders in three medium-sized municipalities in Eastern Norway were recruited for a pre-test (step 5). This number was based on the guideline for cross-cultural adaptation of assessment tools, which recommends a pre-test with 30–40 individuals (Beaton et al., 2000). Participants were recruited by a social worker or a peer support worker via the municipal mental health and addiction services and a non-governmental organization which provides a low-threshold service for persons in addiction.

Inclusion criteria were: (a) age 18 years and above, (b) capacity to understand study information and informed consent, and (c) having a mental health and substance use problem that seriously affected everyday life, based on self-report. Inclusion did not depend on a clinical diagnosis. The local mental health and addiction services and the non-governmental organization agreed on a date with eligible participants, when either a peer support worker or a member of the research team (hereafter called interviewers) went through the questionnaire with the participant, after written informed consent had been obtained. The interviewer read the questions and response options without further comment and the participant gave one of the responses. To check the face validity of the pre-final Norwegian Mini-SCOPE, after completion of the questionnaire, participants were asked five evaluation questions regarding comprehensibility, wording, length, whether any questions upset them and whether any aspects were missing. The data from their responses were discussed at the final review committee meeting, and decisions were jointly reached as to whether changes in the Norwegian Mini-SCOPE were needed.

The data protection office of Innlandet Hospital Trust has approved this study (reference number 15956320). All methods were performed in accordance with applicable laws, regulations and research ethics guidelines (World Medical Association General Assembly, 2013).

Analysis

The cross-cultural translation and adaptation process was narratively described. The pre-tested cross-culturally adapted Norwegian version of Mini-SCOPE was scored according to the instructions of the authors of the original Mini-SCOPE version (Tan et al., 2019). Descriptive statistics were used to explore the Mini-SCOPE data. Means, standard deviation (SD), and floor and ceiling effects were reported for the scorable items, while categorical variables, mostly representing the characteristics of the sample, were presented in percentages and absolute numbers. If more than 15% of the participants scored at the endpoints of the scales, floor and ceiling effects were considered to be present (Terwee et al., 2007). Item to opportunities (average SatOpps and average PerOpps) correlations were calculated to evaluate the fit of each item within the five domains of SatOpps and the two domains of PerOpps, using Pearson correlation coefficients (Terwee et al., 2007). To evaluate internal consistency, we computed Cronbach's alpha for the average SatOpps and average PerOpps (Cronbach, 1951).

Results

Pre-final Version: Translation and Adaptation

After the structured forward and backward translation process, the review committee reached a consensus on the pre-final version of the Norwegian Mini-SCOPE. Semantic and conceptual discrepancies were discussed, and modifications were made in the Norwegian version. For example, "How do you feel…" was replaced with the phrase "How satisfied are you…" in most of the SatOpps items except for item 8 (How do you feel about not working), as this was considered linguistically more applicable in Norwegian. Further, the definition of "household" before item 4 (type of accommodation) was omitted in the pre-final Norwegian version, as this term was not used in the question on accommodation. The translators replaced "household" with other terms considered appropriate by the review committee. The item on accommodation in the pre-final Norwegian version comprises five response options which agree with established categories for accommodation used in Norwegian registers (Hustvedt IB, 2020; Trust, 2022). The question on education (item 12) was fitted to the Norwegian context during the forward–backward translation process. The response option "below secondary" was changed to "none" with consensus. Further, item 13 (question about additional course or education) was simplified by omitting the part "…even if you did not obtain them". This was due to cultural circumstances and was altered following input from the peer support worker during the forward–backward translation process. The argument for deleting the last part of the sentence in the Norwegian version was that a person with MHD and SUD will have difficulty in judging whether the learning outcome of a course has been fully achieved. Item 15 (talked to or visited a general practitioner or family doctor about mental health) and item 16 (attended a hospital or clinic for a physical health problem) were fitted to the Norwegian context during the forward–backward translation process, using the

words 'ambulant' (item 15) and 'polyclinic' (item 16), which were again revised after the pretest as described later. Finally, the item on ethnic group was cross-culturally adapted. For the pre-final Norwegian of SCOPE, yes/no questions such as: Were you born in Norway? Was your mother born in Norway? Was your father born in Norway? used by Statistics Norway (Statistics Norway, 2019) to determine whether a person has an immigrant origin were used and agreed on as more appropriate.

Pre-test of the pre-final Version

Characteristics of the Participants

Thirty out of 40 persons with MHD/SUD met the inclusion criteria and participated in the pre-test of the cross-culturally adapted pre-final version of the Norwegian Mini-SCOPE. The ten persons excluded either did not come to the agreed appointment or were incapable of understanding or signing the informed consent form at the time of the interview, being under the influence of alcohol or drugs. Participants were on average 46.6 (SD 12.8) years of age and most were male. Two participants (7%) were of immigrant origin, being born abroad or having a parent born abroad. Eighteen (60%) were in employment and had worked an average of 15.8 (SD 13.1) hours in the last seven days. One person (3.3%) had no education while the majority had finished lower secondary school (46.7%). Four persons had taken a course or further education within the past 12 months. Most of the participants (69%) were living in municipal housing and felt fairly or very safe (80%) in the area where they lived. Many were not currently in contact with health services for their mental (80%) or physical health (83.3%). Half of the participants reported suffering from a disability or long-term illness, while the average satisfaction score on current physical health was 4.4 (SD 1.7) on a scale where 1 means terrible and 7 very happy. The participants called an average of 2.6 (SD 2.6) persons a friend and most of them (83.3%) had visits from neighbors, family, or friends at least once a month, while two persons (6.7%) never had visitors at home. The characteristics of the sample are presented in Table 1.

Psychometric Properties

The satisfaction with opportunities (SatOpps) items ranged from a mean of 3.6 to 4.8, where the response options on a Likert scale ranged from 1 = terrible to 7 = delighted. Four out of five SatOpps items showed high correlation with $r > 0.5$, except for the SatOpps item about family with $r = 0.48$. The two perceived opportunities (PerOpps) on "housing" and "to increase income", each with five response options ranging from "Opportunities are extremely restricted" to "There are plenty of opportunities", resulted in means of 3.0 and 2.6, respectively. For 33% of participants, floor effects were observed, when the level of significance was set at 15% or more scoring at the lowest level of the range. Correlation, means, standard deviation and possible floor and ceiling effects of the SatOpps and PerOpps are presented in Table 2.

With regard to internal consistency, SatOpps and PerOpps showed low Cronbach's alpha values (0.64 and 0.73, respectively), but slightly higher values for PerOpps than in the Mini SCOPE Singapore version, as shown in Table 3. Floor effects were observed for 21.4% of the participants for the average PerOpps.

Evaluation Questions and Final Version

Every participant (N = 30) answered the five evaluation questions. Regarding comprehensibility, all participants said that the questions were generally comprehensible. One participant indicated that the question about age (What age were you on your last birthday?) was an unusual way to ask about age. However, the review committee decided not to change this item. Five out of 30 participants stated that the wording in item 7 "Thinking about the seven days ending on Sunday, how many hours did you actually work in your main job/business" was complicated. They had to think several times about the question before they could give an answer. At the final review meeting this item was simplified to "How many hours did you work in the last seven days?". Further, two participants indicated that item 10 (How do you feel about the range of opportunities to secure additional income that are available?) might be open to misunderstanding, possibly suggesting that persons with MHD/SUD may gain additional income from drug dealing or prostitution. In the final consensus meeting,

Table 1 Profile of respondents (N = 30)

Item	N (%)	Mean (SD)
Gender (Item 22)		
Female	8 (26.7)	
Male	22 (73.3)	
Age (Item 23)		46.6 (12.8)
Immigrant background (Item 24)		
Yes	2 (7)	
No	28 (93)	
Working hours (item 7)		15.8 (13.1)
Missing	18 (60)	
Highest education (item 12)		
None	1 (3.3)	
Lower secondary	14 (46.7)	
Upper secondary	10 (33.3)	
Vocational education	2 (6.7)	
College/university	3 (10)	
Enrolled in a course (item 13)		
Yes	4 (13.3)	
No	26 (86.7)	
Type of accommodation (item 4)		
Municipal housing	20 (69.0)	
Private rented	2 (6.7)	
Owner occupier	7 (24.1)	
Flatshare	0	
Safety (item 11)		
Very unsafe	2 (6.7)	
A bit unsafe	4 (13.3)	
Fairly safe	8 (26.7)	
Very safe	16 (53.3)	
Self-assessment of own physical health (item 14)		
(1 = terrible—7 = delighted)		4.4 (1.7)
Consulting health services due to mental health (item 15)		
No visits	24 (80.0)	
One or two	1 (3.3)	
Three or more	3 (10.0)	
Don't know	2 (6.7)	
Consulting health services due to physical health (item 16)		
No visits	25 (83.3)	
One or two	2 (6.7)	
Three or more	2 (6.7)	
Don't know	1 (3.3)	
Long-term illness or disability (item 25)		
Yes	15 (50.0)	
No	15 (50.0)	
Leisure, sports and entertainment facilities in the area (item 1)		
Yes	25 (83.3)	
No	3 (10.0)	
I don't know	2 (6.7)	
Either or both parents alive (item 17)		
Yes	20 (66.7)	
No	10 (33.3)	
Number of friends (item 19)		2.6 (2.6)
Frequency of visits received (item 20)		
Every day	5 (16.7)	
Several times a week	5 (16.7)	
At least once a week	4 (13.3)	
At least once every two weeks	3 (10.0)	
At least once a month	8 (26.7)	
Less than once a month	3 (10.0)	
Never	2 (6.7)	

the review team agreed to add the word "legal" (How do you feel about the range of opportunities to secure additional *legal* income that are available?) to the final Norwegian version. (2) Wording: Five participants stated that the word "included" was not very familiar to them. This was after an interviewer asked directly about this word. One person reflected that being included may depend on how the person interprets the term. Another person felt that the term inclusion was only used in conjunction with migrants and not with persons with concurrent MHD/SUD. However, as most participants did not comment on the term "included", the committee decided to keep the word in the assessment tool. Almost every participant (28 out of 30) had difficulty understanding the words 'ambulant' in item 15 (associated by many with the word 'ambulance') and 'polyclinic' in item 16 (too abstract). Thus, at the final review meeting it was agreed to simplify the wording to "In the last 12 months, how many times have you been in contact with the health services concerning your mental health (item 15) and physical health? (item 16)". (3) Length: All participants found the length of the questionnaire to be appropriate. The mean self-perceived time to complete the questionnaire was 14 min. (4) Upsetting questions: One participant felt provoked by the

Table 2 Item to average opportunity correlations

Variable	Opportunity[1]	N	Mean	SD	N (%) at floor	N (%) at ceiling	r
How do you feel about the range of opportunities to be involved with community groups, clubs or organizations that are available in your area?	SatOpps	26	4.7	1.6	1 (3%)	4 (13%)	0.72
Overall, how do you feel about the opportunities that you have to participate in leisure activities?	SatOpps	30	4.2	1.8	3 (10%)	3 (10%)	0.77
What do you think about your opportunities to access suitable housing?	PerOpps	28	3.0	1.5	8 (27%)	6 (20%)	0.90
How do you feel about the range of opportunities for work that are available to you?	SatOpps	30	3.4	1.6	5 (17%)	1 (3%)	0.65
What do you think about your opportunities to increase your personal income?	PerOpps	30	2.6	1.4	10 (33%)	3 (10%)	0.88
How do you feel about the range of opportunities to secure additional income that are available?	SatOpps	30	3.6	2.1	10 (33%)	4 (13%)	0.59
How do you feel about the amount of contact you have with your family?	SatOpps	30	4.8	1.8	3 (10%)	4 (13%)	0.48

[1]All SatOpps are scorable on a scale from 1 = very unsatisfied to 7 = very satisfied, and all PerOpps are scorable on a scale from 1 = opportunities are extremely restricted to 5 = plenty of opportunities; r = Pearson correlation coefficient, all r are significant on the 0.01 level (2-tailed)

question about "contact with family", as he did not know his family. The other 29 participants did not feel upset about any of the questions. (5) Missing aspects: None of the participants felt that any aspects were missing. The final Norwegian Mini-SCOPE is shown in Online Appendix A.

Discussion

The aim of the study was to conduct a translation and cross-cultural adaptation of Mini-SCOPE for the Norwegian context and for persons with concurrent mental health and substance use disorders, using a systematic multi-step approach (Beaton et al., 2000). This resulted in the Norwegian version of MINI-SCOPE with acceptable psychometric properties, which is considered comparable to the original version. The results of the pre-test showed no linguistic inconsistency, but some indications for a semantic optimization of the translated Norwegian version regarding the cultural context and the target population, leading to adaptation in the final Norwegian version.

Only a few changes were made due to linguistic issues during the translation process. The most prominent change was in the SatOpps items, where the wording 'satisfied with' replaced 'how do you feel about'. This had a direct effect on the corresponding response options, which were also modified by using the word 'satisfied' combined with an adverb, indicating different degrees of satisfaction. One might argue that the question 'How satisfied are you with …?' could lead to different answers from the question 'How do you feel about …?'. However, this linguistic change was due to the independent translation and consensus of the review team and did not have a direct implication for the psychometric properties, as internal consistency of the SatOpps showed reasonable values. However, the expression 'satisfied with' is not used consistently throughout all SatOpps. Thus, these linguistic modifications seem to be in line with comparable assessment tools in Norwegian used for persons with MHD and SUD, such as the Manchester Short Assessment of Quality of Life (Priebe et al., 1999; Ådnanes et al., 2019).

In the adaptation of the questionnaire for the target group, persons with MHD and SUD, the changes were minimal. Adding the word 'legal' to the item on obtaining extra income (item 10) was important in relation to participation in society and social inclusion. Findings in a study on income-generating activities

Table 3 Psychometric properties of the cross-culturally adapted Mini-SCOPE Norway

Variable	Mean	SD	N (%) at floor	N (%) at ceiling	Cronbach's α Mini-SCOPE Singapore	Cronbach's α Mini-SCOPE Norway
Average of SatOpps (N = 26)	4.1	1.2	1 (3.8%)	1 (3.3%)	0.66	0.64
Average of PerOpps (N = 28)	2.8	1.3	6 (21.4%)	2 (7.1%)	0.57	0.73
Overall social inclusion (N = 30)	4.1	1.6	2 (6.7%)	2 (6.7%)	n.a	n.a

n.a. = not applicable

among marginalized people who use drugs show that 15.2% reported sex work, 31.5% drug dealing and 13.9% other illegal activities as a source of income (Jaffe et al., 2021). One may argue that adding the word 'legal' to the item about extra income might imply that persons with a SUD conduct illegal activities. However, participants in the pre-test pointed out that this item might be misunderstood if not specified. In our pre-test, the mean scores in perceived opportunities (PerOpps) on 'access to suitable housing' and 'increase of personal income' were 3 and 2.6, which implies that the participants were quite satisfied with their perceived opportunities regarding these issues. This may be due to the setting of the pre-test, which was conducted in three medium-sized municipalities in Eastern Norway with rural areas, good housing opportunities and a very low unemployment rate in comparison to Norwegian urban areas.

Similarly, items 15 and 16, meant to assess contact with mental and physical health services, were not very clear to the participants. The answers in the pre-test might have been biased due to the participants' confusion about the use of the words 'ambulant' and 'polyclinic'. The Norwegian health care system differs from those in UK and Singapore, the countries where SCOPE originated. Norway has a semi-decentralized health care system, where the state is ultimately responsible for specialist care, which is administered by four regional health authorities, whereas municipalities are in charge of primary care (Ringard et al., 2013). Modifying the items regarding contact with health care due to mental or physical health problems may therefore have been suitable for the Norwegian situation, where mental and physical health care and the corresponding legislation are still split (Wikstøl et al., 2021). Further, the shortening of item 13 about further education to whether the person had obtained a qualification form the course is reasonable from a cultural perspective and regarding participation in society, since this information is not essential for the outcome of the assessment tool, namely social inclusion and societal participation.

The unique aspect of the Norwegian SCOPE Mini is that it has been adapted for persons with MHD and SUD. Participants for the pre-test were recruited in different community settings. Results from the evaluation questionnaire did not reflect the setting from which the participant was recruited. This indicates that the assessment tool may be applied across a range of community settings.

As stipulated by Nusbaum et al. (Nusbaum et al., 2001), a questionnaire resulting from a cross-cultural adaptation process needs revision if at least 15–20% of participants in a pre-test report uncertainty about understanding some items. The rate of comparison was described as high in the pre-test, and a revision of the Norwegian version was thus not considered necessary. Further, during the translation and cultural adaptation process, no items were omitted, and the assessment tool is comparable with the original, which allows for future international comparisons.

Some study limitations have to be mentioned. The sample size for the pre-test was relatively small, although it was in line with the guideline for cultural adaptation of assessment tools (Beaton et al., 2000), which recommends a pre-test with 30–40 individuals. As persons with MHD/SUD belong to a very heterogeneous group in terms of severity, type of disorders and degree of recovery, a larger sample would have

provided a more finely nuanced evaluation by the participants. Further, it was not possible to conduct a test–retest. This was due to the type of population, which is quite difficult to recruit for research projects. Due to ethical and data protection issues, it was not possible to contact participants after they completed the questionnaire. Furthermore, some participants were recruited in a low threshold meeting place for persons with MHD/SUD. Visitors come very irregularly, which hampers the recruitment of the same persons for a retest.

In Norway, there is no self-assessment tool that could have served as a comparison in the validation of the psychometric properties. There is the Service User Plan (Hustvedt IB, 2020), a tool for municipalities to assess the nature and extent of substance use and mental health problems in service users. However, it is not a self-assessment tool but an online tool which requires a login, and the questions and response options are not directed at service users themselves but depend on the subjective assessment of community workers, which meant that the tool was not considered appropriate for comparison. However, the procedure for cross-cultural adaptation of a self-assessment tool used in the present study is in line with methods used in several other studies (Belfort et al., 2015; Coenen et al., 2021; Cygańska et al., 2021).

Our study has several practical implications for health professionals, social workers, and researchers alike. The Norwegian SCOPE-Mini may enhance evaluation of social and wellbeing aspects of persons with MHD/SUD and thus lead to more specific support in their recovery process. The Norwegian SCOPE Mini allows for the measurement of changes over time among persons with MHD/SUD: Using an individual's information on different aspects of their social inclusion, participation in society and needs, the progress of social inclusion can be efficiently monitored over a specific period. Further, results of the assessment with SCOPE Mini may provide service developers with useful information when designing innovative treatment and training programs for persons with MHD/SUD. SCOPE Mini may also be used as a consistent tool in the evaluation of existing treatment and recovery programs.

Finally, the regular use of SCOPE-Mini in different countries will enable comparative multi-site studies to be conducted in the future. This will help to overcome cultural differences commonly embedded in international studies, and provide meaningful comparisons of the social inclusion situation in one site in relation to other sites for a particular group of clients.

Conclusion

MINI-SCOPE is a practical tool for measuring social inclusion among a vulnerable group such as persons with concurrent disorders. Originally aimed at persons with MHD, it was successfully cross-culturally adapted for both the Norwegian context and a different target group, i.e., those with concurrent MHD and SUD. The Norwegian adapted version showed acceptable psychometric properties. However, given the relatively small sample size in our study, further research on the validity and reliability of the instrument is recommended.

Supplementary Information The online version contains supplementary material available at https://doi.org/10.1007/s40737-022-00309-0.

Acknowledgements The authors thank the peer support workers Morten Brodahl and Thomas Midtskogsæther Lund for their valuable contributions in the review committee and the pretest. The authors thank all participants of the pretest and the participating municipalities for recruitment.

Author's Contribution ML and LL designed the study. ML and HSB conducted the pretest, ML conducted the statistical analysis. ML, EK, AH, HSB and LL were in the review committee. All authors contributed and to the data analysis. ML wrote the first draft of the manuscript. All authors edited the manuscript. All authors approved the final manuscript.**Funding** This study received no funding.

Data Availability Data are available from the corresponding author on request.

Declarations

Conflict of interest ML, EK, AH, HSB, MYC and LL declare that they have no competing interests.

Ethical Approval and Consent to Participate The data protection office of Innlandet Hospital Trust has approved this study (Reference Number 15956320). All methods were performed in accordance with applicable laws, regulations and research ethics guidelines. Participants signed an informed consent prior pretest.

Consent for Publication Not applicable.

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