



Original Article

Translation, Cross-Cultural Adaptation, and Psychometric Analysis of the Attitudes Towards Homelessness Inventory for Use in Sweden

Anna Klarare, RN, MSNEd, PhD  • Anna Wikman, PhD • Mona Söderlund, RN, PhD • Jenny McGreevy, Licentiate Degree (1/2 PhD) • Elisabet Mattsson, RN, RNM • Andreas Rosenblad, PhD 

Key words

attitudes, confirmatory factor analysis, cross-cultural adaptation, health care, homelessness, registered nurses, psychometric testing, translation

ABSTRACT

Background: Homelessness is an increasing problem worldwide, and the origins of homelessness in high-income countries are multifaceted. Due to stigma and discrimination, persons in homelessness delay seeking health care, resulting in avoidable illness and death. The Attitudes Towards Homelessness Inventory (ATHI) was developed to cover multiple dimensions of attitudes toward persons in homelessness and to detect changes in multiple segments of populations. It has, however, not previously been translated to Swedish.

Aims: The aim of the present study was to translate, cross-culturally adapt, and psychometrically test the ATHI for use in a Swedish healthcare context.

Methods: The project used a traditional forward- and back-translation process in six stages: (1) two simultaneous translations by bilingual experts; (2) expert review committee synthesis; (3) blind back-translation; (4) expert review committee deliberations; (5) pre-testing with cognitive interviews including registered nurses ($n = 5$), nursing students ($n = 5$), and women in homelessness ($n = 5$); and (6) psychometric evaluations. The final ATHI questionnaire was answered by 228 registered nurses and nursing students in the year 2019.

Results: The translation process was systematically conducted and entailed discussions regarding semantic, idiomatic, experiential, and conceptual equivalence. Confirmatory factor analysis was used to examine if the collected data fitted the hypothesized four-factor structure of the ATHI. Overall, it was found that the model had an acceptable fit and that the Swedish version of ATHI may be used in a Swedish healthcare context.

Linking Evidence to Action: The ATHI has been shown to be a psychometrically acceptable research instrument for use in a Swedish healthcare context. The systematic and rigorous process applied in this study, including experts with diverse competencies in translation proceedings and testing, improved the reliability and validity of the final Swedish version of the ATHI. The instrument may be used to investigate attitudes toward women in homelessness among nursing students and RNs in Sweden.

BACKGROUND

Homelessness is an increasing problem in the European Union (Busch-Geertsema, Edgar, O'Sullivan, & Pleace, 2010), and more than 33,000 Swedish citizens or individuals who have temporary or permanent residence permits were reported homeless in Sweden in 2017 (National Board of Health and Welfare, 2017). The origins of homelessness in high-income countries are multifaceted, both on

individual and structural levels, including for example an aging population, changes in the housing market, shifts in family structures, migration, rising costs for housing, and poor health (Fazel, Geddes, & Kushel, 2014). For persons experiencing homelessness, previous research has shown increased risks of alcohol and substance use, mental and physical illness, poverty, social exclusion, and premature death (Aldridge et al., 2018; European Commission, 2013;

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Fazel et al., 2014). Encountering alienation, discrimination, and stigma when seeking health care has been described (Omerov, Craftman, Mattsson, & Klarare, 2020), resulting in avoidable illness and even death for persons experiencing homelessness, since one becomes reluctant to seek health care when needed. As a result of this delay, once the need for health care is urgent, persons experiencing homelessness have been found to seek emergency care (Daiski, 2007; Fazel et al., 2014). This may be regarded as a societal failure for countries claiming universal health care.

Registered nurses (RNs) have a responsibility to advocate for social justice and to promote health policies that ensure adequate care resources for persons experiencing homelessness (Daiski, 2007; International Council for Nurses, 2012). However, interactions with healthcare providers have been pointed out as a substantial barrier for healthcare engagement for women in homelessness (Bungay, 2013)—for example, being treated with disrespect, lack of caring and empathy (Corrigan, Pickett, Kraus, Burks, & Schmidt, 2015; Gültekin, Brush, Baiardi, Kirk, & VanMaldeghem, 2014), being judged by appearance or previous history (Nickasch & Marnocha, 2009; Voronka et al., 2014), or not feeling welcome or listened to (Jenkins & Parylo, 2011; Rae & Rees, 2015). Professional encounters and relationships play an important role during times of homelessness and isolation (Biederman, Nichols, & Lindsey, 2013; Rae & Rees, 2015). However, RNs and patients may regard caring behaviors differently and have diverging views on caring needs (Papastavrou, Efstathiou, & Charalambous, 2011). RNs need to identify their pre-conceptions to develop a compassionate and authentic presence to provide appropriate nursing care for persons in homelessness (Maze, 2006). Using a person-centered, universal care model to create a mutually respectful and healing relationship has been suggested to improve health care for underserved populations (Bassuk, Latta, Sember, Raja, & Richard, 2017).

In order to undertake studies to understand and learn more about the attitudes and approach of RNs toward women experiencing homelessness in a Swedish context, the Attitudes Towards Homelessness Inventory (ATHI), available in English, was deemed suitable for translation and use in a Swedish healthcare context. The ATHI was developed to cover multiple dimensions of attitudes toward persons in homelessness and to detect changes in multiple segments of populations (Kingree & Daves, 1997). The controversy of whether homelessness is caused by personal or societal factors stands at the core of the 11-item ATHI. The original instrument has been validated through a series of four studies and has been used for detecting changes in attitudes toward homelessness after educational interventions (Buchanan, Rohr, Stevak, & Sai, 2007). The aim of the present study was to translate, cross-culturally adapt, and psychometrically test the ATHI for use in a Swedish healthcare context.

METHODS

The Attitudes Towards Homelessness Inventory (ATHI) Instrument

The 11-item ATHI instrument includes four subscales: (1) the Personal Causation (PC) subscale, measuring the attitude that homelessness is due to personal deficiencies (three items); (2) the Societal Causation (SC) subscale, measuring the attitude that homelessness is due to societal causes (three items); (3) the Affiliation (AFFIL) subscale, measuring attitudes about willingness to affiliate with persons in homelessness (two items); and (4) the Solutions (SOLNS) subscale, measuring attitudes about viable solutions to homelessness (three items). Participants are asked to rate each item on a 6-point Likert scale ranging from 1 (strongly agree) to 6 (strongly disagree), with the scores on the individual subscales PC, SC, AFFIL, and SOLNS as well as the overall or total measure of attitudes toward persons experiencing homelessness obtained by averaging the corresponding responses (sometimes reverse-coded). The resulting scores can thus range from 1 to 6, with higher scores indicating more favorable attitudes toward persons experiencing homelessness. The ATHI instrument has a factor structure consisting of four latent factors—that is, the four subscales PC, SC, AFFIL, and SOLNS—each loading on three observed variables (items), except for the AFFIL factor, which is loading on two variables.

Design and Setting

The project used a traditional forward- and back-translation process as described by Guillemain, Bombardier, and Beaton (1993) and further honed by Beaton, Bombardier, Guillemain, and Ferraz (2000). This process contains six stages: (1) two simultaneous translations by bilingual experts; (2) expert review committee synthesis of the two translations into one; (3) blind back-translation to the source language by two new bilingual experts; (4) expert review committee deliberations for consensus of a version ready for testing; (5) pre-testing with cognitive interviews; and (6) psychometric evaluations.

The forward translations in the first stage were performed by two native Swedish speakers, one clinically active nurse researcher familiar with the field, and one researcher naïve to the field. The second stage synthesis of the two translations was achieved during an expert review committee meeting where the two translations were compared, discussed, and reflected on, resulting in one translated version ready for back-translation. One person not involved in the translations acted as chairperson and mediator. The third stage back-translations were performed by two native English speakers, one naïve to the context (originally from North America) and one familiar with the clinical work (originally from the United Kingdom). The study was conducted by researchers in university settings in an urban region of Sweden. Participants completing

translations were recruited from research networks at two Swedish universities.

Expert Review Committee Deliberations

The fourth stage entailed expert review committee deliberations where reports from stages 1 to 3 were read, discussed, and reflected on. This was a crucial step for cross-cultural adaptation (Beaton et al., 2000) since the processes of forward- and back-translation may reveal discrepancies and highlight inconsistencies. The expert review committee comprised three translators and two researchers, where one acted as moderator. Members of the committee were recruited from the research group, with the research group leader, and a full-time professor, acting as moderator. In this group, there was expertise and competence regarding research, method, and language, as well as the clinical context through experiences as healthcare professionals. Discussion ensued and consensus decisions were made in the four areas of equivalence (Beaton et al., 2000): semantic (words mean the same, no double meanings); idiomatic (idioms hard to translate); experiential (daily life experiences); and conceptual (concepts used may differ across cultures and languages). The proceedings and discussions were meticulously documented for transparency and to provide a record of the decisions made.

Cognitive Interviewing

Using cognitive interviewing with the target population has the potential to influence reliability and content validity by assessing the clarity and relevance as perceived by the target population (Knafl et al., 2007)—in our case, women with experiences of homelessness, nursing students, and RNs. Cognitive interviews, using a “think aloud” approach (Polit & Beck, 2016), were performed with women ($n = 5$), nursing students ($n = 5$), and RNs ($n = 5$) in 2019. Convenience sampling was used to recruit participants that met the inclusion criteria of either being a woman with experiences of homelessness, a nursing student, or an RN interacting with persons in homelessness in their clinical work. Screening for first language was not performed, nor was personal information collected. Women with experiences of homelessness were recruited in the waiting area of a primary healthcare center for persons in homelessness, while RNs were recruited in the break room of the same clinic. Nursing students were recruited from a local nursing university college through an invitation posted on the digital learning platform. Participants were encouraged to fill out the ATHI questionnaire while thinking out loud, aiming to put words to the thoughts going through their minds during the process. Probes were used by the interviewer to elicit further information regarding thoughts about the questionnaire items. Interviews with women at the primary healthcare center were performed by a

research assistant, while interviews with nursing students were performed by the first author. The interviews were audio-recorded with the participants' consent.

For analysis, interviews were listened to and participants' thoughts were documented in a template in writing, first one interview at a time, and secondly compiled as a comprehensive summary of the whole. The expert review committee convened to discuss outcomes and suggested minor revisions of wording or sentence structure in questionnaire items. For the psychometric analysis of ATHI SWE, registered nurses and nurse students were invited to participate in the study by answering an anonymous online questionnaire containing the ATHI questions as well as some questions comprising background characteristics. Participants were approached face-to-face by researchers, in two clinical units and one university setting. In total, 228 individuals answered the questionnaire during October and November 2019.

Statistical Methods

Categorical data are presented as frequencies and percentages, n (%), while ordinal and continuous data are given as means with accompanying standard deviations. Confirmatory factor analysis (CFA) was used to examine if the collected data fitted the hypothesized factor structure of the ATHI. A χ^2 -test was used to assess the overall model fit, with a normed χ^2 -value < 5.0 considered as indicating an acceptable model fit. For heuristic measures of model fit, we used the goodness-of-fit indices comparative fit index (CFI), standardized root mean square residual (SRMR), and root mean square error of approximation (RMSEA), with values of CFI $> .90$ and SRMR $< .08$ considered as good model fits, while RMSEA $\leq .05$ was considered as a close model fit. The CFA analyses were performed using the R package *lavaan* (version 0.6-5; Rosseel, 2012) applying the full information maximum likelihood estimator to handle potentially missing data. All statistical analyses were performed in R 3.6.1/2 (R Foundation for Statistical Computing, Vienna, Austria), with p -values $< .05$ considered statistically significant.

RESULTS

Initially (stage 1), two independent translations from English to Swedish were generated by bilingual researchers. These were assessed by the expert review committee (stage 2) and merged through consensus discussions into a single Swedish version ready for back-translation (stage 3). The two back-translations were similarly performed, assessed, and discussed in expert review committee deliberations (stage 4), resulting in a Swedish version of ATHI ready for initial testing. During discussions and reflections regarding wording, aspects of being homeless as a noun, or being in homelessness as a verb generated lively debate.

Table 1. Background Characteristics of the Study Group, Separately for Registered Nurses ($n = 90$) and Nursing Students ($n = 138$)

Variable	Registered nurses	Variable	Nursing students
Age, mean (SD)	44.9 (11.2)	Age, mean (SD)	31.5 (7.8)
Female gender identification, n (%)	81 (90.0)	Female gender identification, n (%)	127 (92.0)
Years in profession, n (%)		Semester, n (%)	
<1 year	1 (1.1)	3rd	39 (28.3)
1–2 years	1 (1.1)	4th	33 (23.9)
3–5 year	10 (11.1)	5th	28 (20.3)
6–10 years	21 (23.3)	6th	38 (27.5)
>10 years	57 (63.3)		

The group decided to use person-first language and, subsequently, four questionnaire items were changed to “persons in homelessness” instead of “homeless persons.” Cognitive interviews (stage 5) were performed next, with women in homelessness ($n = 5$), RNs ($n = 5$), and nursing students ($n = 5$). The cognitive interviews confirmed that overall, the ATHI items seemed reasonable and valid in generating information about attitudes toward homelessness. However, participants commented that homelessness is complex and that the ATHI questionnaire over-simplified this subject, which could be misleading and potentially contribute to upholding prejudices. Examples of dimensions that participants highlighted as adding to the complexity surrounding homelessness were gender, with women being in a more precarious situation in general, and that substance use represents a large confounding factor clouding any potential discussions about causation of homelessness. Before continuing with the psychometric analyses, the expert review committee convened to summarize and discuss the translation process and outcomes of the Swedish ATHI version. Item number 1 states that “Homeless persons had parents that took little interest in them as children.” In Swedish, this wording was considered challenging since it could be interpreted either as parents not caring for their children or parents who do care but do not have the capacity to translate the caring into action. In cognitive interviews, there were varying opinions on how this item should be worded. Since the ATHI aims to tease out attitudes regarding causation of homelessness, the wording from the translation proceedings (personer i hemlöshet har haft föräldrar som inte brydde sig om dem som barn) remained.

Psychometric Analysis

Background characteristics for the 228 individuals who responded to the Swedish version of ATHI are shown in Table 1. A total of 90 (39.5%) of the participants were RNs, while 138 (60.5%) were nursing students. The mean age

among the RNs was 44.9 years, compared to 31.5 years for the nursing students—that is, RNs were on average 13 years older than nursing students. Most of the participants, 81 (90.0%) of the RNs and 127 (92.0%) of the nursing students, were self-identified as female. A majority of the RNs ($n = 57$; 63.3%) had worked more than 10 years in the profession, while the most common responses among nursing students were being in the 3rd ($n = 39$; 28.3%) or 6th ($n = 38$; 27.5%) semester.

The χ^2 -value for the CFA of the Swedish version of the ATHI was 73.212 with 38 degrees of freedom ($p = .001$), resulting in a normed χ^2 -value of 1.93, thus indicating an acceptable overall fit of the model. For the heuristic goodness-of-fit indices, the resulting values of CFI (.900) and SRMR (.059) also indicated a good model fit. The RMSEA value was 0.064 (95% confidence interval [.041–.086]), with a test of the null hypothesis $RMSEA \leq .05$ (i.e., a close fit) giving $p = .145$, thus indicating a close fit of the model.

Factor loadings and item reliability for the Swedish version of the ATHI are given in Table 2. The PC factor had the strongest influence on the variable Q1, “Homeless people had parents who took little interest in them as children,” with each unit increase in PC implying a 1.11-unit increase in Q1 ($p < 0.001$), while the SC factor had the strongest influence on the variable Q9, “Recent government cutbacks in welfare have contributed substantially to the homeless problem in this country,” with a .71-unit increase in Q9 for each unit increase in SC ($p < .001$). The AFFIL factor was most strongly influencing the variable Q4, “I would feel comfortable eating a meal with a homeless person,” with each unit increase in AFFIL giving a .80-unit increase in Q4 ($p < 0.001$). The SOLNS factor, finally, had the strongest influence on the variable Q5. “Rehabilitation programs for the homeless are too expensive to operate,” with each unit increase in SOLNS implying a .66-unit increase in Q5 ($p < .001$).

The item reliabilities (R^2 -values) for the 11 items in the ATHI instrument are also given in Table 2. Only three items, Q1, Q7 (“Most circumstances of homelessness in adults can be traced to their emotional experiences in childhood”), and Q9, had item reliabilities $\geq .40$ and could thus be deemed to have an acceptable item reliability. The remaining eight items all had item reliabilities $\leq .374$, implying a questionable item reliability. In particular, items Q6, “There is little that can be done for people in homeless shelters except to see that they are comfortable and well fed,” and Q11, “A homeless person cannot really be expected to adopt a normal lifestyle,” in the SOLNS dimension had low item reliabilities, .149 and .143, respectively, suggesting that ATHI may benefit from a reduction in the number of items by removing items Q6 and Q11.

DISCUSSION

In this study, the ATHI was translated into Swedish, culturally adapted, and psychometrically analyzed. Semantic, idiomatic, experiential, and conceptual equivalence (Beaton et al., 2000) was aimed for in the translation proceedings and further explored in cognitive interviews with women having experiences of homelessness, RNs, and nursing students. We demonstrated acceptable overall model fit using the χ^2 -value for the CFA, while the heuristic goodness-of-fit indices, the CFI, and the SRMR indicated good model fits, and the RMSEA indicated a close fit. These measures have led to an acceptable and ready to use ATHI in Swedish for research purposes in Swedish healthcare contexts. Numerous studies highlight challenges with healthcare delivery to persons in homelessness (Bungay, 2013; Kerman, Gran-Ruaz, Lawrence, & Sylvestre, 2019; Omerov et al., 2020). Having

a tested and valid instrument to measure attitudes toward homelessness can be a valuable tool in measuring outcomes of future interventions targeting equal access to health care for women in homelessness. For example, a recent study described a community service learning experience for nursing students and used a questionnaire constructed for pre- and post-learning experience measurements (Gardner & Emory, 2018). It was found that nursing students demonstrated a decrease in fear and an increase in empathy for persons in homelessness, a good start with promising findings that could potentially improve the quality of care. However, the transferability of the findings is elusive with the use of a study-specific questionnaire. Using tested and validated instruments would allow cross-country comparisons as well as more robust inferences (Hudson et al., 2010).

A systematic approach, transparency, and strict adherence to guidelines regarding translation and cross-cultural validation of research instruments are imperative for the validity, reliability, and quality of the translated instruments (Maneesriwongul & Dixon, 2004). To meet these requirements in our study, we followed established guidelines, carefully documented all steps of the process, and ensured that persons with both clinical and research expertise were engaged in the project. Cognitive interviewing was utilized to assess clarity and relevance to the intended population (i.e., women in homelessness), RNs, and nursing students. Also, to properly incorporate results of the cognitive interviews, conscientious and systematic analyses were undertaken (Knafl et al., 2007). The research group comprised mixed competencies, including expertise in research methodology, psychology, nursing education, statistics, and project management to promote and ensure these requirements throughout the research process.

Table 2. Results for Confirmatory Factor Analysis of the Attitudes Towards Homelessness Inventory (ATHI)

Factor	Indicator	Factor loadings			Standardized estimate	Item reliability (R^2)
		Estimate	95% CI	p-value		
PC	Q1	1.11	.93–1.29	<.001	.86	.744
	Q7	.82	.66–.98	<.001	.71	.498
	Q8	.57	.40–.74	<.001	.45	.207
SC	Q2	.61	.45–.78	<.001	.61	.374
	Q3	.70	.48–.93	<.001	.53	.277
	Q9	.71	.52–.90	<.001	.67	.451
AFFIL	Q4	.80	.38–1.22	<.001	.61	.368
	Q10	.76	.34–1.18	<.001	.47	.224
SOLNS	Q5	.66	.42–.8	<.001	.53	.277
	Q6	.50	.29–.71	<.001	.39	.149
	Q11	.55	.30–.79	<.001	.38	.143

Note. CI = confidence interval.

As a final comment, it should be noted that during this project's discussion of language use, preferring either person-first language ("person in homelessness") or identity-first language ("homeless person") was challenging. The person-first movement in the 1970s wanted to emphasize the individual or person, rather than the illness or the disability (Crocker & Smith, 2019). The intention was to reduce stigma, stereotyping, and bias, instead favoring an emphasis on individual resources and challenges; consequently, person-first language has been widely adopted in healthcare academia. Adding to this discussion, advocates for identity-first language within health care argue that using person-first language signals impairment and disability in a normative way, instead of embracing variations as part of a person or experience (Dunn & Andrews, 2015). Clearly, this discussion falls outside the scope of this paper. However, inclusive language use is multifaceted and complex. We encourage heightened awareness in healthcare education, research, and practice regarding implications of word choice.

Strengths and Limitations

Cognitive interviews were performed in an urban area, and it is possible that persons in more remote or rural areas have different perspectives. A large number of participants were female, which is representative of the nursing profession, and nursing students were young, meaning that results should be interpreted accordingly. Since the ATHI was tested on women in homelessness, nursing students, and RNs, more studies are needed to draw inferences about men in homelessness and other healthcare professions, such as physicians, psychologists, or dietitians. However, we believe that in the spirit of allied health professionals and teamwork, the ATHI can also be useful in these groups.

Data on demographic characteristics or first language were not collected for the cognitive interviews. It is possible that strategic selection of different age groups or language origins could influence the results. However, as the present findings are the result of robust methods, we encourage the use of ATHI in different populations and further testing for validity. Another limitation of the present study is that the AFFIL factor is assessed with only two observed variables, although it is generally recommended that there should be at least three observed variables for each latent factor (O'Rourke & Hartcher, 2014).

Implications for Future Research

Persons in homelessness are confronted with health inequities resulting in shortened lives (Aldridge et al., 2018; Fazel et al., 2014). Research shows that persons in homelessness with substantial healthcare needs (Baggett, O'Connell, Singer, & Rigotti, 2010) avoid seeking health care due to previous experiences of stigma and discrimination (Omerov et al., 2020). The number of persons in homelessness is increasing in Europe (Busch-Geertsema et al., 2010), despite the fact that the annual economic growth rate in the

past decades has been favorable, thus revealing gaps in the welfare society (Karlsson & Vamstad, 2018).

The United Nations Agenda 2030 for sustainable development (United Nations, 2015) strives to promote peace and share prosperity globally; in Goal 3, "Good health and wellbeing" is highlighted, while Goal 10 focuses on "Reducing inequalities." One aspect of promoting good health and well-being in the context of homelessness is to target equal access to healthcare services. Using the ATHI questionnaire in research may contribute to knowledge about healthcare professionals' attitudes toward homelessness, which in turn may be used to shape interventions aimed at reducing experiences of stigma and discrimination for persons in homelessness when seeking health care (Richmond & Noone, 2020).

CONCLUSIONS

The ATHI has been shown to be a psychometrically acceptable research instrument for use in a Swedish healthcare context. The systematic and rigorous process applied in this study, including experts with diverse competencies in translation proceedings and testing, improved the reliability and validity of the final Swedish version of the ATHI. The instrument may be used to investigate attitudes toward women in homelessness among nursing students and RNs in Sweden to guide the shaping of interventions to target health inequities. However, results of the CFA indicated that the instrument could benefit from the omission of two items. Also, testing the ATHI within other populations, such as men in homelessness and other healthcare professionals including physicians, psychologists, or dietitians, may be warranted. **WVN**



LINKING EVIDENCE TO ACTION

- Women in homelessness meet stigma and discrimination in healthcare encounters. RNs need to identify preconceived notions to develop compassion in caring for underserved populations.
- The ATHI questionnaire covers multiple dimensions of attitudes toward homelessness, with the dichotomy of personal or societal causation at the core. After translation proceedings and factor analyses, it was found psychometrically acceptable for use in a Swedish healthcare context.
- Interventions to improve health care for women in homelessness are needed. The ATHI can be used to explore attitudes of nursing students and RNs to shape educational interventions targeting right to health and equal access to healthcare services for women in homelessness.

Author information

Anna Klarare, Senior Lecturer, Department of Health Care Sciences, Ersta Sköndal Bräcke University College, Stockholm, Sweden; Department of Women's and Children's Health, Clinical Psychology in Healthcare, Uppsala University, Uppsala, Sweden; Anna Wikman, Associate Professor Reproductive Health, Department of Women's and Children's Health, Reproductive Health, Uppsala University, Uppsala, Sweden; Mona Söderlund, Senior Lecturer, Department of Health Care Sciences, Ersta Sköndal Bräcke University College, Stockholm, Sweden; Jenny McGreevy, Licensed dietician, Licentiate degree Medical Science, Department of Dietetics, Region Sörmland, Nyköping, Sweden; Centre for Clinical Research Sörmland, Eskilstuna, Sweden; Elisabet Mattsson, Professor, Department of Health Care Sciences, Ersta Sköndal Bräcke University College, Stockholm, Sweden; Department of Women's and Children's Health, Clinical Psychology in Healthcare, Uppsala University, Uppsala, Sweden; Andreas Rosenblad, Associate Professor Medical Statistics, Department of Medical Sciences, Clinical Diabetology and Metabolism, Uppsala University, Uppsala, Sweden

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Address correspondence to Anna Klarare, Ersta Sköndal Bräcke University College, Box 11189, SE-100 61, Stockholm, Sweden; anna.klarare@kbh.uu.se

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References

- Aldridge, R. W., Story, A., Hwang, S. W., Nordentoft, M., Luchenski, S. A., Hartwell, G., ... Hayward, A. C. (2018). Morbidity and mortality in homeless individuals, prisoners, sex workers, and individuals with substance use disorders in high-income countries: A systematic review and meta-analysis. *The Lancet*, *391*(10117), 241–250. [https://doi.org/10.1016/S0140-6736\(17\)31869-X](https://doi.org/10.1016/S0140-6736(17)31869-X)
- Baggett, T. P., O'Connell, J. J., Singer, D. E., & Rigotti, N. A. (2010). The unmet health care needs of homeless adults: A

- national study. *American Journal of Public Health*, *100*(7), 1326–1333. <https://doi.org/10.2105/AJPH.2009.180109>
- Bassuk, E. L., Latta, R. E., Sember, R., Raja, S., & Richard, M. (2017). Universal design for underserved populations: Person-centered, recovery-oriented and trauma informed. *Journal of Health Care for Poor and Underserved*, *28*(3), 896–914. <https://doi.org/10.1353/hpu.2017.0087>
- Beaton, D. E., Bombardier, C., Guillemin, F., & Ferraz, M. B. (2000). Guidelines for the process of cross-cultural adaptation of self-report measures. *Spine*, *25*(24), 3186–3191.
- Biederman, D., Nichols, T., & Lindsey, E. (2013). Homeless women's experiences of social support from service providers. *Journal of Public Mental Health*, *12*(3), 136–145. <https://doi.org/10.1108/JPMH-11-2012-0021>
- Buchanan, D., Rohr, L., Stevak, L., & Sai, T. (2007). Documenting attitude changes towards homeless people: Comparing two standardised surveys. *Medical Education*, *41*(4), 346–348. <https://doi.org/10.1111/j.1365-2929.2007.02705.x>
- Bungay, V. (2013). Health care among street-involved women: The perpetuation of health inequity. *Qualitative Health Research*, *23*(8), 1016–1026. <https://doi.org/10.1177/1049732313493352>
- Busch-Geertsema, V., Edgar, W., O'Sullivan, E., & Pleace, N. (2010). *Homelessness and homeless policies in Europe*. Brussels, Belgium: European Commission.
- Corrigan, P., Pickett, S., Kraus, D., Burks, R., & Schmidt, A. (2015). Community-based participatory research examining the health care needs of African Americans who are homeless with mental illness. *Journal of Health Care for the Poor and Underserved*, *26*(1), 119–133. <https://doi.org/10.1353/hpu.2015.0018>
- Crocker, A. F., & Smith, S. N. (2019). Person-first language: Are we practicing what we preach? *Journal of Multidisciplinary Healthcare*, *12*, 125–129. <https://doi.org/10.2147/JMDH.S140067>
- Daiski, I. (2007). Perspectives of homeless people on their health and health needs priorities. *Journal of Advanced Nursing*, *58*(3), 273–281. <https://doi.org/10.1111/j.1365-2648.2007.04234.x>
- Dunn, D. S., & Andrews, E. E. (2015). Person-first and identity-first language: Developing psychologists' cultural competence using disability language. *American Psychologist*, *70*(3), 255–264. <https://doi.org/10.1037/a0038636>
- European Commission. (2013). *Confronting homelessness in the European Union. Social investment package*. Retrieved from <http://aei.pitt.edu/45917/>
- Fazel, S., Geddes, J. R., & Kushel, M. (2014). The health of homeless people in high-income countries: Descriptive epidemiology, health consequences, and clinical and policy recommendations. *The Lancet*, *384*(9953), 1529–1540. [https://doi.org/10.1016/S0140-6736\(14\)61132-6](https://doi.org/10.1016/S0140-6736(14)61132-6)
- Gardner, J., & Emory, J. (2018). Changing students' perceptions of the homeless: A community service learning experience. *Nurse Education in Practice*, *29*, 133–136. <https://doi.org/10.1016/j.nepr.2018.01.001>

- Guillemin, F., Bombardier, C., & Beaton, D. (1993). Cross-cultural adaptation of health-related quality of life measures: Literature review and proposed guidelines. *Journal of Clinical Epidemiology*, 46(12), 1417–1432.
- Gültekin, L., Brush, B. L., Baiardi, J. M., Kirk, K., & VanMaldeghem, K. (2014). Voices from the street: Exploring the realities of family homelessness. *Journal of Family Nursing*, 20(4), 390–414. <https://doi.org/10.1177/1074840714548943>
- Hudson, P. L., Trauer, T., Graham, S., Grande, G., Ewing, G., Payne, S., ... Thomas, K. (2010). A systematic review of instruments related to family caregivers of palliative care patients. *Palliative Medicine*, 24(7), 656–668. <https://doi.org/10.1177/0269216310373167>
- International Council for Nurses. (2012). *The ICN code of ethics for nurses*. Retrieved from https://www.icn.ch/sites/default/files/inline-files/2012_ICN_Codeofethicsforurses_%20eng.pdf
- Jenkins, M., & Parylo, C. (2011). Evaluation of health services received by homeless families in Leicester. *Community Practitioner*, 84(1), 21–24.
- Karlsson, M., & Vamstad, J. (2018). New deeds for new needs: Civil society action against poverty in Sweden. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 31, 1–12. <https://doi.org/10.1007/s11266-018-9964-3>
- Kerman, N., Gran-Ruaz, S., Lawrence, M., & Sylvestre, J. (2019). Perceptions of service use among currently and formerly homeless adults with mental health problems. *Community Mental Health Journal*, 55(5), 777–783. <https://doi.org/10.1007/s10597-019-00382-z>
- Kingree, J. B., & Daves, W. (1997). Preliminary validation of the attitudes toward homelessness inventory. *Journal of Community Psychology*, 25(3), 265–288.
- Knaf, K., Deatrick, J., Gallo, A., Holcombe, G., Bakitas, M., Dixon, J., & Grey, M. (2007). The analysis and interpretation of cognitive interviews for instrument development. *Research in Nursing & Health*, 30(2), 224–234. <https://doi.org/10.1002/nur.20195>
- Maneesriwongul, W., & Dixon, J. K. (2004). Instrument translation process: A methods review. *Journal of Advanced Nursing*, 48(2), 175–186. <https://doi.org/10.1111/j.1365-2648.2004.03185.x>
- Maze, C. D. (2006). Registered nurses' willingness to serve populations on the periphery of society. *Journal of Nursing Scholarship*, 38(3), 301–306.
- NBHW. (2017). *Homelessness 2017 – Scope and characteristics [Hemlöshet 2017 - omfattning och karaktär]*. (978–91-7555-437-2). Stockholm, Sweden. Retrieved from <https://www.socialstyrelsen.se/globalassets/sharepoint-dokument/artikelkatalog/ovrigt/2017-11-15.pdf>
- Nickasch, B., & Marnocha, S. K. (2009). Healthcare experiences of the homeless. *Journal of the American Academy of Nurse Practitioners*, 21(1), 39–46. <https://doi.org/10.1111/j.1745-7599.2008.00371.x>
- Omerov, P., Craftman, A. G., Mattsson, E., & Klarare, A. (2020). Homeless persons' experiences of health and social care: A systematic integrative review. *Health and Social Care in the Community*, 28(1), 1–11. <https://doi.org/10.1111/hsc.12857>
- O'Rourke, N., & Hartcher, L. (2014). *A step-by-step approach to using SAS for factor analysis and structural modeling*, 2nd ed. Cary, NC: SAS Institute.
- Papastavrou, E., Efstathiou, G., & Charalambous, A. (2011). Nurses' and patients' perceptions of caring behaviours: Quantitative systematic review of comparative studies. *Journal of Advanced Nursing*, 67(6), 1191–1205. <https://doi.org/10.1111/j.1365-2648.2010.05580.x>
- Polit, D. F., & Beck, C. T. (2016). *Nursing research: Generating and assessing evidence for nursing practice*, 10th ed. Philadelphia, PA, USA: Lippincott Williams & Wilkins.
- Rae, B. E., & Rees, S. (2015). The perceptions of homeless people regarding their healthcare needs and experiences of receiving health care. *Journal of Advanced Nursing*, 71(9), 2096–2107. <https://doi.org/10.1111/jan.12675>
- Richmond, R., & Noone, J. (2020). The impact of a service-learning foot soak experience on nursing students' attitudes towards the homeless. *Nursing Forum*, 55(2), 236–243. <https://doi.org/10.1111/nuf.12421>
- Rosseel, Y. (2012). lavaan: An R package for structural equation modeling. *Journal of Statistical Software*, 48(2), 1–36. <https://doi.org/10.18637/jss.v048.i02>
- United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development*. (A/RES/70/1) Retrieved from <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>
- Voronka, J., Wise Harris, D., Grant, J., Komaroff, J., Boyle, D., & Kennedy, A. (2014). Un/Helpful help and its discontents: Peer researchers paying attention to street life narratives to inform social work policy and practice. *Social Work in Mental Health*, 12(3), 249–279. <https://doi.org/10.1080/15332985.2013.875504>

10.1111/wvn.12477
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