Arabic Validation of the Coming Out with Mental Illness Scale

Hissa Mustafa Alabbasi[1], Zain Yaqoob Alshomeli[2]*, Noof Khaled Alabassi[3], Mai Helmi[4,5] and Haitham Jahrami[6]

[1]Department of Radiology, King Hamad University Hospital, Muharraq, Bahrain
[2]Department of Medical Oncology, Bahrain Oncology Center, Muharraq, Bahrain
[3]Former: Department of Psychiatry, College of Medicine and Medical Sciences, Arabian Gulf University, Manama,
[4]Psychology department, College of education, Sultan Qaboos University, Muscat, Oman
[5]Psychology department, Faculty of Arts, Menoufia University, Egypt
[6]Department of Psychiatry, College of Medicine and Medical Sciences, Arabian Gulf University, Manama, Bahrain

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*Corresponding author: ZainAlshomeli@gmail.com

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Abstract

Background: Stigma is the devaluation of an individual for possessing a particular attribute. When this sense of shamefulness is internalized, also called self-stigma, it can lead to detrimental effects on own's mental well-being. Arabic culture is known to have an increased rates of mental health stigma, which necessitates the need for an Arabic Version of the stigma assessment instrument.

Objective: Arabic translation and validation of the Coming Out with Mental Illness Scale (COMIS) for stigma assessment.

Methods: Translation was done following prespecified guidelines in the literature which include forward translation of the scale by two independent authors and followed by back translation to ensure the accuracy of the translation. The study followed a cross-sectional design in which data were collected from 420 Arabic-speaking participants (73% female, median age 23 years) through an online survey. Statistical analyses included internal consistency, factor analysis, and fit indices.

Results: Arabic translation of the COMIS scale yielded good internal consistency with a McDonald's omega of 0.90 and Cronbach's alpha of 0.89. Confirmatory factor analysis was also implicated in the analysis of the Arabic translation of the scale which showed a comparative fit index (CFI) of 0.83, suggesting structural validity with room for refinement, as CFI values ≥0.90 are preferred.

Conclusions: The Arabic version of the Coming Out with Mental Illness Scale shows both reliability and validity which serves as an important tool that can be integrated into clinical practice for stigma assessment which could aid in the identification of stigmatizing factors in the Arab world and enhance public awareness of mental health stigma through targeted interventions.. Further research on stigma in Arabic populations due to social and cultural factors must be investigated.

Keywords: Cronbach alpha; factor analysis; mental illness stigma; disclosure; impact.

Introduction

According to Erving Gofman, stigma is defined "as any characteristic or attribute by which a person was devalued, tainted, or considered shameful or discredited".[1] Pescosolido defined stigma as "a mark separating individuals from one another based on a socially conferred judgment that they are tainted and 'less than' and which leads to eliciting negative attitudes to its bearer".[2] The concept of stigma is intrinsically shaped by cultural and societal beliefs, leading to variations in what is considered stigmatizing across different global regions. Despite these cultural differences, a universal consensus exists that mental illnesses are indeed subject to stigma, which often deters individuals from seeking timely help. Literature identifies several distinct types of mental health stigma, including self-stigma, institutional stigma, public stigma, and workplace stigma.[1] Self-stigma is also known as internalized stigma, it describes someone's negative perspective toward their mental illness, it has been found that self-stigma has a negative impact on an individual's health outcome and quality of life, that can end up with social isolation and ostracism.[1,3] Research was conducted in the USA, that targeted the self-stigma of mental illness and its impact. It was found that individuals who deal with mental illnesses such as schizophrenia are prone to develop self-stigmatizing attitudes about themselves. As for its impact, it has been found that there is a strong correlation between internalized stigma and a variety of psychological factors such as low self-esteem, poor self-efficacy, hope, and empowerment.[3] Moreover, it is negatively correlated with medication compliance when it comes to psychiatric factors.[4]

Public stigma, fueled by misunderstanding and prejudice, leads to social isolation and fear of engagement for individuals with mental illness.[1] This significantly compromises treatment adherence and can worsen illness outcomes by undermining crucial social support. Professional stigma among healthcare workers involves two facets: their own stigmatizing attitudes toward patients, often stemming from misconceptions; and the stigma they themselves experience (e.g., psychiatrists, psychologists) due to their profession's association with mental illness. Thus, stigma impacts both patients and mental health professionals. Additionally, Institutional stigma refers to organizational policies or cultural norms that foster discriminatory attitudes and beliefs against individuals with mental illness.[1] Unlike public stigma, which is primarily perceptual, institutional stigma translates into concrete actions, such as avoidance, job rejection, or deeming individuals unqualified for positions, thereby hindering their integration and opportunities.

The global prevalence of psychiatric disorders has risen,[5] notably during the COVID-19 pandemic. A systematic review and meta-analysis across 32 countries and 398,771 individuals, reported global prevalence rates of depression at 28% and anxiety at 26.9%, underscoring the pandemic's significant impact on mental health.[6,7] The division of the Eastern Mediterranean region according to the World Health Organization (WHO) classification exhibited slightly more than average prevalence of psychiatric conditions with a depression prevalence of 32.1% and an anxiety prevalence of 30.6%.[6] Middle Eastern countries were found to be one of the countries with a high prevalence of depressive disorders with an estimated 4348.9 cases per 100,000 persons.[8] Mental illnesses were the 7th most common cause of disability-adjusted life-years (DALYs) in 2019 and the 2nd most common cause of years lived with disability (YLDs).[8] The COVID-19 era has impacted many aspects of our lives, especially mental health which suggests that more light should be shed on this topic to help these patients be socially supported by the people surrounding them as well as decrease the stigma related to mental illness. As the prevalence of depressive disorders is increasing in the Middle Eastern countries we need to increase awareness about these illnesses as well as have more scales be translated and adjusted to our culture.

Anticipated stigma is known to be prevalent in the world.[9,10] When perceived stigma by patients with serious mental illness (SMI) was compared across different cultures and geographical places, the Middle East, alongside Southeast Asia, showed a higher percentage of self-stigma which was 39%.[11] In Arab nations, stigmatizing beliefs may be tied to a fear of ruining the family's reputation or sentiments of shame for having a mental illness. Furthermore, being labeled as mentally ill might limit marriage opportunities or work options. Such beliefs are also held by educated groups, as a study of university students revealed that 70% of them support keeping mental illness hidden from family members.[12,13] Nevertheless, data about the prevalence of stigma in different Arab countries is lacking with a scarcity of mental illness scales translated into Arabic.[14,15] With regards to Arab world, A systematic review from 2018 established the intrinsic cultural linkage of mental illness, revealing widespread stigmatizing attitudes, beliefs, and behaviors toward mental health treatment within Arab communities, impacting patients, care providers, and the general public.[13] A 2016 Omani study of 197 psychiatric patients found disclosure and discrimination were the main drivers of perceived stigma. Demographics and diagnosis didn't significantly impact

this perception.[16] Another study that was conducted in 2019 among 282 students at a university in Qatar to ascertain their knowledge, beliefs, and attitudes (KAB) concerning mental illness and to identify any demographic variations based on gender, nationality, or field of study. The findings indicated that a significant percentage of participating students endorsed stigmatizing KAB about mental illness, a pattern consistent with observations within the broader Qatari population.[17]

One research suggested that disclosing mental illness diagnosis to others might be one way to reduce the impact of perceived stigma on the person's quality of life.[3] In that context, the Coming Out with Mental Illness Scale (COMIS) was the first instrument developed to assess reasons for revealing an individual's diagnosis of mental illness.[18] The questionnaire was synthesized based on different methods and qualitative data from interviews conducted with a group of society who were stigmatized by their community which yielded multiple themes and concepts based on which the content of the questionnaire was deduced. The instrument compared their preference for coming out vs staying in and the reasons behind choosing either one which was followed by a quantitative analysis of the data.[18] The scale starts with asking the participant whether the participant has revealed their mental illness, followed by 21 items divided into advantages of coming out (7 items) and advantages of not doing so (14 items) with each question rating from 1 to 7 points.[18] The instrument showed both the reliability and validity of COMIS.[18]

Over the past years, the effect of stigma on mental health has been explored worldwide. On the other hand, few researches have been made to assess the role of stigma in Arab countries. It has been reported that stigma negatively affects people with mental illnesses as they delay seeking help due to the fear of being labeled as mentally ill.[19] Seeking mental health care is done when symptoms are very severe and are noticeable by people other than family members.[20] It is believed that all family members are stigmatized when a patient in the family is mentally ill as this limits marriage and job opportunities.[13,21] This all proves that mental illnesses are culturally dependent and these misconceptions should be acted on to help patients receive the treatment and support needed.

This study aims to validate an Arabic version of the Coming Out with Mental Illness Scale (COMIS) to address the gap in culturally relevant tools for assessing mental health stigma in the Arab world, supporting efforts to reduce stigma and improve mental health outcomes.Furthermore, this scale once translated and validated could then be used on mentally ill patients in the Middle East to reveal whether these patients are open to disclosing their mental illness or not. Based on that further awareness could be made to reduce the burden of mental illnesses on these patients and the stigma related to it.

Methods

The translation process followed guidelines by Tsang et al.[22] and Arafat et al.[23] The translation process began by obtaining permission from the developer, Professor Patrick Corrigan, to translate Coming Out with Mental Illness Scale into Arabic and to validate it.[18] After obtaining permission, translation and back translation was done following a previously described guideline.[22]

The process involves the translation of a survey or scale from one language to another, as well as the translation of the response options and field instructions, to ensure that the item's meaning and expression are accurate in both the target and source language. This step was carried out by two of the authors who are Medical students their mother language is Arabic and who are bilingual, studying medical school in English language, considering English as their second language.

The importance of this process helps to ensure an equivalent response rate throughout the study, regardless of the language spoken. Both Arabic versions were then reviewed, compared, and combined by an Arabic language consultant, who is certified with bachelor's degree in Arabic language and has an experience with teaching Arabic over 30 years.

Back translation can also be used to validate the quality of the translated version of the survey or scale. This process involves back-and-forth between the source and target language versions, with the objective of ensuring that the translation is accurate and to identify any ambiguities or issues that arise during the translation process. This is an essential component of scales validation and can help to ensure that the survey or scale instruments produce consistent results across various language populations. The back-translation step to English was done by another bilingual and native Arabic speaker author who has not read or viewed the original version prior to translating. The

Arabic version and the back translated English version were reviewed, compared, and matched. It revealed a matching rate of 95%, in which 20 out of 21 questions were an ideal match. The non-matching question was reviewed and corrected to fit the objective of the original question.

Since the original scale had various metaphors, several adjustments and revisions were made during the English to Arabic translation process in order to provide a more straightforward Arabic version that would be easier for the target sample to understand. Additionally, several cultural adjustments were made to the scale's context to better suit the cultural characteristics of Arabic speakers. Once the back-translation process was completed, all of those adjustments and revisions were compared to ensure that the changes had no impact on or alteration of the original scale's essential context.

Translation and back translation can also help create scales that are more sensitive to cultural contexts and expressions. By including native speakers of different languages in the translation and back translation process, the survey or scale is more likely to use local expressions and terminology, making it much more relatable to participants. This results in better response rates and more accurate data.

The finalized Arabic version of the scale was inserted into a google form. The form consisted of 3 sections, the first section had a brief introduction about the study conducted with ethical considerations followed by demographic information including age, gender and 1 question that would direct the participant to section 2 or 3 based on their answer to the question. The sampling design chosen is convenient self-selection and was distributed through social media platforms and instant messaging services to Arabic speaking adults in Arab countries. Prior to distribution of the questionnaire, a pilot study was conducted on a convenient sample of 25 university students in Egypt, their native language is Arabic. to assess viability of the conducting study, to evaluate the validity of the Arabic version of the scale and to identify any adjustments that will be required to carry out the full study protocol.

Positive feedback was received for the Arabic version of the questionnaire, and before distributing the scale to the study's target sample, we made sure that every participant in the pilot study understood it completely.

The study's target population was adults, with a median age of 23. We selected this group because, according to our research and other studies, this is the age group most affected by stigma. in an effort to get more reliable results and to utilize those findings to support future research on the stigma within this community. Furthermore, one of the authors conducted accessibility testing for university students, providing a network of communication for individuals involved.

Through social media, a link to the survey and scale was sent to each participant. This link led them to a Google Form where they were asked to complete the scale's questions as previously mentioned.

Before the questions section, they were asked to consent to participate in the study, which included a promise of confidentiality and the right to withdraw at any moment. If they are comfortable with this, they may proceed ahead.

The ethical standards of the 1964 Helsinki declaration and its amendments were followed for this study. Ethical approval was obtained from Menoufia University, Egypt in February 2023. Participation in the study is voluntary and participants have the right to withdraw at any time. Throughout the study, personal data anonymity and confidentiality were ensured.

The R Statistical Foundation, R version 4.2.2, was used to perform all the descriptive statistics for the Arabic version of COMIS scale. Reliability analysis was calculated using Cronbach's alpha coefficient and McDonald's Omega coefficient.[24] The cutoff for a good internal consistency is a value of >0.85 and a value >0.90 is the cutoff for an excellent internal consistency.[24] All items of the Arabic version of COMIS had an internal consistency >0.80 which is considered reliable. Confirmatory factor analysis (CFA) was implicated to assess the Arabic version of COMIS scale.[25] Factor analysis is a popular method of statistical analysis that is used to examine relationships between variables. Factor analysis helps explain the underlying structure of a data set and it allows researchers to discover new insights about a population. A key component of factor analysis is the use of fit indices, which are used to assess how well a particular factor structure can explain observed data.

Fit indices measure how closely a model fits a set of data. They are typically calculated by comparing the observed data to a predefined value, and then measuring the difference between the two. For example, if the

observed data is greater than the predefined value, then the difference between them is considered to be a good fit. On the other hand, if the observed data is smaller than the predefined value, then the difference between them is considered to be a bad fit. The fit measures utilized in this study were comparative fit index (CFI), Tucker-Lewis index (TLI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR).[26]

In interpretations reliability was assessed using Cronbach's alpha and McDonald's omega, with thresholds of >0.85 (good) and >0.90 (excellent) (24). Confirmatory factor analysis (CFA) evaluated structural validity, with fit indices including CFI, TLI, RMSEA, and SRMR. RMSEA >0.10 indicates poor fit, while CFI and TLI ≥0.90 suggest good fit.[26]

Results

A total of 420 participants were incorporated in this study. The age groups of the participants were between 18 and 60 years old with a median of 23 years. From the 420 participants 308 (73%) were female and 112 (27%) were male.

As described, the scale consists of two sections in addition to the demographic data and the decision to proceed to either of the two sections depends on the answer to the last question in the first section which is whether they are out about their mental illness or not. A total of 78 (19%) and 342 (81%) answered yes and no, respectively. To assess the reliability of the Arabic version of the COMIS scale Cronbach's alpha and McDonald's omega were calculated. Cronbach's alpha result was 0.89 and McDonald's omega was 0.90 which convey a good level of internal consistency and hence, indicate a reliable scale. Further details regarding the reliability statistics are mentioned in Table 1. Each section of the scale was analyzed individually and showed that the section about 'Benefits of Being out' had a reliability of 0.88 in both Cronbach's alpha and McDonald's omega. On the other hand, the section about "Benefits of Remaining in" had a reliability of 0.94 in both Cronbach's alpha and McDonald's omega. When comparing both 'Benefits of Remaining in' had an excellent internal consistency while 'Benefits of Being out had a good internal consistency.

Table 1: Coming Out with Mental Illness Scale Reliability Statistics.

Estimate	Cronbach's α	McDonald's ω
Point estimate	0.89	0.90
95% CI lower bound	0.88	0.89
95% CI upper bound	0.91	0.91
If item deleted		
COMIS - Item #1	0.90	0.91
COMIS - Item #2	0.90	0.91
COMIS - Item #3	0.90	0.91
COMIS - Item #4	0.89	0.91
COMIS - Item #5	0.89	0.91
COMIS - Item #6	0.90	0.91
COMIS - Item #7	0.89	0.90
COMIS - Item #8	0.89	0.90
COMIS - Item #9	0.89	0.90

COMIS - Item #10	0.89	0.90
COMIS - Item #11	0.89	0.90
COMIS - Item #12	0.89	0.90
COMIS - Item #13	0.89	0.90
COMIS - Item #14	0.89	0.90
COMIS - Item #15	0.89	0.90
COMIS - Item #16	0.88	0.89
COMIS - Item #17	0.89	0.90
COMIS - Item #18	0.89	0.90
COMIS - Item #19	0.89	0.90
COMIS - Item #20	0.89	0.90
COMIS - Item #21	0.89	0.90

The Arabic version of the scale was analyzed using confirmatory factor analysis (CFA). The fit measure implicated were comparative fit index (CFI), Tucker-Lewis index (TLI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR). The results of the fit measures were comparative fit index (CFI) of 0.83, Tucker-Lewis index (TLI) of 0.80, root mean square error of approximation (RMSEA) of 0.11, and standardized root mean square residual (SRMR) of 0.07. Additional details regarding the fit measures are mentioned in Table 2.

Table 2: Confirmatory Factor Analysis of the Coming Out with Mental Illness Scale.

Fit indices	**Value**
Comparative Fit Index (CFI)	0.83
Tucker-Lewis Index (TLI)	0.81
Bentler-Bonett Non-normed Fit Index (NNFI)	0.81
Bentler-Bonett Normed Fit Index (NFI)	0.80
Parsimony Normed Fit Index (PNFI)	0.72
Bollen's Relative Fit Index (RFI)	0.78
Bollen's Incremental Fit Index (IFI)	0.83
Relative Noncentrality Index (RNI)	0.83
Root mean square error of approximation (RMSEA)	0.11
RMSEA 90% CI lower bound	0.11
RMSEA 90% CI upper bound	0.12

RMSEA p-value	0.00
Standardized root mean square residual (SRMR)	0.07
Hoelter's critical N (α = .05)	78.85
Hoelter's critical N (α = .01)	84.15
Goodness of fit index (GFI)	0.77
McDonald fit index (MFI)	0.30
Expected cross validation index (ECVI)	3.04
Log-likelihood	-14541.7
Number of free parameters	43
Akaike (AIC)	29169.32
Bayesian (BIC)	29343.05
Sample-size adjusted Bayesian (SSABIC)	29206.6
X^2	1192.25; p <0.001

Discussion

To date, this is the first study that translates and validates the COMIS scale into Arabic language. Translation of the COMIS scale into the Arabic language had positive aspects. The scale offers an applicable intervention, as it does not only study the reasons for coming out versus staying in but also provides effective means that could be employed as an actual tool to help people come out with their mental illness and seek the appropriate medical care. When used as an intervention, coming out was related to the preferable impact on stress related to stigma and the revelation of mental illness.[27] It has been proven that stigma and mental illness are interconnected in Arab countries, but with this scale, it can be quantified and applied to mentally ill patients to get a better understanding of the number of patients willing to disclose their illness. This can then be used to help increase awareness in the community and help relieve the stress of stigma on these patients and their families. The other strong point of this paper is the in-depth translation process, which was conducted according to well-accepted guidelines under the supervision of experts in Arabic linguistics.

Nevertheless, the downsides of this study included the self-reporting method of the questionnaire which might have affected the accuracy of the data collected and might introduced response bias. The other limitation was that there was no evidence of mental illness diagnosis which might affect the applicability of the results in the clinical practice. This is because the questionnaire starts with whether the patient has disclosed their mental illness with family or friends and doesn't include a section with details about the type of mental illness. To increase the accuracy of the data collected it would be beneficial if the study population would include the mental illness they were diagnosed with.

Furthermore, the development of the COMIS scale was based on interviews with the gay population which might not accurately represent the cultural and demographic structure of the Arab population. Moreover, the participants were obtained through convenient sampling which might affect the overall selection process. When evaluating the disclosure of mental illness, the Arabic version of the COMIS scale demonstrated both validity and reliability. Analysis of the questionnaire revealed an internal consistency > 0.80, Cronbach's alpha result was 0.89 and McDonald's omega was 0.90, which indicates a reliable scale.

The study of this scale can help to foster dialogue around mental health that is rooted in understanding and acceptance. It could be used in school settings, workplaces, and other settings with a mental health focus as the language used in the scale is simple and could be applied in different sectors. More research is needed regarding stigma in Arab countries, looking at the relationship between coming out and different mental illnesses and comparing the frequency of the different reasons for coming out across different Arab countries which then can be used to help increase awareness about mental illness by having data to support the suffering of these patients in regards to stigma related to mental illness which is of cultural basis. Limitations include reliance on self-reported data without diagnostic verification, potentially introducing response bias, and the predominantly Egyptian sample, which limits generalizability across Arab countries. Face and content validity were ensured through expert review, but criterion and discriminative validity were not assessed due to study constraints. Future studies should include clinical diagnoses and multi-country samples.

Mental illnesses have become prevalent worldwide which requires more attention to be applied to this topic. Providing different tools is an effective way to change cultural behaviors and increase awareness. The translation of this scale allows Arabic-speaking individuals a greater understanding of the stigma surrounding mental health and encourages them to seek out appropriate resources.

Conclusion

The Arabic COMIS is a reliable and potentially valid tool for stigma assessment, with potential to support mental health interventions, such as stigma reduction campaigns and clinical tools to encourage disclosure. Further research should address cultural variations in stigma across Arab countries.

Declarations

Ethical approval: Was obtained from Menoufia University, Egypt.

Informed consent: Informed consents of the participants were obtained prior to conducting any research.

Availability of data and materials: Available upon request.

Competing interests: All authors declare no conflict of interest.

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Supplemental material: Coming-Out with Mental Illness Scale, Arabic version.

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