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Validating the Arabic Coming Out with Mental Illness Scale (COMIS-Ar)

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ABSTRACT

Objectives: In Arab cultures, significant social stigma impedes the disclosure of mental illness and seeking professional help. To date, no validated Arabic tool exists to assess these perceived barriers. Therefore, we aimed to translate the Coming Out with Mental Illness Scale (COMIS) into Arabic and validate it for Arabic-speaking populations. ***Methods***: We generated an Arabic translation of COMIS (COMIS-Ar) using standard forward–backward translation procedures. The instrument was tested via a cross-sectional online survey among Arabic-speaking participants. Internal consistency, confirmatory factor analysis (CFA), and model fit indices were assessed. ***Results:*** A total of 420 Arabic-speaking adults of median age of 23 years (range 18–60) completed the survey; 73.3% were female. The COMIS-Ar showed overall good internal reliability; Cronbach's alpha (α) = 0.89; McDonald's omega (ω) = 0.90. Factor 1 on 'Benefits of being out' showed good reliability ($\alpha = 0.88$; $\omega = 0.88$), while Factor 2 on 'Benefits of remaining in' achieved 'excellent' reliability ($\alpha = 0.94$; $\omega = 0.94$). The overall CFA indicated a structural validity of comparative fit index = 0.83 with a root mean square error of approximation of 0.11, suggesting scope for further refinement. ***Conclusions:*** The COMIS-Ar is a reliable and potentially valid instrument, albeit with limitations, to assess mental health disclosure-related barriers among Arabic speakers. As a preliminary model with limited testing, its cautious use may aid clinicians to identify the obstacles, including self-stigma in this population and plan targeted interventions, in addition to enhancing public awareness of mental health stigma. Additional psychometric studies are required to enhance the scale.

Since ancient times, human societies have striven to maintain social order and uniformity of behavior according to each member's social status and role.[1] Obvious deviance, whether in physical appearance or behavior, was seen as a threat to socioeconomic order, attracting suspicion, fear, stigmatization, and exclusion. Serious mental illnesses such as schizophrenia and multiple personality disorders were among the most stigmatized and distanced, contributing to the barriers for the mentally ill to disclose their illness.[2]

The term 'stigma' originates from the ancient Greek *stígma* (στίγμα), a physical mark typically associated with on slaves, criminals, or outcasts. In modern European languages 'stigma' came to signify psychological or social disgrace and exclusion.[1] In 1963, Erving Goffman formally linked the term to mental illness in his groundbreaking book *Stigma: Notes on the Management of Spoiled Identity*.[3] According to him, stigma refers to any characteristic by which a person is devalued, tainted, shamed, or discredited. Pescosolido later defined stigma as a socially conferred mark that sets targeted individuals apart as tainted and inferior, leading people to show negative attitudes toward them.[4]

Types of mental health stigma may include public stigma, workplace stigma, institutional stigma, and self-stigma. These deterred affected individuals from seeking help. Public stigma leads to social isolation and fear, undermining treatment adherence, and worsening illness outcomes, further impacted by eroding social support. Professional stigma among healthcare workers manifests as stigmatizing attitudes toward patients and the stigma they themselves face due to their profession's association with mental illness. Institutional stigma, driven by organizational policies or cultural norms, results in

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concrete discriminatory actions such as avoidance, job rejection, or exclusion, hindering integration.[5]

Self-stigma (internalized stigma) is characterized by negative perceptions of one's own mental illness, which further impacts one's health outcomes and quality of life, often exacerbating social isolation and ostracism.[5,6] Research in the USA showed that individuals with disorders such as schizophrenia are prone to self-stigmatizing attitudes—correlating strongly with low self-esteem and self-efficacy, reduced hope and empowerment, and poor medication compliance.[6,7]

Despite significant advances in psychiatric neuroscience and public awareness, mental-health stigma remains deeply entrenched.[8] Mental illnesses face greater stigma than physical ones due to invisibility, societal fears, and genetic misconceptions. There is still an overgeneralized negative public perception about mental illnesses, often based on noticeable disruptive behavior by a minority of patients, who may need long-term treatment.[9] Social media may also contribute to spreading trivialization, denial, or demonization of mental illnesses.[10]

Statistics indicate that the global prevalence of mental disorders is increasing.[11] During the COVID-19 pandemic, there was an additional surge—particularly in affective symptoms of depression (28%) and anxiety (26.9%).[12] Eastern Mediterranean region, which includes most Arab countries, recorded higher rates of depression (32.1%) and anxiety (30.6%) during this period.[13,14]

Research shows that compared to the individualist cultures of Euro-American populations, barriers to mental illness disclosure are higher in collectivist cultures in East Asia, Southeast Asia, South Asia, and the Middle East—especially the Arab world.[15]

Arab collectivism has deep historical roots, shaped by the need for survival in harsh, resource-scarce environments. These pressures gave rise to several positive cultural traits—resilience, family bonds, loyalty to kin, collective responsibility, respect for elders, social solidarity, hospitality to strangers, and moral accountability—which continue to characterize Arab societies today. However, in the modern globalized age, these also have increasing costs, especially due to strict traditionalism, honor culture, and insistence on social conformity. Thus, Arab mental health patients are at risk of experiencing significant anticipated stigma and self-stigma (39%) linked to fears of damaging family reputation, marriage opportunities, job prospects, etc.[16,17,18] A 2024 meta-analysis of 73 psychosis studies among Arab populations worldwide (both native and diaspora) reported high rates of mental health stigma.[19]

In the Arabian Peninsula, mental health stigma is a major barrier to seeking help, as a recent Saudi Arabian study suggests.[20] In Oman, a 2016 study of 197 psychiatric patients found disclosure and discrimination to be the main drivers of perceived stigma, irrespective of patient demography or diagnosis.[21] A study among 282 university students in Qatar in 2019 also found significant levels of mental illness stigma, a pattern consistent with the broader Qatari population.[22]

However, most research on mental health stigma has been conducted in liberal, individualist societies of Western Europe, North America, and Australasia, which promote personal autonomy and coming out opportunities. But in the Arab world, where routinely treatable affective illnesses such as depression are also strongly stigmatized, there is an urgent need for culturally adapted tools for evaluating the barriers to disclosure.

Based on the finding that disclosing one's mental illness diagnosis to others is likely to reduce the impact of perceived stigma on the person's quality of life, Corrigan et al,[23] developed the *Coming Out with Mental Illness Scale* (COMIS) to assess individuals' reasons for revealing their diagnosis of mental illness. The questionnaire was initially developed in 2003 based on different methods and qualitative data from interviews conducted with stigmatized individuals. This was further refined, retested, and published in 2010.[23] The 2010 version remains the current standard to assess an individual's preference for 'coming out' versus 'staying in' with reasons behind the choice.[23]

In Arab countries, despite the significant impact of mental health stigma in causing delays in seeking help, little research has been conducted on this, mainly due to the lack of suitable instruments in Arabic language.[17,24,25] This study aims to rectify this scarcity by creating and validating an Arabic version of the COMIS.

METHODS

The standard English COMIS comprises three sections. Section 1 has a screening question: "*Are*

you out about your mental illness?". Participants who respond 'Yes' are directed to a 21-item questionnaire about their past life in the closet and their present situation after coming out. Answer 'No' directs the user to a different set of 21 questions regarding their current non-disclosure and any future intentions to disclose. Each question is to be responded using a 7-point Likert scale (1 = 'strongly disagree' to 7 = 'strongly agree'). Each 21-item questionnaire comprises seven items assessing the perceived benefits of disclosing one's mental illness to others, and 14 items on the benefits of keeping it concealed.

First, permission for the Arabic translation of the COMIS was obtained from its developer.[23] For the translation process, we followed the standard guidelines to maintain semantic and conceptual equivalence between the source and target languages.[26,27]

The initial translation from English to Arabic was conducted independently by two of the authors. Both are native Arabic speaking medical students with fluency in English, the language of their medical education. Both their translation versions were then reviewed, compared, and consolidated by an Arabic language consultant, with a bachelor's degree in Arabic and 30 years' experience in teaching Arabic.

Back translation to English was performed by another bilingual native Arabic speaker author who was blinded to the original version. The Arabic and back-translated English versions were compared, yielding a 95% match in 20 out of 21 questions of each of the two questionnaires. The non-matching question was revised to align with the intent of the original.

Since the original scale had Western metaphoric idioms (e.g., 'in the closet' for non-disclosure), cultural and linguistic adaptations were made during translation to enhance clarity and relevance to Arabic speakers. Once the back-translation process was completed, all of those adjustments and revisions were compared to ensure that the changes had did not alter the original scale's essential context and intent. This process ensured linguistic accuracy and cultural sensitivity, thereby improving the participant's understanding of the questions and reliability of their responses.

Ethical approval was obtained from Menoufia University, Cairo, Egypt, and the study adhered to the 1964 Helsinki declaration and its amendments. Informed consent was taken from all participants, who were given the right to withdraw at any time. Personal data anonymity and confidentiality were ensured.

Before launching the main survey, a pilot study was conducted on a convenience sample of 25 Arabic-speaking university students in Egypt to assess the clarity and validity of the Arabic version of the scale as well as the feasibility of the study. The participants confirmed they clearly understood all items, and their feedback was positive.

The finalized Arabic scale was inserted into a Google Form for the main study. The form consisted of three sections (as in the original English version). Section 1 briefly introduced the study, obtained informed consent, and collected basic demographic information, including age and sex, followed by a single screening question that asked participant whether they had disclosed their mental illness—to be answered with Yes or No. Those who responded Yes were asked to answer 21 questions on section 2, assessing past concealment and current motivations for disclosure. Those who answered No were instead directed to a parallel set of 21 items regarding their reasons for concealment and intentions for future disclosure. All items were rated on a 7-point Likert scale ranging from 1 'strongly disagree' to 7 'strongly agree".

The study used a convenience sampling method. Our target population was Arabic-speaking adults, with a median age of 23 years. We selected this age group because prior research (including our own) suggested that young adults are most affected by stigma.[28] Furthermore, one of the authors conducted accessibility testing for university students, establishing a network of communication for individuals involved.

A link to the Google form containing the COMIS-Ar was distributed through social media platforms and instant messaging services to Arabic-speaking adults in Egypt, other Arab countries of North Africa, and the Arabian Gulf Cooperation Council (GCC) countries. All responses were collected anonymously and stored in a password-protected digital file. Access to the data was limited exclusively to those directly involved in data analysis, in accordance with confidentiality and data protection protocols.

Statistical analysis was performed using R version 4.2.2 (R Foundation for Statistical Computing). Internal consistency of the Arabic COMIS was calculated using Cronbach's alpha (α) and

McDonald's omega (ω).[29] Following the standard practice, we set a coefficient value > 0.85 as 'good' and > 0.90 as 'excellent' internal consistency.[29]

Confirmatory factor analysis (CFA) was used to assess the structural validity of the COMIS-Ar.[30] CFA includes fit indices, which determine how well a particular factor structure can explain observed data. We used comparative fit index (CFI), Tucker-Lewis index (TLI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR). RMSEA > 0.10 indicates poor fit, while CFI and TLI ≥ 0.90 suggest good fit.[31]

RESULTS

An absolute minimum sample size for this study was calculated to be n = 215.[32] A higher number of responses were accepted to reduce error rate. Most responses were from Egypt, with a small number from other Arabic-speaking countries. A total of 420 Arabic-speaking adults participated in this study, with all responses included in the analysis. Their median age was 23 years (range: 18–60). Three-quarters were female (308; 73.3%), while 112 (26.7%) were male.

The COMIS-Ar scale consists of two sections in addition to the demographic data. Participants were directed to one of the two sections based on their answer to the question "Are you out about your mental illness?" Those who answered Yes (78; 18.6%) completed a set of 21 items related to the 'benefits of being out,' while the remaining 342 (81.4%) who

Table 1: Reliability statistics of Arabic Coming Out with Mental Illness Scale (COMIS-Ar).

COMIS-Ar item	Cronbach's (combined)*	McDonald's (combined)*
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		
Item 1	0.90	0.91
Item 2	0.90	0.91
Item 3	0.90	0.91
Item 4	0.89	0.91
Item 5	0.89	0.91
Item 6	0.90	0.91
Item 7	0.89	0.90
Item 8	0.89	0.90
Item 9	0.89	0.90
Item 10	0.89	0.90
Item 11	0.89	0.90
Item 12	0.89	0.90
Item 13	0.89	0.90
Item 14	0.89	0.90
Item 15	0.89	0.90
Item 16	0.88	0.89
Item 17	0.89	0.90
Item 18	0.89	0.90
Item 19	0.89	0.90
Item 20	0.89	0.90
Item 21	0.89	0.90

Table 2: Confirmatory factor analysis of the Arabic Coming Out with Mental Illness Scale (COMIS-Ar).

Fit indices	Value (Combined)
Comparative fit index	0.83
Tucker-Lewis index	0.81
Bentler-Bonett non-normed fit index	0.81
Bentler-Bonett normed fit index	0.80
Parsimony normed fit index	0.72
Bollen's relative fit index	0.78
Bollen's incremental fit index	0.83
Relative noncentrality index	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	< 0.001*
Standardized root mean square residual	0.07
Hoelter's critical N (α = .05)	78.85
Hoelter's critical N (α = .01)	84.15
Goodness of fit index	0.77
McDonald fit index	0.30
Expected cross validation index	3.04
Log-likelihood	-14541.7
Number of free parameters	43
Akaike	29169.32
Bayesian	29343.05
Sample-size adjusted Bayesian	29206.6
χ^2	1192.25; p < 0.001*

*Combined: data from the two sets of 21 questions were combined for statistical analysis. *Significant at 0.05 threshold.*

answered No responded to a parallel set of 21 items on the 'benefits of remaining in.'

The overall reliability of the COMIS-Ar was strong with α coefficient of 0.89 and ω coefficient of 0.90, suggesting good internal consistency. Reliability statistics are presented in Table 1. On individual analysis of each section of the scale, Factor 1 on 'Benefits of being out' had a good reliability of 0.88 in both α and ω, while Factor 2 on 'Benefits of remaining in' had excellent reliability of 0.94 in both these parameters.

COMIS-Ar was analyzed using CFA. The results of the fit measures revealed a CFI of 0.83, TLI of 0.81, RMSEA of 0.11, and SRMR of 0.07 [Table 2].

DISCUSSION

To our knowledge, this is the first study to generate and validate an Arabic version of the COMIS-Ar, which was developed in accordance with recommended guidelines. The scale offers an applicable intervention, as it does not only study the reasons for coming out versus staying in but also provides means to help people come out with their mental illness and seek the appropriate medical care. Studies elsewhere have shown that coming out is associated with a positive impact on stress related to stigma.[33] In Arab culture, the tendency to deny and stigmatize mental illness is deeply entrenched. The COMIS-Ar scale will help quantify the prevalence of Arabic-speaking adults willing to disclose their mental illness. This information can also be used to increase awareness in the community and relieve stress on patients and their families.

While COMIS provides insights into self-stigma, it is primarily designed to measure disclosure motives.[34] The prevalence of self-stigma being is high among Arab youth; therefore, it is necessary to have a more focused measurement tool for the same.[35] For direct measurement of mental illness self-stigma, a dedicated Stigma Scale (2018) has been introduced recently.[36] Despite the scarcity of mental illness scales in Arabic there are two scales which are designed to measure mental illness stigma for this population.[37,38] These need to be investigated and could be considered along with COMIS-Ar.

Beyond mental health disclosure, it could also be explored whether the COMIS-Ar framework could be modified for use in other stigmatized populations in the Arab world who face cultural, legal, or familial barriers to disclosure. Potential target groups include adults carrying the burden of unresolved trauma of childhood abuse, survivors of honor-based abuse, victims of domestic violence, unmarried women over a certain age, former prisoners, HIV patients, and those with substance use disorders. Modifying the scale's items to reflect the specific fears and perceived benefits of disclosure of these groups could provide a powerful tool for research and intervention in these areas. A culturally sensitive adaptation of COMIS-Ar for such populations could help quantify the psychological burden of concealment, track readiness to disclose, and inform support strategies tailored to high-stigma contexts.

Strengths of this research include the fact that the scale was translated to modern Arabic dialect which is spoken and studied in all Arab countries. Moreover, the translation process followed a standardized method which reduced errors and increased objectivity. Also, although our sample was predominantly Egyptian, some participants were from the GCC and North African countries as well.

This study has several limitations. First, our reliance on self-reported data collected from educated, internet-using individuals may have introduced response bias, as it excluded individuals with low literacy or low socioeconomic status. Second, the absence of a confirmed diagnosis of mental illness in our respondents may have affected the clinical applicability of the scale. Third, nationality and detailed gender data were not collected. Fourth, the questionnaire was circulated mostly among educated and urban Egyptian youth, which may not represent other age groups and regions of Egypt or the diversity of the Arabic-speaking world. Finally, the scale used in this study had two sets of questions with similar wording but opposite directions, meant for two distinct groups (those who came out versus those who did not). However, data from both versions were combined for statistical analysis, which could have skewed the results since responses to one set may have influenced the other.

CONCLUSION

The COMIS-Ar is a newly developed scale for exploring mental health stigma and its associated factors among Arabic speakers. It has the potential to assess disclosure, stigma, and to support

mental health interventions and stigma reduction campaigns. Additional psychometric studies are required to enhance the scale. Further research is also recommended to assess the scale's validity in different Arabic-speaking populations.

Disclosure
The authors declare no conflicts of interest. No funding was received for this study.

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