WILEY

Examining the psychometric properties of the headspace Youth (mental health) Service Satisfaction Scale in a mental health service in Ireland

Elizabeth Doyle[1] | Eleanor Carey[1] | Johannes Rossouw[1] | Ailbhe Booth[1,2] |
Debra Rickwood[3,4] | Aileen O'Reilly[2,5]

[1]Jigsaw, The National Centre for Youth Mental Health, Dublin, Ireland

[2]UCD School of Psychology, University College Dublin, Dublin, Ireland

[3]Faculty of Health, University of Canberra, Canberra, Australian Capital Territory, Australia

[4]headspace National Youth Mental Health Foundation, Melbourne, Victoria, Australia

[5]ALONE, Dublin, Ireland

Correspondence
Ailbhe Booth, UCD School of Psychology, University College Dublin, Dublin, Ireland.
Email: ailbhe.booth@ucd.ie

Abstract

Introduction: Evaluating service quality and satisfaction is central to the provision of accessible and developmentally appropriate youth mental health services. However, there are limited suitable measures and a lack of published evidence on the psychometric properties of measures to assess young people's satisfaction with youth mental health services. The headspace Youth (Mental Health) Service Satisfaction Scale (YSSS) was designed and implemented to assess young people's satisfaction with headspace mental health services in Australia. This study examined the reliability and factor structure of the YSSS in a youth mental health service in Ireland.

Methods: The sample comprised 1449 young people (66.2% female) aged 12–25 years (M = 16.48, SD = 2.97). Participants completed the YSSS after their final brief intervention session through Jigsaw—The National Centre for Youth Mental Health. Confirmatory factor analysis (CFA) was performed on one- and four-factor models to test findings from previous studies. Reliability was also examined.

Results: CFA supported a single-factor structure of the YSSS, and all items were suitable for inclusion. The internal consistency of the measure was deemed acceptable ($\alpha = 0.89$).

Conclusions: Findings suggest that the YSSS is a reliable measure for monitoring satisfaction with youth mental health services in an Irish context. The measure demonstrated a unidimensional construct of satisfaction. These findings support the broader application of the YSSS and add to existing knowledge on measuring satisfaction within youth mental health services.

KEYWORDS
mental health services, psychometrics, satisfaction, youth

1 | INTRODUCTION

Adolescence into young adulthood is a peak time for the emergence of mental health difficulties (Caspi et al., 2020; Solmi et al., 2021). This developmental period represents a critical time for early intervention to support mental health (Kessler et al., 2005). However, despite the importance of early intervention, young people are less likely than any other age group to seek professional help (Rickwood et al., 2007). International evidence suggests that less than a quarter (18%–24%) of young people with depression or anxiety seek professional help (Gulliver et al., 2010). This may be for a variety of reasons such as stigma or fears of confidentiality (Gulliver et al., 2010). Ethnic and cultural minorities may also encounter additional barriers such as staff attitude, cultural belief and cultural insensitivity (Chidimma Nwokoroku et al., 2021). Generally young people are more likely to seek help from informal sources of support such as friends than formal sources of support (Wilson et al., 2005).

Traditional mental health services can be difficult to access. Services are often unfit to meet the developmental needs of young people and only available when young people reach a minimum level of distress (Killackey et al., 2020; McGorry & Mei, 2018). In response, youth mental health service models have emerged internationally, providing developmentally appropriate care for young people. These services strive to be accessible to young people and provide a holistic approach to supporting mental health (Killackey et al., 2020). A key feature of these models is a focus on continuous improvement. Feedback from young people is often incorporated as an integral part of evaluating service quality and informing service improvements.

Delivering quality services requires continuous evaluation. Satisfaction can be impacted by multiple elements. Typically, it is not just outcomes focused and often includes the physical space and delivery of treatment (Simmons et al., 2014). In particular, it is important for service providers to routinely monitor young people's satisfaction with services to ensure they are, and remain, acceptable to young people (Fortin et al., 2018; Miglietta et al., 2018). The five key characteristics of youth friendly services are that they are accessible, acceptable, equitable, appropriate and effective (Ambresin et al., 2013; WHO, 2012). Additionally, the experiences of young people will vary greatly depending on sociocultural contexts and expectations (Ambresin et al., 2013). The WHO framework for adolescent friendly health services highlights the need to assess implementation and include adolescents as stakeholders (WHO, 2012). Satisfaction surveys can help services assess how they are perceived and measure aspects related to youth satisfaction, such as accessibility (Fortin et al., 2018). There is also evidence that high levels of satisfaction correspond with improved outcomes (Rickwood et al., 2017; Urben et al., 2015). While other youth satisfaction surveys are available (e.g. the Service Satisfaction Scale), these have not been developed collaboratively with young people (Athay & Bickman, 2012).

The Youth (Mental Health) Service Satisfaction Scale (YSSS) is a service satisfaction measure developed for use in early intervention mental health services for young people aged 12–25 years. It was developed by the headspace National Youth Mental Health Foundation, Australia, for routine assessment of client satisfaction after each intervention session. The items were developed following a review of similar measures and refined through consultations with clinical staff, youth mental health researchers and young people (Simmons et al., 2014). To date, the YSSS has demonstrated acceptable reliability within an Australian context (Rickwood et al., 2017; Simmons et al., 2014). Initial pilot testing demonstrated acceptable internal consistency and identified a unidimensional construct of satisfaction (Simmons et al., 2014). Rickwood et al. (2017) further differentiated the factor structure using a larger sample after it was implemented across headspace services. They identified a four-factor model with domains measuring centre, staff, outcomes and general feedback. Test of measurement invariance in this study did not find evidence of support construct differences across gender and age groups, although older participants reported higher levels of satisfaction (Rickwood et al., 2017). Ishay et al. (2022) examined how factors such as wait time influence satisfaction in headspace, Israel; however, gender and age differences and psychometric properties were not reported. Although this questionnaire provides useful insights into young people's experience at headspace and addresses the lack of youth focused measures, the reliability and structure of the YSSS in other youth mental health service settings are undetermined. This can prevent cross-country comparisons (Redelinghuys & Morgan, 2023).

Jigsaw—The National Centre for Youth Mental Health in Ireland is a youth mental health service that provides free support to young people aged 12–25 years with mild to moderate mental health difficulties (O'Reilly, McKenna, & Fitzgerald, 2021). Jigsaw implements routine outcome measures including, the Goal Based Outcome Measure (Law, 2011), CORE-10 (Connell & Barkham, 2007) and YP-CORE (Twigg et al., 2009) which have been previously validated in the Jigsaw context (O'Reilly et al., 2016; O'Reilly, O'Brien, et al., 2021). In advocating for a youth focussed and evidence informed approach, Jigsaw began administering the headspace YSSS in April 2019. Although both organisations follow a similar model there are differences regarding service delivery which may impact results. Jigsaw services concentrate solely on mental health, while headspace also offers a wide variety of services including employment and education support. These additional supports may influence a young person's perspective of the service as well as the profile of young people in the sample. In addition, evidence suggests that patterns of formal help-seeking differ among Irish and Australian youth. In a national study of Australian young people aged 4–17 years, only 25% of young people with mental health problems sought formal help (Sawyer et al., 2001). In a more recent study, with a smaller sample, 17% of 12- to 17-year-olds in Australia sought help from a mental health professional, while friends (41%) and parents (38%) were the most common source (Grove et al., 2023). In contrast, studies in Ireland have shown only 6% of Irish adolescents sought help from a mental health professional, while 9% did not seek professional help despite feeling they needed this (Dooley et al., 2019; Dooley & Fitzgerald, 2012).

Ireland also differs in terms of population profile. According to the 2022 CSO data, Ireland's population is 77% white Irish with approximately 20% of residents born overseas (Central Statistics

Office, 2022a). The most prevalent countries of origin among residents born overseas are England/Wales, Poland and Northern Ireland (Central Statistics Office, 2022b). In contrast, while the Australian Bureau of Statistics does not collect information on race or ethnicity, there is evidence to suggest a more diverse population. In 2021, 21% of the population were born overseas with England, India and China the most prevalent countries of origin (Australian Bureau of Statistics, 2021a). Australia also has growing Aboriginal and Torres Strait Islander communities (Australian Bureau of Statistics, 2021b).

The psychometric properties of the YSSS have not previously been examined within the Irish cultural context, and the factor structure of the measure has not been replicated in another service setting. This analysis will allow constructs of youth satisfaction to be accurately compared between the two services. Therefore, the present study sought to examine the factor structure and reliability of the YSSS in a sample attending youth mental health services in Ireland.

2 | METHODS

2.1 | Context

Data from the My World Survey 2, a national survey of youth mental health in Ireland, indicated levels of anxiety and depression have increased in recent years (Dooley et al., 2019). Indeed, the estimated prevalence of common mental health disorders in Ireland appears relatively high in comparison to the rest of Europe, at 19 664 per 100 000 in Ireland compared with 16 983 per 100 000 (Castelpietra, 2022). Although data are not directly comparable across countries, Ireland also ranks fifth among European countries for rates of youth suicide, highlighting the need for early intervention and a trusted source of support (Heery, 2019).

2.2 | Participants

Participants were 1499 young people that attended Jigsaw for a brief intervention (typically six to eight sessions) and completed all items on the YSSS between 8th April 2019 – 19th March 2020. This timeframe represents a period prior to significant service disruption (due to COVID-19), when intervention sessions were delivered in-person and is comparable with Simmons et al. (2014). This represents 50.45% of young people who exited Jigsaw during this timeframe. The majority of participants identified as female (66.22%, $n = 939$), while 32.58% ($n = 462$) identified as male, and 1.20% ($n = 17$) were unsure/questioning their gender identity/other. The mean age of participants was 16.48 years ($SD = 2.97$). The sample included participants from all 12 Jigsaw services. This sample largely reflects the profile of young people who completed their engagement with Jigsaw during the data collection timeframe, who were, on average, 16.3 (SD = 3.11) years of age, the majority (63.7%; $n = 1888$) identified as female and 36.3% ($n = 1074$) identified as male (nonbinary gender identity data were

not available on the service database during the data collection window).

2.3 | Procedure

Data used in this study were collected through the Jigsaw Data System (JDS), an electronic case management and evaluation tool, as part of standard service delivery. Young people, and their parent/guardian if they were under 18, provided consent for their information to be collected and used at the beginning of their engagement with Jigsaw for research and evaluation purposes. At the end of their brief intervention, young people were invited to anonymously complete the YSSS. The YSSS was completed by the young person either on paper and returned to a drop box in reception, which was later entered onto the JDS by administrative staff, or online through the Jigsaw website.

2.4 | Measure

The headspace YSSS comprises 14 items that aim to measure satisfaction with the centre (three items, e.g., 'I felt comfortable at Jigsaw'), staff (four items, e.g., 'I felt that Jigsaw staff listened to me), outcomes (four items, e.g., 'I felt my mental health improved because of my contact with Jigsaw') and general satisfaction (three items, e.g., 'I was generally satisfied with Jigsaw'). The young person responds to items such as 'I got help for the things I wanted to get help with' on a 5-point Likert-type scale from 1 ('Strongly Disagree') to 5 ('Strongly Agree') with higher scores indicating greater satisfaction (Rickwood et al., 2017). Subscale and total satisfaction scores are calculated by averaging the total of all valid item scores. This measure previously demonstrated high internal consistency during pilot testing ($\alpha = 0.95$; Simmons et al., 2014) and follow-up studies ($\alpha = 0.93$; Rickwood et al., 2017).

2.5 | Ethics

The Jigsaw Research Ethics Committee determined that ethics approval was not required for this study as it used anonymous, routinely collected data collected as part of a service evaluation. All data collected were used and stored in compliance with the Irish Data Protection Act (2018) and the General Data Protection Regulation (GDPR 279/2016). Data collected through the YSSS are completely anonymous and cannot be connected to a young person's personal details or case notes.

2.6 | Data analysis

Descriptive and reliability analysis was conducted using SPSS version 25. Independent t-tests were used to examine differences between gender (male and female) and age (older and younger than 18 years)

	χ^2	p	CFI	TLI	RMSEA	SRMR	AIC
Four-factor model	3055.25	<0.001	0.61	0.54	0.16	0.31	32 928.46
One-factor model	780.15	<0.001	0.91	0.89	0.08	0.05	30 653.36

TABLE 1 Goodness of fit metrics of the CFA for the one-factor and four-factor models.

Note: N = 1449 respondents were included in the analysis.
Abbreviations: AIC, Akaike Information Criterion; CFA, Confirmatory factor analysis; CFI, Comparative Fit Index; SRMR, Standardised Root Mean Square Residual.

and satisfaction. Confirmatory factor analysis (CFA) was conducted using STATA 14.2. Reliability analysis was carried out using Cronbach's alpha, with values of 0.70 and above regarded as acceptable. Cronbach's alpha was used to provide information on the variance between items, and CFA was used to confirm latent constructs found in previous research.

Based on previous research (Rickwood et al., 2017; Simmons et al., 2014), CFA was performed on one-factor and four-factor models to identify the best fit for the data. Maximum-likelihood estimation was used to test the model. Model fit was assessed against the following criteria: Comparative Fit Index (CFI) values of 0.90 or higher, Standardised Root Mean Square Residual (SRMR) values of 0.08 or lower and lowest Akaike Information Criterion (AIC; Hox & Bechger, 1998; Kaplan, 2000). Chi-squares and Root Mean Square Error of Approximation were calculated and reported but not applied to assess model fit due to their sensitivity to sample size (Alavi et al., 2020; Iacobucci, 2010). Factor loadings equal to or greater than 0.40 were retained (Matsunaga, 2010).

3 | RESULTS

3.1 | Satisfaction

The majority of participants were satisfied with the service (92%, $n = 1333$). The overall mean score was 4.56 ($SD = 0.40$). Young people aged 12–17 reported significantly lower satisfaction in terms of their total and subscale scores than those aged 18–25, with small to medium effect sizes ($p < 0.001$; $d = 0.32$–0.41). There was no significant difference in satisfaction scores between males and females ($M_{males} = 4.55$ [$SD = 0.39$]; $M_{females} = 4.58$[$SD = 4.41$]; $p = 2.54$; see supporting information Table S1).

3.2 | Reliability

Results indicated an acceptable level of reliability ($\alpha = 0.89$) for the YSSS overall. Examination of the subscales from the previously identified four-factor structure (Rickwood et al., 2017) indicated that reliability among subscales was acceptable for satisfaction with outcomes ($\alpha = 0.82$), staff ($\alpha = 0.74$) and general ($\alpha = 0.72$) subscales. However, reliability was poor regarding satisfaction with the centre ($\alpha = 0.53$) subscale. This section included three questions related to travelling to the centre, getting a suitable appointment time and feeling comfortable.

3.3 | CFA

Results from the CFA revealed that the one-factor model yielded the best fit (see Table 1). The fit indices for the one-factor model revealed that CFI was above 0.90, which shows a relatively good fit (Bentler, 1990). The one-factor model had an acceptable SRMR (Browne & Cudeck, 1993) and the lowest AIC value of the two models. The root mean square error of approximation (RMSEA) value represented a mediocre fit. All factor loadings were greater that 0.4 (see Figure 1). In contrast, the four-factor model fit was poor on all indices.

4 | DISCUSSION

Youth mental health service models offer accessible early intervention support during a vital stage of development (Killackey et al., 2020). To assess young people's satisfaction with these services, inform service improvements and ensure young people's continued engagement, it is vital that young people's feedback is captured using valid, reliable and youth friendly measures. This study sought to examine the reliability and factor structure of the YSSS in a sample of young people attending youth mental health services in Ireland. Overall, the findings from this study supported a single-factor structure with acceptable internal consistency. This finding mirrors that previously identified in Simmons et al. (2014) and is also reflected in the higher order satisfaction factor identified by Rickwood et al. (2017). These results support the broader application of the YSSS beyond headspace, Australia. The findings did not, however, reflect the strongly interrelated four-factor structure identified by Rickwood et al. (2017) which included a large sample size and multiple time points. These results suggest that a total score should be used when comparing data with headspace, Australia. Nonetheless, distinguishing between domains of centre, staff and outcomes may still provide useful categories to assess the quality of services and the experiences of young people and indicate targeted areas for improvement.

This study drew on data from administering the YSSS at a single time point after a multisession brief intervention; in contrast, administration in headspace centres at multiple time points may allow latent factors to emerge as the measure is repeated over time. Multitime point completion may contribute to stronger cohesiveness among the centre-related factors of accessibility and comfort. Similarly, nuances in satisfaction with centre, outcomes and general satisfaction over time as observed by Rickwood et al. (2017) cannot be captured when data are collected at only one point in time. There may also be cultural

FIGURE 1 Confirmatory factor analysis (CFA) and factor loadings of the Youth (Mental Health) Service Satisfaction Scale (YSSS).
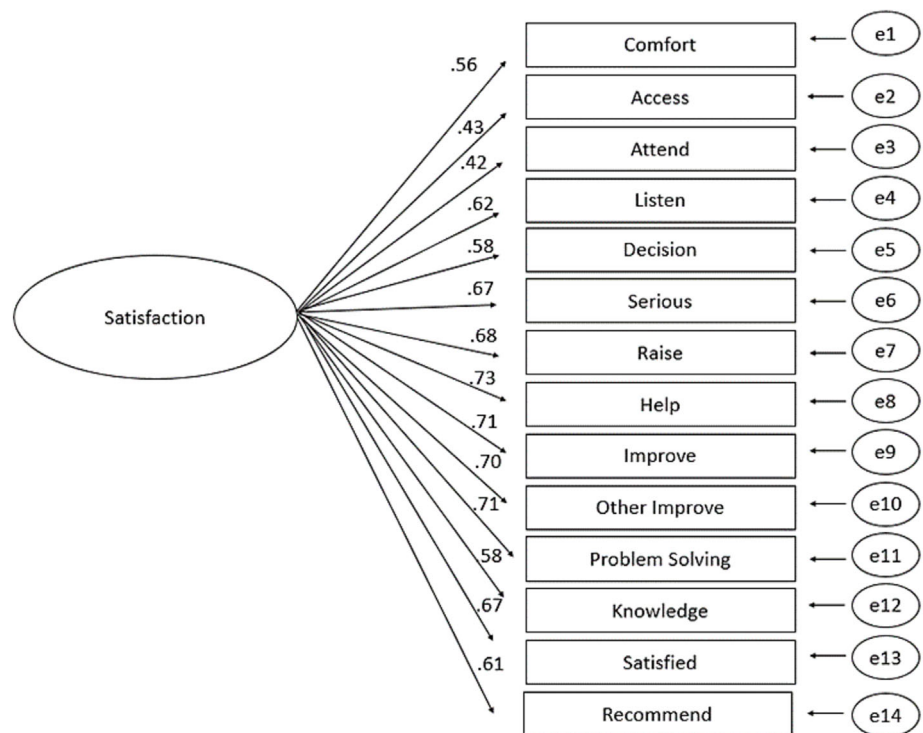
differences in the respective samples which cause different factors to emerge among populations (Gonzalez-Blanch et al., 2018) or even pronounced setting-based differences due to very different environments in Australia and Ireland (e.g. service offerings and accessibility).

This study also indicated no significant gender differences in satisfaction scores. This is similar to findings from Rickwood et al. (2017), whose high-powered study found only a trivial gender effect. However, significant age-based differences in satisfaction were evident, which mirrors findings from the headspace sample (Rickwood et al., 2017). This may reflect cross-cultural similarities in the experience of adolescents who scored significantly lower on all subscales when compared with young adults. Despite significant differences, scores for both age groups were still relatively high. These findings emphasise the importance of testing measures in different settings to ensure that they are appropriate, highlighting that young people are not a homogenous group.

The findings from this study support the suitability of the YSSS for use in youth mental health services. Establishing the psychometrics further for the YSSS will facilitate better understanding of the associations between satisfaction, service engagement and clinical outcomes in future research. Recent advances in modes of practice, such as the widespread use of phone and video (Madigan et al., 2021), might also particularly impact areas such as accessibility and therapeutic alliance. Youth satisfaction measures such as the YSSS, which was co-designed with young people, will likely play an important role in helping to understand how these different modes of delivery are received. This study focused on replicating the factor structure of previous analysis to further establish the psychometric properties of the YSSS. This analysis assessed whether what is being measured is a suitable measure of satisfaction and if this can facilitate better methods of collecting feedback from young people. However, the study is not without its limitations. In particular, as the YSSS was both anonymous and voluntary, the sample may not be representative of all young people attending Jigsaw services, particularly given the vulnerability of satisfaction measures to selection and non-response bias (Compton et al., 2019). Further assessment of gender and age invariance and differences in single and multipoint administration will be important areas of examination for further research. In order to enhance understanding of young people's pathway through mental health care and ensure services are acceptable to all young people, it will also be important for future research to explore differences in service experience from young people with diverse backgrounds.

5 | CONCLUSION

The findings from this study support the application of the YSSS for monitoring satisfaction within Irish youth mental health services. The data supported a single-factor structure, and adequate internal consistency was established, indicating cross-cultural replicability of the measure. These findings address an important gap in the evidence available on youth satisfaction with mental health services and support the standardised collection of satisfaction data.

CONFLICT OF INTEREST STATEMENT
Elizabeth Doyle is currently employed by Jigsaw, The National Centre for Youth Mental Health. Ailbhe Booth, Eleanor Carey, Aileen O'Reilly and Joe Rossouw were previously employed by Jigsaw, The National Centre for Youth Mental Health. Debra Rickwood is currently employed by headspace, Australia.

DATA AVAILABILITY STATEMENT

Data supporting the findings of this analysis were collected during routine data collection using the Jigsaw Data System (JDS). These data are used for internal service evaluation and not publically available.

ETHICS STATEMENT

The local ethics committee (Jigsaw Research Ethics Committee) determined that ethics approval was not required in this study as it used anonymous, routinely collected data collected as part of a service evaluation. All data collected are used and stored in compliance with the Irish Data Protection Act (2018) and the General Data Protection Regulation (GDPR 279/2016).

ORCID

Ailbhe Booth https://orcid.org/0000-0001-7439-6851

REFERENCES

Alavi, M., Visentin, D. C., Thapa, D. K., Hunt, G. E., Watson, R., & Cleary, M. (2020). Chi-square for model fit in confirmatory factor analysis. *Journal of Advanced Nursing*, 76(9), 2209–2211. https://doi.org/10.1111/jan.14399

Ambresin, A., Bennett, K., Patton, G. C., Sanci, L. A., & Sawyer, S. M. (2013). Assessment of youth-friendly health care: A systematic review of indicators drawn from young people's perspectives. *Journal of Adolescent Health*, 52, 670–681. https://doi.org/10.1016/j.jadohealth.2012.12.014

Athay, M. M., & Bickman, L. (2012). Development and psychometric evaluation of the youth and caregiver service satisfaction scale. *Administration and Policy in Mental Health and Mental Health Services Research*, 39, 71–77. https://doi.org/10.1007/s10488-012-0407-y

Australian Bureau of Statistics. (2021a). Estimated resident population, country of birth, age and sex—as at 30 June 1996 onwards. https://explore.data.abs.gov.au/vis?tm=estimated%20resident%20population%20by%20country%20of%20birth&pg=0&hc[dimensions]=Country%20of%20Birth&hc[People]=Population%20%3E%20Estimated%20Resident%20Population&df[ds]=PEOPLE_TOPICS&df[id]=ERP_COB&df[ag]=ABS&df[vs]=1.0.0&pd=2021%2C2021&dq=A20%2BA15%2BA10%2BA59%2BA04%2BTOT.3..AUS.A&ly[rw]=COUNTRY_BIRTH

Australian Bureau of Statistics. (2021b). Snapshot of Australia. ABS. https://www.abs.gov.au/statistics/people/people-and-communities/snapshot-australia/2021

Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107(2), 238–246. https://doi.org/10.1037/0033-2909.107.2.238

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. Bollen & J. Long (Eds.), *Testing structural equation models*. Sage.

Caspi, A., Houts, R. M., Ambler, A., Danese, A., Elliott, M. L., Hariri, A., Harrington, H., Hogan, S., Poulton, R., Ramrakha, S., Hartmann Rasmussen, L. J., Reuben, A., Richmond-Rakerd, L., Sugden, K., Wertz, J., Williams, B. S., & Moffitt, T. E. (2020). Longitudinal assessment of mental health disorders and comorbidities across 4 decades among participants in the Dunedin birth cohort study. *JAMA Network Open*, 3(4), e203221. https://doi.org/10.1001/jamanetworkopen.2020.3221

Castelpietra, G. (2022). The burden of mental disorders, substance use disorders and self-harm among young people in Europe, 1990−2019: Findings from the global burden of disease study 2019. *The Lancet Regional Health – Europe*, 16, 100341. https://doi.org/10.1016/j.lanepe.2022.100341

Central Statistics Office. (2022a). Census of Population 2022 - Summary Results. https://www.cso.ie/en/releasesandpublications/ep/p-cpsr/censusofpopulation2022-summaryresults/migrationanddiversity/#:~:text=In%20Census%202022%2C%20a%20revised,77%25%20identified%20as%20White%20Irish

Central Statistics Office. (2022b). Population usually resident and present in the state. https://ws.cso.ie/public/api.restful/PxStat.Data.Cube_API.ReadDataset/FY016/XLSX/2007/en

Chidimma Nwokoroku, S., Neil, B., Dlamini, C., & Chinonso Osuchukwu, V. (2021). A systematic review of the role of culture in the mental health service utilisation among ethnic minority groups in the United Kingdom. *Global Mental Health*, 9, 84–93. https://doi.org/10.1017/gmh.2022.2

Compton, J., Glass, N., & Fowler, T. (2019). Evidence of selection bias and non-response bias in patient satisfaction surveys. *The Iowa Orthopaedic Journal*, 39(1), 195–201.

Connell, J., & Barkham, M. (2007). *CORE-10 user manual, version 1.1*. CORE System Trust & CORE Information Management Systems Ltd.

Dooley, B., & Fitzgerald, A. (2012). *My world survey national study of youth mental health in Ireland*. Headstrong and UCD School of Psychology.

Dooley, B., O'Connor, C., Fitzgerald, A., & O'Reilly, A. (2019). *My world survey 2: The national study of youth mental health in Ireland*. Jigsaw and UCD School of Psychology.

Fortin, M., Bamvita, J., & Fleury, M. (2018). Patient satisfaction with mental health services based on Andersen's behavioral model. *The Canadian Journal of Psychiatry*, 63(2), 103–114. https://doi.org/10.1177/0706743717737030

Gonzalez-Blanch, C., Medrano, L. A., Muñoz-Navarro, R., Ruız-Rodrıguez, P., Moriana, J. A., Limonero, J. T., Schmitz, F., & Cano-Vindel, A. (2018). Factor structure and measurement invariance across various demographic groups and over time for the PHQ-9 in primary care patients in Spain. *PLoSONE*, 13(2), e0193356. https://doi.org/10.1371/journal.pone.0193356

Grove, C., Marinucci, A., & Montagni, I. (2023). Australian youth resilience and help-seeking during COVID-19: A cross-sectional study. *Behavioural Science*, 13, 121. https://doi.org/10.3390/bs13020121

Gulliver, A., Griffiths, K. M., & Christensen, H. (2010). Perceived barriers and facilitators to mental health help-seeking in young people: A systematic review. *BMC Psychiatry*, 10(113), 113. https://doi.org/10.1186/1471-244X-10-113

Heery, E. (2019). Youth mental health: Is there a need for a specialist service? Oireachtas Library and Research Service. https://data.oireachtas.ie/ie/oireachtas/libraryResearch/2020/2020-01-10_l-rs-note-youth-mental-health-is-there-a-need-for-a-specialist-service_en.pdf

Hox, J. J., & Bechger, T. M. (1998). An introduction to structural equation modelling. *Family Science Review*, 11, 354–373.

Iacobucci, D. (2010). Structural equations modeling: Fit indices, sample size, and advanced topics. *Journal of Consumer Psychology*, 20(1), 90–98. https://doi.org/10.1016/j.jcps.2009.09.003

Ishay, G. H., Zisman-Ilani, Y., & Roe, D. (2022). A longitudinal study of headspace youth oriented mental health service satisfaction, service utilization and clinical characteristics. *Early Intervention in the Real World*, 17, 404–411. https://doi.org/10.1111/eip.13347

Kaplan, D. (2000). *Structural equation modeling: Foundations and extensions* (Vol. 10). Sage Publications.

Kessler, R., Berglund, P., Demler, O., Jin, R., Merikangas, K., & Walters, E. (2005). Lifetime prevalence and age-of-onset age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 62(6), 593–602. https://doi.org/10.1001/archpsyc.62.6.593

Killackey, E., Hodges, C., Browne, V., Gow, E., Varnum, P., McGorry, P., & Purcell, R. (2020). *A global framework for youth mental health: Investing in future mental capital for individuals, communities and economies*. World Economic Forum.

Law, D. (2011). *Goals and goal-based outcomes (GBOs): Some useful information*. CAMHs Press.

Madigan, S., Racine, N., Cooke, J. E., & Korczak, D. J. (2021). COVID-19 and telemental health: Benefits challenges, and future directions. *Canadian Psychology*, *62*(1), 5–11. https://doi.org/10.1037/cap0000259

Matsunaga, M. (2010). How to factor-analyze your data right: Do's, don'ts, and how-to's. *International Journal of Psychological Research*, *3*(1), 97–110. https://doi.org/10.21500/20112084.854

McGorry, P., & Mei, C. (2018). Early intervention in youth mental health: Progress and future directions. *Evidence-Based Mental Health*, *21*(4), 182–184. https://doi.org/10.1136/ebmental-2018-300060

Miglietta, E., Belessiotis-Richardsb, C., Ruggeria, M., & Priebeb, S. (2018). Scales for assessing patient satisfaction with mental health care: A systematic review. *Journal of Psychiatric Research*, *100*, 33–46. https://doi.org/10.1016/j.jpsychires.2018.02.014

O'Reilly, A., McKenna, N., & Fitzgerald, A. (2021). Measuring goal progress using the goal-based outcome measure in jigsaw—A primary care youth mental health service. *Child and Adolescent Mental Health*, *27*, 238–245. https://doi.org/10.1111/camh.12489

O'Reilly, A., O'Brien, G., Moore, J., Duffy, J., Longmore, P., Cullinan, S., & McGrory, S. (2021). Evolution of Jigsaw—A national youth mental health service. *Early Intervention in Psychiatry*, 1-7, 561–567. https://doi.org/10.1111/eip.13218

O'Reilly, A., Peiper, N., O'Keefe, L., Illback, R., & Clayton, R. (2016). Performance of the CORE-10 and YP-CORE measures in a sample of youth engaging with a community mental health service. *International Journal of Methods in Psychiatric Research*, *25*, 324–332. https://doi.org/10.1002/mpr.1500

Redelinghuys, K., & Morgan, B. (2023). Psychometric properties of the burnout assessment tool across four countries. *BMC Public Health*, *23*, 824. https://doi.org/10.1186/s12889-023-15604-z

Rickwood, D., Deane, F. P., & Wilson, C. J. (2007). When and how do young people seek professional help for mental health problems? *The Medical Journal of Australia*, *187*(7), 35–39. https://doi.org/10.5694/j.1326-5377.2007.tb01334.x

Rickwood, D., Nicholas, A., Mazzer, K., Telford, N., Parker, A., Tanti, C., & Simmons, M. (2017). Satisfaction with youth mental health services: Further scale development and findings from headspace—Australia's national youth mental health foundation. *Early Intervention in Psychiatry*, *11*(4), 296–305. https://doi.org/10.1111/eip.12248

Sawyer, M. G., Arney, F. M., Baghurst, P. A., Clark, J. J., Graetz, B. W., Kosky, R. J., Nurcombe, B., Patton, G. C., Prior, M. R., Raphael, B., Rey, J. M., Whaites, L. C., & Zubrick, S. R. (2001). The mental health of young people in Australia: Key findings from the child and adolescent component of the national survey of mental health and well-being. *The Australian and New Zealand Journal of Psychiatry*, *35*(6), 806–814. https://doi.org/10.1046/j.1440-1614.2001.00964.x

Simmons, M., Parker, A. G., Hetrick, S. E., Telford, N., & Rickwood, D. (2014). Development of a satisfaction scale for young people attending youth mental health services. *Early Intervention in Psychiatry*, *8*(4), 382–386. https://doi.org/10.1111/eip.12104

Solmi, M., Radua, J., Olivola, M., Croce, E., Soardo, L., Salazar de Pablo, G., Shin, J., Kirkbride, J. B., Jones, P., Han Kim, J., Yeob Kim, J., Carvalho, A. F., Seeman, M. V., Correll, C. U., & Fusar-Poli, P. (2021). Age at onset of mental disorders worldwide: Large-scale meta-analysis of 192 epidemiological studies. *Molecular Psychiatry*, *27*, 281–295. https://doi.org/10.1038/s41380-021-01161-7

Twigg, E., Barkham, M., Bewick, B. M., Mulhern, B., Connell, J., & Cooper, M. (2009). The young person's CORE: Development of a brief outcome measure for young people. *Counselling and Psychotherapy Research*, *9*, 160–168. https://doi.org/10.1080/14733140902979722

Urben, S., Gloor, A., Baier, V., Mantzouranis, G., Graap, C., Cherix-Parchet, M., Henz, C., Dutoit, F., Faucherand, A., Senent, E., & Holzer, L. (2015). Patients' satisfaction with community treatment: A pilot cross-sectional survey adopting multiple perspectives. *Journal Psychiatry Mental Health Nursing*, *22*(9), 680–687. https://doi.org/10.1111/jpm.12240

WHO. (2012). Making health services adolescent friendly, developing national quality standards for adolescent-friendly health services. https://apps.who.int/iris/bitstream/handle/10665/75217/9789241503594_eng.pdf

Wilson, C. J., Deane, F. P., Ciarrochi, J. V., & Rickwood, D. (2005). Measuring help seeking intentions: Properties of the general help seeking questionnaire. *Canadian Journal of Counselling*, *39*(1), 15–28. https://ro.uow.edu.au/hbspapers/1527

SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.