Briefing note

Frameworks and tools to measure and evaluate mental health and psychosocial well-being

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Key messages

- Mental health and wellbeing indicators, when measured alongside core health outcomes, have the potential to impact health financing decisions, bolster the provision of mental health support in primary care settings and enhance health policy and processes.
- It is important to develop local scales that are more applicable in low- and middle-income country contexts, taking into account feasibility, resource availability, copyright considerations, personnel, language and other intersectional elements.
- To improve the participation of young people and adequately understand their mental health concerns, needs and well-being requirements, we must move beyond solely numeric means of scoring their responses to questionnaires or observed behaviours and include a more goal-based understanding.
- The inclusion and involvement of young people should be part of the evolution in mental health tools, with their contributions central to the design and development of mental health measures and frameworks.
- During the Covid-19 crisis, mental health has been a priority topic, with calls for a common set of metrics considered fundamental to facilitate cross-country comparisons of mental health.

Introduction

Although a variety of interventions and tools have been developed to address the mental health and well-being of young people across the world, a significant knowledge gap remains around adolescent health (Darling et al., 2020). Psychological research has been criticised for having left many young people behind, with special reference to the neglect of adolescent experiences across the African continent (Arnet, 2008 cited in Drescher et al., 2018). This neglect applies to low- and middle- income countries (LMICs) more generally, where systems for recording and understanding mental health deprivation among young people are severely under-resourced (Falkingham and Namazie, 2002 cited in Tuan et al., 2005). Darling et al. (2020) argue that much of the evidence base for this age group is derived from cross-sectional surveys in school age populations, which excludes many vulnerable young people who remain outside the formal school system. Similarly, the urban poor are rarely included in the current design of household survey data, leading to an under-representation of their conditions and experiences. This is especially important in light of the trends of rapid urbanisation in LMICs (Elsey et al., 2018). The District Health Survey (DHS) and similar household survey data in LMICs are crucial to informing health policy, setting targets for preventive and curative interventions and the financing of health requirements; a failure to update survey methods to address data gaps will impact resource provisioning for healthcare, particularly mental health services.

Despite the promotion of mental health and well-being in adolescents being made a global priority in Sustainable Development Goal 3.4, there has been little progress, especially in terms of the explicit inclusion of well-being outcomes in several integrated sexual health and HIV/AIDS programmes (Govindaswamy et al., 2020). When recorded as valuable outcomes in themselves, alongside core health outcomes, well-being indicators have the potential to impact health financing decisions, bolster the provision of mental health support in primary care settings and enhance health policy and processes more generally.

This rapid non-exhaustive review focuses on global literature about approaches, instruments, frameworks and tools to measure mental health and well-being, with priority given to those applicable to young people and adolescents. Literature from associated fields of development with demonstrable relationships to mental health and well-being, such as HIV/AIDS, have also been included (Ssewamala et al., 2012). Emphasis has been placed on measures previously used in LMICs, especially Tanzania and Viet Nam, although this has not been used to limit the searches. The review is embedded in a 2.5-year project to address the mental health needs of adolescents in schools, the community and at institutional levels in Tanzania and Viet Nam through the co-creation and application of digital technologies, funded by Fondation Botnar.

The search strategy involved bibliographic database searches (Web of Science, PubMed, Scopus, Google Scholar), hand searching (relevant websites of international organisations, non-governmental organisations and think tanks) and snowballing (i.e. looking for sources identified in relevant articles/reports). The review also benefited from input and recommendations from various advisors. Literature in English from 2005 onwards has been included. As well as a focus on LMICs, studies concerning mid- (11–15) and older (16–19) adolescents were prioritised, however other relevant literature has also been included.

This review looks to answer two research questions:

1. What are the instruments (tools, frameworks and approaches) used globally to measure the mental health of children, young people and adolescents?
2. What are the opportunities and challenges in using these instruments?

Measuring mental health and well-being

A plethora of scales, frameworks and tools (quantitative and qualitative) attempt to measure various dimensions of mental health, ranging from tools to diagnose early signs of mental distress and ill-being (with the aim of detecting and

assessing the severity of conditions such as anxiety and depression), to those measuring self-efficacy, resilience and other assets that youth identify as central to their own success. Broader surveys and surveillance systems, while not necessarily focused on mental health, are also helpful in recognising health behaviours, risk factors and regional trends, informing both preventive and treatment-based mental health approaches.[1]

Quantitative tools can be useful in providing a standardised means of analysis and comparison and also used for the screening and diagnosis of mental health disorders; in some cases, these scales are then used for follow-up consultations with specialists for treatment. Qualitative instruments often explore positive or protective factors related to mental health such as social capital or youth development assets, encouraging young people to discuss their mental health needs and identify contextually-relevant protective factors. They also offer a more substantive background to complement scale-based questionnaires.

Instruments are often self-administered and paper-based, while others use online reporting. In some LMIC contexts where literacy levels are low, oral administration through a researcher, surveyor or lay health worker is also possible (Tuan et al., 2005). In the case of young children or those with cognitive disabilities, parents, caregivers or teachers also answer on behalf of the respondents. In survey-based approaches, households or schools can be used as sampling units to identify respondents based on demographic data collection systems.

However, the paucity of useful evaluations of these measurement tools is well documented, given their varying content, objective, approach and implementation. Mughal et al. (2020) emphasise that the evidence base for many of these tools is weaker in LMICs where data and methodologies used to evaluate them are less developed or robust. As such, further research in diverse contexts is required.

Table A1 in Annex 1 outlines some of the most commonly discussed instruments to measure mental health programmes and interventions for young people, which can improve the prospects of early symptom screening and clinical diagnosis of mental health disorders by establishing the severity of the disease. The psychometric properties of these instruments, as understood by their validity and reliability, have also been included where such evidence is available (see Box 1).

Box 1 Psychometric characteristics of measurement instruments and tools

Ginty (2013) defines psychometrics as 'the construction and validation of measurement instruments and assessing if these instruments are reliable and valid forms of measurement'. For an instrument to be psychometrically sound, it has to be both reliable and valid, as defined below:

- Reliability (consistency) – it must be able to consistently measure the same construct. In terms of mental health and psychosocial support (MHPSS) measures, we analyse the instrument for 'test-retest reliability', which is often measured as the degree to which the same respondents have the same score after a period when a trait should not have changed (CORC, 2020a). Internal reliability is usually understood by the Cronbach's alpha, which Gidron (2013) describes as 'when a questionnaire of, for example, 10 items, is said to be reliable if its internal reliability (measure of repeatability) coefficient is at least 0.70'.
- Validity (accuracy) – often reported as construct validity, the overall objective of an instrument is to be sufficiently predictive of the theoretical traits it is designed to measure, explains Ginty (2013). Within construct validity are two sub-types: convergent construct validity, which 'tests the relationship between the construct and a similar measure', and discriminatory construct validity, which 'tests the relationships between the construct and an unrelated measure; this shows that the constructs are not related to something unexpected'.

1 See the World Health Organization (WHO)'s Stepwise Approach to Surveillance: www.who.int/ncds/surveillance/steps/en.

Challenges and opportunities for mental health measurement

Challenges

Importance of cultural and contextual validity

Ager et al. (2014) document the methodological challenges in the construction of scales and instruments for measuring mental health in humanitarian settings, making specific reference to the absence of 'cultural validity' as an important foundation of these tools. They argue that although psychometrically robust tools are available to measure mental health disorders like anxiety, their manifestation is driven by culture, systems and context. In measuring protective factors for well-being, the same issues arise, such as 'doing well' or 'doing better', which mean different things across contexts and social factors, requiring that all definitions must be developed in accordance with setting (van Breda, 2017; CORC, 2020b).

Moving beyond humanitarian settings, challenges in using several well-validated instruments have been noted when translating into different languages and for use across different population groups. For instance, Drescher et al. (2018) discuss the problem of finding precise translations while developing the Swahili Development Assets Framework. Wei et al. (2016) also identify that few instruments are tested for their 'cultural validity'; given that many are conceptualised in the Western context, their direct applicability in other parts of the world is a concern. In Viet Nam, the Ghent Parent Behaviour Scale (GPBS) was adapted to suit the needs of context and changed from being a child-reported survey to a parent-reported survey, posing difficulties for the accuracy of the scale itself, although it was validated in the region (Van Heel et al., 2018). In a social-capital based approach, it is crucial to validate each element of social capital, both culturally and longitudinally, because 'psychometrics do not contain any analysis from the respondents' viewpoint, a perspective which is vital in order to understand how respondents interpret and therefore answer the questions' (Bowden et al., 2002 cited in Tuan et al., 2005: 14). Villalonga-Olives et al. (2016) demonstrates the usefulness of a preliminary focus group discussion to refine the components and themes of the Adapted Social Capital Assessment Tool (A-SCAT) questionnaire based on relevant inputs from the community itself, helping to tailor the questionnaire and also improve its cultural validity.

No measurement without meaning

The Child Outcomes and Results Consortium (CORC) argues that, in requiring young people to participate and volunteer in the uptake of these questionnaires, it is essential that practitioners are able to clearly communicate its purpose. They explain that a critique often raised by young people is that 'a questionnaire can only be as useful as the way in which it is used – if you don't know why you're completing it, it's not going to be worthwhile' (CORC, 2020b). However, frequently practitioners and data collectors are not privy to why data is being collected or for what purpose. In LMICs, children and adolescents are less likely to participate in providing data to behavioural surveillance, as they remain unclear on how these data systems can benefit their health and well-being (Kishamawe et al., 2015; Darling et al., 2020). However, young people agree that outcome and feedback questionnaires are important, as 'it is easier sometimes to say something on a questionnaire than it is in real life as it were' (CORC, 2020b). They value the assurance that their symptoms will be holistically analysed.

Feasibility challenges

Resource availability is an important consideration in the administration of instruments related to mental health and psychosocial well-being. Resource-intensive measurement mechanisms are challenging to implement in LMIC contexts, where there is a lack of specialised workers such as psychiatrists and nurses, lay health workers and other trained personnel (Ager et al., 2014). The time spent answering each questionnaire must also be factored in: children are unlikely to concentrate for long periods, and adults may also have competing priorities. Time constraints on when the baseline data gathering and follow-up must be completed adds an extra layer of difficulty.

In addition, many of these instruments also need to be purchased for a fee or are subject to copyright restrictions (as in the case of the

Strengths and Difficulties Questionnaire or SDQ), lowering their potential for use in regions that require them the most (Ager et al., 2014).

Online/digital measurement possibilities
As the Covid-19 pandemic continues to affect societies across the world, online and remote systems have taken precedence in all aspects of life. While Clarke et al. (2017) discuss the growth of online mental health interventions, there is surprisingly little literature on how the progress in symptoms is measured over the course of the intervention as well upon its conclusion (Das et al., 2016). While some scales offer online self-reporting, the digital divide poses challenges, especially in LMICs.

Opportunities

Moving beyond 'practitioner-led' development of scales and approaches
CORC (2020b) extensively discuss the opportunity of youth involvement in the development of questionnaires, given that many of the existing instruments have been developed by practitioners. Incorporating young people's ideas into the design of measurement programmes and youth MHPSS can be helpful in making them more appealing to adolescents and improving participation, avoid them being seen as a 'tick-box exercise'. To achieve this, practitioners must be trained to facilitate youth participation in the development of the instrument itself, or at least ensure their involvement in feedback on the finalised version. For instance, a very basic example could involve the definition of improvement in a scale – an answer to 'what does it mean for an adolescent to get better?' (see CORC, n.d.). Visual representations to review goal progress, similar to the Cantril ladder approach, might be an engaging means of understanding improvements (Levin and Currie, 2015).

Mixed-methods approaches to measure mental health and psychosocial well-being
The quantitative total score-based methodology for several instruments uses cut-off points to diagnose mental disorders, concluding that an improvement has occurred based on scores that have either lowered below the cut-off or changed significantly. To improve the participation of young people and adequately understand their mental health concerns, needs and well-being requirements, we must move beyond solely numeric means of scoring their responses to questionnaires or observed behaviours. A more goal-based understanding is essential. CORC (2020b) discusses the importance of goal-based outcomes (GBOs) measurement approaches, where no particular therapy or intervention modality is chosen, but rather decisions are taken based on what the adolescent hopes to achieve in the short and long term. CORC suggest that, although cognitive behavioural therapy (CBT) and other similar treatments do give some weight to goal-setting, GBOs allow for shared decision-making at the outset of the therapeutic process and are therefore likely to be personalised to the requirements of the person seeking care. GBOs are best used in combination with other interventions, and are particularly useful when working with children and young people.

The mixed methods approach to mental health is also closely associated with the concept of intersectionality, where mental health and well-being rest on many contextual factors, cultures and social norms. For instance, in sub-Saharan Africa, the correlation between mental ill-health such as depression and the impact of HIV, including children orphaned by HIV, is well-documented (Kumakech et al., 2009; Ssewamala et al., 2012). In India, studies have explored the impacts of stress in women resulting from a lack of sanitation access, and have highlighted the possibility of using measures such as hair cortisol to identify physical manifestations of stress (Dreibelbis et al., 2018). In Tanzania and Viet Nam – this project's focus countries – the issues of stigma tied to HIV status, adolescent pregnancy as well as drug use are seen as important mental health drivers, as these are strongly tied to culturally acceptable norms and behaviours (Van Tam et al., 2012; Le and Trieu, 2014; Mwilike et al., 2018). Across LMICs, mental health is routinely associated with social stigma for people seeking help and their caregivers who express feelings of social exclusion and the lack of community support (Thuy and Berry, 2013; Mascayano et al., 2015). This underlying stigma is manifested

in negative individual behaviours such as secrecy and withdrawal, but also noted in community and institutional decision-making (Mascayano et al., 2015). Social and cultural definitions of parenting that include aggressive behaviours against young people is also noted as a driver of mental ill-health in Viet Nam (Van Heel et al., 2018). Establishing scales of improvement that are devoid of an understanding of these influences will hinder the effectiveness of programmes and policy.

Common metrics for mental health

During the Covid-19 crisis, mental health has been a priority topic, with calls for a common set of metrics considered fundamental to facilitate cross-country comparisons of mental health.[2] Although this argument has now gained traction from funders, there have been recurring pleas for the coordination of outcome measures, with different stakeholders using various methodologies from psychiatry, psychology and the social sciences (Wolpert, 2020). Flake and Fried (2019: 1) document the science of Questionable Measurement Practices (QMPs), which they define as 'decisions researchers make that raise doubts about the validity of the measures, and ultimately the validity of study conclusions'. They identify 280 different scales to measure depression alone and show that a 10-item questionnaire with sub-scales can be summed into a single score in more than 1,000 different ways, allowing for various measurement possibilities based on the researcher's degree of freedom. One solution to avoid QMPs and ensure greater collaboration and rigorous evaluation within psychology is to have transparency of process, using a checklist-based approach (ibid.: 12).

Wolpert (2020) notes that the Wellcome Trust and the National Institute of Mental Health (NIMH) have held consultations to address the opportunity for increased collaboration. They agreed on some core metrics for depression and anxiety in young people, choosing five scales for further refinement and drawing on the International Consortium of Health Outcome Measures (ICHOM).[3] More developments are expected from this collaboration; the next step is a meeting of the Common Measures Board in late 2020.

Conclusion

Measurements for mental health have evolved considerably along with critiques and improvements of existing approaches and instruments. The Covid-19 pandemic has posed new challenges for these mechanisms; it has significantly changed the way we operate and impacted mental health across all age groups. Some of the most widely used measures for screening and diagnosing mental health disorders in young people date back decades, with adaptations and translations for their use in the developing world. However, this is hampered by slower and inadequate local, culturally relevant validation practices of scales and even more minimal insight into sub-scales or components. There is also a growing range of new understandings such as QMPs and Theory of Change (ToC) based approaches which emphasise cultural validity and the real-world application of mental health interventions, using an understanding of 'contingent universals' to develop common global mental health frameworks that apply 'concepts that are true and measurable until they stop working in the field, or until the parameters of "what works" shift to a new iteration'(Bemme, 2019: 574).

This rapid non-exhaustive review suggests that the inclusion and involvement of young people should be part of this evolution, with their contributions central to the design and development of mental health measures and frameworks. The need to develop local scales which are more applicable in LMIC contexts, taking into account feasibility, resource availability, copyright considerations, personnel, language and other intersectional elements, is also important. Measures must also form an integral part of mental health interventions, combining qualitative and quantitative approaches with youth participation. All are key to making advances in measurement sciences.

2 See www.covidminds.org/recommended-scales.

3 See www.ichom.org/portfolio/depression-anxiety.

References

Ager, A., Robinson, S. and Metzler, J. (2014) *Methodologies and tools for measuring mental health and psychosocial wellbeing of children in humanitarian contexts: report of a mapping exercise for the Child Protection Working Group (CPWG) and Mental Health and Psychosocial Support (MHPSS) Reference Group*. New York: Columbia University, Columbia Group for Children in Adversity and Child Protection in Crisis (CPC) Network.

Bemme D. (2019) 'Finding "what works": theory of change, contingent universals, and virtuous failure in global mental health' *Culture, Medicine and Psychiatry* 43(4): 574–595.

Clarke, A.M., Chambers, D. and Barry, M.M. (2017) 'Bridging the digital disconnect: exploring the views of professionals on using technology to promote young people's mental health' *School Psychology International* 38(4): 380–397.

CORC – Child Outcomes Research Consortium (2020a) 'Outcomes and experience measures'. Webpage (www.corc.uk.net/outcome-experience-measures).

CORC (2020b) 'For young people'. Webpage (www.corc.uk.net/for-young-people).

CORC (n.d.) 'What do we know about how much 'better' young people are after getting help?'. Infographic. London: CORC (www.corc.uk.net/media/1515/2017_corcreport_infographic.pdf).

Darling, A.M., Assefa, N., Bärnighausen, T., et al. (2020) 'Design and field methods of the ARISE Network Adolescent Health Study' *Tropical Medicine & International Health* 25(1): 5–14.

Das, J.K., Salam, R.A., Lassi, Z.S., et al. (2016) 'Interventions for adolescent mental health: an overview of systematic reviews' *The Journal of Adolescent Health* 59(4S): S49–S60.

Dreibelbis, R., O'Reilly, K., Bhat, S., et al. (2018) *The evaluation of a sanitation intervention on sanitation-related emotional and psychological well-being among women and girls in Bihar*. New Delhi: International Initiative for Impact Evaluation.

Drescher, C.F., Johnson, L.R., Kurz, A.S., et al. (2018) 'A developmental assets approach in East Africa: can Swahili measures capture adolescent strengths and supports?' *Child & Youth Care Forum* 47(1): 23–43.

Elsey, H., Poudel, A.N., Ensor, T., et al. (2018) 'Improving household surveys and use of data to address health inequities in three Asian cities: protocol for the Surveys for Urban Equity (SUE) mixed methods and feasibility study' *BMJ Open* 8: article e024182.

Flake, J.K. and Fried, E.I. (2019) 'Measurement schmeasurement: questionable measurement practices and how to avoid them' *PsyArXiv Preprints* (https://doi.org/10.31234/osf.io/hs7wm).

Gidron, Y. (2013) 'Reliability and validity' in M.D. Gellman and J.R. Turner (eds) *Encyclopedia of behavioral medicine*. New York: Springer (https://link.springer.com/referenceworkentry/10.1007%2F978-1-4419-1005-9_1549).

Ginty, A.T. (2013) 'Psychometric properties' in M.D. Gellman and J.R. Turner (eds) *Encyclopedia of behavioral medicine*. New York: Springer (https://link.springer.com/referenceworkentry/10.1007%2F978-1-4419-1005-9_861).

Govindasamy, D., Seeley, J., Olaru, I.D., et al. (2020) 'Informing the measurement of wellbeing among young people living with HIV in sub-Saharan Africa for policy evaluations: a mixed-methods systematic review' *Health and Quality of Life Outcomes* 18: article 120.

Kishamawe, C., Isingo, R., Mtenga, B., et al. (2015) 'Health and demographic surveillance system profile: the Magu Health and Demographic Surveillance System (Magu HDSS)' *International Journal of Epidemiology* 44(6): 1851–1861.

Kumakech, E., Cantor-Graae, E., Maling, S. and Bajunirwe, F. (2009) 'Peer-group support intervention improves the psychosocial well-being of AIDS orphans: cluster randomized trial' *Social Science and Medicine* 68(6): 1038–1043.

Le, T.N. and Trieu, D.T. (2016) 'Feasibility of a mindfulness-based intervention to address youth issues in Vietnam' *Health Promotion International* 31(2): 470–479.
Levin, K.A. and Currie, C. (2014) 'Reliability and validity of an adapted version of the Cantril Ladder for use with adolescent samples' S*ocial Indicators Research* 119: 1047–1063.
Mascayano, F., Armijo, J.E. and Yang, L.H. (2015) 'Addressing stigma relating to mental illness in low- and middle-income countries' *Frontiers in Psychiatry* 6: 38 (https://doi.org/10.3389/fpsyt.2015.00038).
Mughal, A.Y., Devadas, J., Ardman, E., et al. (2020) 'A systematic review of validated screening tools for anxiety disorders and PTSD in low to middle income countries' *BMC Psychiatry* 20(1): article 338.
Mwilike, B., Shimoda, K., Oka, M., et al. (2018) 'A feasibility study of an educational program on obstetric danger signs among pregnant adolescents in Tanzania: a mixed-methods study' *International Journal of Africa Nursing Sciences* 8: 33–43.
Ssewamala, F.M., Neilands, T.B., Waldfogel, J. and Ismayilova, L. (2012) 'The impact of a comprehensive microfinance intervention on depression levels of AIDS-orphaned children in Uganda' *The Journal of Adolescent Health* 50(4): 346–352.
Thuy, N.T.M. and Berry, H.L. (2013) 'Social capital and mental health among mothers in Vietnam who have children with disabilities' *Global Health Action* 6(1): article 18886 (www.tandfonline.com/doi/full/10.3402/gha.v6i0.18886).
Tuan, T., Lan, P.T., Harpham, T., et al. (2005) *Measuring social capital and mental health in Vietnam: a validity study*. London: Save the Children UK.
van Breda, A.D. (2017) 'The youth ecological-resilience scale: a partial validation' *Research on Social Work Practice* 27(2): 248–257.
Van Heel, M., Vu, B.T., Bosmans, G., et al. (2018) 'Parenting practices in Vietnam: an investigation of the psychometric properties of the PBS-S and PCS' *Child Youth Care Forum* 48: 111–125.
Van Tam, V., Larsson, M., Pharris, A., et al. (2012) 'Peer support and improved quality of life among persons living with HIV on antiretroviral treatment: a randomised controlled trial from north-eastern Vietnam' *Health and Quality of Life Outcomes* 10: article 53 (https://hqlo.biomedcentral.com/articles/10.1186/1477-7525-10-53).
Villalonga-Olives, E., Adams, I.F. and Kawachi, I. (2016) 'The development of a bridging social capital questionnaire for use in population health research' *SSM – Population Health* 2: 613–622.
Wei, Y., McGrath, P.J., Hayden, J. and Kutcher, S. (2016) 'Measurement properties of tools measuring mental health knowledge: a systematic review' *BMC Psychiatry* 16: article 297 (www.ncbi.nlm.nih.gov/pmc/articles/PMC4995619).
Wolpert, M. (2020) 'Funders agree first common metrics for mental health science'. Linkedin, 6 July (www.linkedin.com/pulse/funders-agree-first-common-metrics-mental-health-science-wolpert).

Annex 1 Tools and frameworks to measure mental health and psychosocial well-being

Table A1 Overview of some tools and frameworks to measure mental health and psychosocial well-being

Name of scale/ index / approach/ framework	**Focus/objective** (e.g. mental health, well-being, social capital etc.)	**Type of tool and main methods** (type, components, qual./quant., how changes are assessed, how administered)	**Target groups**	**Where used/validated** (including relevant links)	**Comments**
Adapted Social Capital Assessment Tool (A-SCAT)	Social capital measurement	– Depends largely on the definition of social capital, for which no gold standard exists. – One example for questionnaire structure includes elements such as: socialisation in the work place; membership in community activities; participation in community activities; contact with similar/different people; assistance; trust of institutions, corporations and other people; trust of intimate people. – Useful to include a focus group discussion to determine if themes are applicable to the population and then alter questionnaire accordingly.	– Caregivers – General population	– The Young Live research project established content validity for use of A-SCAT among female caregivers across three different locations: urban (Hanoi), rural (Hung Yen) and mountainous (Lao Cai), although validity definitions have not included many traditional psychometric aspect including construct validity. – Good validity shown in using the scale with immigrant populations in the United States. – www.sciencedirect.com/science/article/pii/S2352827316300568 – https://ora.ox.ac.uk/objects/uuid:ab073b8e-d3f8-4272-b4f5-d423c3ed0b69	Young Lives research project used the Short A-SCAT to measure the social capital of caregivers; questionnaire altered response categories to yes/no/don't know from the original 5-point Likert scale, to reduce fatigue of the respondent.

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ARISE Network Adolescent Health Survey	An exploratory, multi-community survey to identify major adolescent health risks and disease burdens; data used to identify appropriate interventions and policy opportunities for improvements	– Standardised questionnaire on physical activity, cigarette and tobacco use, substance and drug use, mental health, sexual behaviours and practices, sexually transmitted infections, pregnancy, food security and food diversity, teeth cleaning and hand washing, feelings and friendship, school and home activities, physical attacks and injuries, health care, health status assessment and life satisfaction, as well as media and cell phone use and socio-demographic and economic background characteristics. – Communities chosen using existing health and demographic surveillance systems (HDSSs). – Questionnaire administered by research assistants in a face-to-face interview with consenting respondents.	8075 adolescents aged 10–19 in 9 communities in 7 countries: Burkina Faso, Eswatini, Ethiopia, Ghana, Nigeria, Tanzania and Uganda	– https://onlinelibrary.wiley.com/doi/abs/10.1111/tmi.13327	
Asset Cards	Qualitative discussion-based approach where participants asked what assets were important for youth to succeed	– In small groups or pairs, youth prompted to think about the main strengths and the main positive qualities that youth need in order to develop to their full potential. – Youth create responses on cards and then discuss responses, providing details and context. Asset cards then collected for later content analysis.	Youth/adolescents	– Use in Tanzania alongside other scale-based quantitative measures to capture specific cultural or contextual dimensions. – https://psycnet.apa.org/record/2017-33604-001	

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Beck Youth Inventories (BYI)	Measure to assess symptoms of depression, anxiety, anger, disruptive behaviour, and self-concept	– Self-report measure of 100 items split into 5 sub-measures, each of which can be used or together in combination. – 5 BYIs are: Beck Depression Inventory for Youth (BDI-Y); Beck Anxiety Inventory for Youth (BAI-Y); Beck Anger Inventory for Youth (BANI-Y); Beck Disruptive Inventory for Youth (BDBI-Y) and Beck Self-Concept Inventory for Youth (BSCI-Y). – Each inventory has 20 different questions surrounding thoughts and feelings associated with emotional difficulties. – Respondents rank statements based on how true they were over the past 2 weeks.	– All children and young people of ages 7–18 years – Children with specific mental disorders such as learning difficulties, sexual abuse	– Validated in a variety of clinical and non-clinical settings. – Excellent internal consistency and moderate test-retest reliability. – www.corc.uk.net/outcome-experience-measures/beck-youth-inventory – www.sciencedirect.com/science/article/pii/S0022440504000524 – www.tandfonline.com/doi/abs/10.1080/02702711.2015.1060092 – https://link.springer.com/article/10.1007/s10862-008-9100-6 – https://pubmed.ncbi.nlm.nih.gov/19167144	
Brief Sense of Community Scale (BSCS)	Questionnaire yields a score for overall sense of community	– 8-item measure of a 4-dimensional model of sense of community: needs fulfilment, group membership, influence, and emotional connection. – Participants responded to statements (e.g., "I belong in this community") using five-point, Likert-type responses ranging from strongly agree to strongly disagree. – Scores range between 0 and 32, with high scores showing a greater sense of community (SOC).	– Community residents – Youth groups	– A US study found evidence of the structural, convergent, and discriminant validity. – A study in Japan found high consistency and validity. – Previously used in Tanzania as part of the ARISE study. – www.researchgate.net/publication/229567281_Validation_of_a_Brief_Sense_of_Communtiy_Scale_Confirmation_of_the_Principal_Theory_of_Sense_of_Community – www.ncbi.nlm.nih.gov/pmc/articles/PMC5030068/#:~:text=Brief%20Sense%20of%20Community,-The%20Brief%20Sense&text=The%20BSCS%20is%20designed%20to,%2Dpoint%20Likert%2Dtype%20scoring – https://psycnet.apa.org/record/2017-33604-001	

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California Healthy Kids Survey (CHKS)	Assess factors as observed in the school-climate that makes children feel happy, positive and secure	– Draws from theories on youth strength and resilience. – Self-reported questionnaire focusing on key areas of development supports for youth in schools, families, community and the peer-group. – 3 elements in focus: positive adult relationships, high expectations (both academic and behavioural), opportunities for meaningful participation and decision-making. – A voluntary survey, conducted in print and online.	– School-going children age 10 and above	– Created by the California Department of Education in 1997, to collect and provide cost-effective data to school districts and partner communities for improvements in mental health and well-being of youth. – Used to reach more than a million students in the country so far. – https://calschls.org – www.rand.org/education-and-labor/projects/assessments/tool/2017/california-healthy-kids-survey-social-emotional-health.html	Also accompanied by a California School Staff (CSSS) and School Parents Survey (CSPS)
Cantril's Ladder (also called the Cantril Scale	Simple means of assessing life satisfaction	– Self-reporting to imagine a ladder to be a symbolic best possible and worst possible life and provide a number from 0 to 10. – Sometimes also visually represented to facilitate understanding.	General population	– Used widely in North America and Europe, as part of the Healthy Behaviour in School-age children (HBSC) study. – Showed good reliability and validity among 11-15 year old pupils in Scotland. – www.ncbi.nlm.nih.gov/pmc/articles/PMC5778415 – https://link.springer.com/article/10.1007/s11205-013-0507-4	
Center for Epidemiology Studies Depression Scale (CES-D)	A screening test for depression and depressive disorder	– Commonly used self-reporting measure. – Measures symptoms defined by the American Psychiatric Association's Diagnostic and Statistical Manual for a major depressive episode (MDE).	General population	– Previous use in Vietnam. – Despite previous widespread use, recent concerns on results interpretation has been highlighted. – www.ncbi.nlm.nih.gov/pmc/articles/PMC3585724 – www.chcr.brown.edu/pcoc/cesdscale.pdf	CES-D is free to use

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Child Behaviour Checklist subscale (CBCL)	Frequently used to assess and diagnose mental health problems, emotional and behavioural difficulties among children	– Subscales include: anxious/depressed, withdrawn/depressed, somatic complaints, social problems, thought problems, attention problems, rule-breaking behaviour, and aggressive behaviour. – Usually filled out by parents/caregivers or teachers. – CBCL consists of 113 questions, scored on a 3-point Likert scale. – Paper-based or online administration, or verbally where literacy is low.	– Youth between the ages of 6–18 – Children/ youth with specific mental health challenges and learning disabilities	– Validity of the checklist established by a study conducted on its use among primary schoolchildren. – www.ncbi.nlm.nih.gov/pmc/articles/PMC3362998 – https://onlinelibrary.wiley.com/doi/abs/10.1111/j.2044-8279.1993.tb01055.x	Widely used in youth clinical and research practice
Children's Depression Inventory (CDI)	Standardised measure of children's depressive symptoms	– 10-item scale where respondents are required to choose one of three statements that best described their feelings in the past 2 weeks. – Each answer is ranked between 0–3 as per the frequency and intensity of depressive emotions (e.g. 'I never feel sad; I feel sad sometimes and I feel sorry all the time'). Higher scores corresponding to feeling sad more often. – All items are then summed up to compute the final score. – The hypothetical score range was 0 to 20, with a higher score indicating higher levels of depression.	– Children – Young people	– Previously tested by the investigators and other researchers with AIDS- orphaned children in sub-Saharan Africa. – Used in Korea for adolescents aged 12-16 years. – CDI index demonstrated moderate internal consistency, varying test-retest abilities. – www.ncbi.nlm.nih.gov/pmc/articles/PMC4310917 – https://pubmed.ncbi.nlm.nih.gov/9256572 – https://psycnet.apa.org/record/1985-13596-001 – www.jahonline.org/article/S1054-139X(11)00283-7/fulltext	

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Connor-Davidson resilience scale (CD-RISC)	Measures how well one is equipped to bounce back after stressful events, tragedy, or trauma	– Based on 17 domains of child psychiatry and development psychology. – Comprises 25 items, each rated on a 5-point Likert scale, for a range of different responses. – Since the original scale, two shorter versions have been developed, comprising 10 (CD-RISC 10) and 2 items (CD-RISC2).	– General populations – Primary care patients – Psychiatric outpatients – Those with generalised anxiety – Post-traumatic stress disorder (PTSD)	– Showed high validity for a variety of different population groups and mental disorders. – CD-RISC 2 and 10 have since been validated in samples from the United States and are officially authorized for use. – www.connordavidson-resiliencescale.com – www.ncbi.nlm.nih.gov/pmc/articles/PMC2041449 – https://onlinelibrary.wiley.com/doi/abs/10.1002/da.10113	

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Development Assets Profile (DAP)	Socioeconomic assessment to measure growth in internal strengths and external supports of youth	– DAP scales are designed based on the Development Assets Framework – a set of 40 researched, positive experiences, supports and relationship qualities called 'external assets' and personal skills, social emotional strengths, self-perceptions, and values they need to make good choices, take responsibility for their actions, and be independent called 'internal assets'. – 58-item self-report questionnaire where statements are marked on a Likert scale-based measure from 0 (not at all or rarely) to 3 (always).	– Children aged 8-18 or as per definition of 'youth' in context – Clinicians, school counsellors, mental health practitioners, social workers – Communities, families and caregivers	– Cross-national studies indicate acceptable internal consistencies, convergent validity, and test–retest reliabilities for most DAP scales. – Evidence shows internal consistency and convergent validity in East African samples. – In US samples, younger youth have reported greater assets than older youth. – Girls report higher levels of assets in the US and East African samples. – More than a million young people have taken the DAP, making it one of the most widely used instruments of measure. – www.search-institute.org\\surveys\\choosing-a-survey\\dap – www.search-institute.org/wp-content/uploads/2018/01/DAP-User-Guide-1-2016.pdf – www.search-institute.org/our-research/development-assets/developmental-assets-framework – https://page.search-institute.org/40-developmental-assets – https://psycnet.apa.org/record/2017-33604-001 – www.researchgate.net/publication/251187638_Youth_Developmental_Assets_in_Global_Perspective_Results_from_International_Adaptations_of_the_Developmental_Assets_Profile	– Aspects of socioeconomic status are positively associated with developmental assets. – Youth with higher levels of developmental assets are less likely to skip school.
Educational Stress Scale for Adolescents (ESSA)	Aims to measure academic stress in schools	– Self-reported 16-item scale with the following subscales: pressure from study, workload, worry about grades, self-expectation, and despondency.	School-attending adolescents	– Validated previously in Vietnam. – Adequate consistency, 2-week test-retest reliability and validity in a Chinese study of 2000 adolescents – https://journals.sagepub.com/doi/10.1177/0734282910394976 – https://journals.sagepub.com/doi/abs/10.1177/1010539512440818	ELDI's contribution is its development in and for LMIC settings and its multi-dimensional analysis of stressors

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Generalised Anxiety Disorder scale (GAD-7)	To assess and measure the severity of generalised anxiety in the respondent	– 7-item self-report instrument, with each item requiring the individual to rate the severity of symptoms over the past 2 weeks. – Response options, scored based on a Likert scale 0–3 listed in terms of frequency of experiencing symptoms (ranging from 'not at all' to 'nearly every day'). – Total GAD-7 scores are between 0 and 21. For use in screening, any score greater than 10 warrants further exploration and in severity of anxiety diagnosis, cut offs of 5,10 and 15 represent mild, moderate and severe cases respectively. – Self-administered, taking about 2 minutes to complete, on average.	– Primary care patients – General populations – Adolescents with generalised anxiety disorder (GAD)	– Strong validity shown in primary care clinics across the US. – A study established that GAD-7 is useful in distinguishing between mild and moderate anxiety in adolescents. – Validated for screening for anxiety across Asia. – www.corc.uk.net/outcome-experience-measures/generalised-anxiety-disorder-assessment – www.phqscreeners.com/select-screener – https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/410326 – https://pubmed.ncbi.nlm.nih.gov/32605551	GAD-7 is free to use
General Self-Efficacy Scale (GSES)	Unidimensional scale with the aim of assessing perceived self-efficacy in coping with daily hassles as well as adapting to different life stressors	– 10-item scale that assesses an individual's belief in their ability to manage new situations based on life experiences. – Likert-scale based responses where respondents indicate their agreement with each item (e.g., "I can always manage to solve difficult problems if I try hard enough") on a Likert- type scale that ranges from 1 (not at all true) to 4 (exactly true).	– Youth, young people – Adults – Disease-specific cohorts	– GSES has demonstrated acceptable internal consistency, content validity, and structural validity across contexts. – Originally designed in German in 1981, it has since been used in a wide range of languages, populations and countries. – Studies with Tanzanian youth have yielded acceptable internal consistencies for a Swahili GSES. – Criterion-related validity documented in numerous studies. – http://userpage.fu-berlin.de/~health/selfscal.htm – www.midss.org/content/general-self-efficacy-scale-gse – https://journals.sagepub.com/doi/10.2466/pr0.1982.51.2.663 – https://psycnet.apa.org/record/2017-33604-001	Relevant for clinical practice and behaviour change

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Hopkins Symptoms Checklist-25 (HSCL-25)	Measures symptoms of anxiety and depression	– 25-item self-reported checklist, with Part I made up of 10 items useful for screening for anxiety and Part II for 15 items for depression. – Each question has 4 options scored on a Likert-scale based system ranging between 1 to 4. Responses outline severity of symptoms ('not at all', 'a little', 'quite a bit', 'extreme'). – Total score is calculated as an average of all items, while depression score is the average of 15 items in Part II. – High total score shows high levels of overall mental distress while a high depressive score is indicative of major depressive disorder (MDD). – Administered according to a guidance manual with a specialist or lay health worker.	– Antenatal populations – Primary care populations – Patients with specific disorders like HIV	– Well documented validity across contexts and populations, with validity established in Tanzania for screening major depressive disorder. – http://hprt-cambridge.org/screening/hopkins-symptom-checklist/ – https://pubmed.ncbi.nlm.nih.gov/18309755/	Initially developed for use in family planning services
Kessler Psychological Distress Scale (K10)	Used for screening and assessments, this scale measures psychological distress based on emotional, cognitive, psychophysiological and behavioural factors	– A 10-item scale measuring the frequency with which one experiences symptoms including nervousness, hopelessness, sadness, worthlessness, and fatigue over the previous month. – Likert-scale based responses ranging from 1 (none of the time) to 5 (all of the time). – Total score between 10 and 50, with higher scores showing greater mental distress. – Can be interviewer- or self-administered, paper or online. – A shortened K6 version (total score between 6 and 30) is also available with 6 items only.	– Used in general and clinical populations in different contexts and cultures	– Validity and reliability established in a variety of populations, geographies including Australia, South Africa, New Zealand, Hong Kong and American India communities. – K6 is also a validated version across contexts. – Validated for screening anxiety disorders across in Asia. – www.ncbi.nlm.nih.gov/pmc/articles/PMC5658946 – www.tac.vic.gov.au/files-to-move/media/upload/k10_english.pdf – https://pubmed.ncbi.nlm.nih.gov/32605551	

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Kutcher Adolescent Depression Scale (KADS-6)	A measure to diagnose and assess the severity of adolescent depression	– Self-report scale with versions including a longer 16-item, and 11-item format and an abbreviated 6-item scale. – Each statement requires a numbered response as per the Likert scale, measuring frequency of negative feelings and moods. – Scores between 0 and 3 are given for feelings occurring "hardly ever" to "all of the time" with a total score applicable at the end for assessment.	– Adolescents, usually starting age 12	– KADS-6 proven to be as good as the BYI in diagnosing a major depressive episode in student sample of Grade 7 to 12, also showing high levels of sensitivity and specificity not common in self-report instruments. – 11-item KADS also shown as a sensitive treatment outcome measure in a sample of adolescents with major depressive disorder (MDD). – https://pubmed.ncbi.nlm.nih.gov/12188980 – https://pubmed.ncbi.nlm.nih.gov/14642022 – https://onlinelibrary.wiley.com/doi/pdf/10.1002/9780470750933.app3	
Magu Health and Demographic Surveillance System (Magu HDSS)	Magu HDSS has contributed to Tanzanian estimates of fertility and mortality	– Linking data collected at health facilities to community-based data; monitoring voluntary counselling and testing (VCT); and assessing uptake of anti-retroviral treatment (ART). In addition, within the community, qualitative studies have been conducted to address issues linked to HIV stigma, the perception of ART access and adherence. – Records information on pregnancies, births, marriages, migrations and deaths. – Verbal autopsy (VA) interviews conducted to establish cause of death in all deaths encountered in the area. – Other implemented research activities implemented in the cohort : sero surveys every 2–3 years to collect socioeconomic data, HIV sero status and health knowledge attitude and behaviours. – Monitored and updated between one and three times a year by trained field workers.	Adults aged 15 years or more living in the rural area of North Western Tanzania	– https://academic.oup.com/ije/article/44/6/1851/2572588	Established in 1994 as part of Kisesa OpenCohort HIV Study, funded by the Tanzania-Netherlands Support Program on AIDS (TANESA) Member of the INDEPTH network

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Multigroup Ethnic Identity Measure (MEIM)	Questionnaire to assess two aspects of ethnic identity: affirmation/ commitment and exploration/search, and yields a total ethnic identity score	– In the first step, participants respond to free-response query to identify their ethnicity. – Participants then respond to 12 statements (e.g., ''I feel a strong attachment towards my own ethnic group") on a four-point Likert-type scale: strongly disagree to strongly agree. – The revised MEIM reduced the items from 12 to 6.	– High-school and college students – Pregnant mothers	– Revised MEIM demonstrated acceptable internal consistency and validity, although more studies on invariance between factors and settings is needed. – Used across populations of diverse ethnicities. Previous use in Tanzania, United States, Australia, Canada and others. – https://psycnet.apa.org/record/2017-33604-001 – https://journals.sagepub.com/doi/10.1177/074355489272003 – www.ncbi.nlm.nih.gov/pmc/articles/PMC4110058 – https://pubmed.ncbi.nlm.nih.gov/17645938 – https://pubmed.ncbi.nlm.nih.gov/25642783	Two MEIM-R subscales on exploration and commitment, differed across groups, supported the notion of ethnic identity as more salient among people of colour
Patient Health Questionnaire (PHQ-9)	Measure to diagnose depression	– 9-item self-administered questionnaire; part of a larger 3-page patient health questionnaire (PHQ) to diagnose other mental health disorders. – The PHQ contains 5 sub-scales covering depression, anxiety, somatoform, alcohol and eating. – PHQ-9 also has two shorter versions in the form of the abbreviated 8-item PHQ-8 and 2 item questionnaire (PHQ-2). – Cut off points of 5,10 and 15 are used to detect mild, moderate and severe depression.	– Adolescents – Primary care patients – Obstetric patients – Specific populations groups	– No studies on the complete PHQ. – PHQ-9 has been previously validated for use in India and among adolescents. – High sensitivity and specificity shown by all formats of the PHQ-9 in multi-site cross-sectional studies. – PHQ-9 used in Australia to measure the impact of a smartphone intervention for depression among youth. – www.sciencedirect.com/science/article/abs/pii/S0163834310000563 – https://link.springer.com/article/10.1186/s13033-018-0226-y – www.corc.uk.net/outcome-experience-measures/patient-health-questionnaire – www.cambridge.org/core/journals/psychological-medicine/article/preventing-depression-using-a-smartphone-app-a-randomized-controlled-trial/09131AFD5C2C36534ABDFE0F885FF7C4# – www.corc.uk.net\\media\\1265\\phq-9_selfreport.pdf	

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Perceived Stress Scale (PSS10)	Helps measure the degree to which situation's in one's life can be thought to be stressful, as understood through aspects such as depression, anxiety, fatigue, procrastination and life satisfaction	– Consists of 10 items rated on a 5-point Likert scale (0 to 4), with summed scores ranging from 0 to 40, with higher scores indicative of higher perceived stress. – It is a non-specified stress scale. – Questionnaire based on respondent's experiences in the previous 30 days.	– Community members aged 14–90 years – Given the general nature of the included questions, the scale is considered versatile enough for use across all population sub-groups	– Shows validity and reliability in a variety of contexts and countries including Germany and US. – German results showed good internal consistency and construct validity. – A short PSS-4 telephone based version was recently created, but showed poor internal validity. – https://bmcpsychiatry.biomedcentral.com/articles/10.1186/s12888-016-0875-9 – www.midss.org/content/perceived-stress-scale-pss	Perceived stress often correlated with demographic considerations, especially age and sex, and these must have differentiated norm values
Positive Youth Development (PYD)	Qualitative approach aimed at strengthening developmental assets of adolescents instead such as skill-building instead of correcting their problematic behaviours or recording their deficits	– Basic models incorporate 5C's (competence, confidence, character, connection, and caring) and developmental assets (significant relationships, skills, opportunities and values that promote thriving as supported by environmental resources interpersonal strengths). – All chosen criteria correspond to what is crucial for youth to learn and thrive in their specific settings (bonding, resilience, self-confidence etc.).	– All young people but more specifically high-risk youth groups like orphans, drug users etc. – Caregivers, parents or families	– Wide use in North America and few in Asia (predominantly Hong Kong), Africa, Europe, Latin America. – Used in variety of different contexts, including sports-based interventions, environmental education. – Used in school, family and community-settings. – https://link.springer.com/content/pdf/10.1007/s10566-019-09488-7.pdf – https://pediatrics.aappublications.org/content/pediatrics/early/2017/09/22/peds.2017-1543.full.pdf – https://www.jstor.org/stable/10.7721/chilyoutenvi.20.1.0123?seq=1 – https://pdfs.semanticscholar.org/0dca/e44a5588d1218dc7347dca256ee98e496a38.pdf	Most used as preventive mental health programs to foster positive aspects

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Revised Child Anxiety and Depression Scale (RCADS	Measure of anxiety and depressive symptoms in youth	– 47-item self-report questionnaire with following subscales: separation anxiety disorder, social phobia, generalized anxiety disorder, panic disorder, obsessive compulsive disorder, and low mood (major depressive disorder). – Provides a summation called the Total Anxiety Score for all five anxiety sub-scales and a Total Internalizing Score for all six sub-scales. – Administered either directly to respondent or by a clinician or a trained person and should take about 5 to 10 minutes to fill out.	Children between the ages of 8 and 18	– Good reliability in clinical samples and adequate reliability in non-clinical ones. – One week test-retest coefficients are good. – Robust internal consistency and reliability in different assessment settings, countries, and languages. – Good convergent and concurrent validity. – Widespread use globally. – www.childfirst.ucla.edu/wp-content/uploads/sites/163/2018/03/RCADSUsersGuide20150701.pdf – www.corc.uk.net/outcome-experience-measures/revised-childrens-anxiety-and-depression-scale-and-subscales	RCADS-P for parents to answer, in reporting youth symptoms available, which is similar to this. Useful in cases where children have cognitive disability and cannot answer the RCADS
Self-Reporting Questionnaire (SRQ–20)	Developed by the WHO, the SRQ–20 is a self-report questionnaire instrument to assess and screen for general aspects of nonpsychotic mental distress	– 20-item short questionnaire routinely used in the event of emergency settings. – Responses are recorded as binary (yes or no) and cover a 30-day recall period. – Summing the individual items gives a maximum total score of 20. – Administered via interview or as a paper/pencil questionnaire.	– General population – Specifically designed for LMICs primary care setting – Mothers	– Widely validated in studies across use in LMICs. – Validated for primary care screening in South Africa. – In Vietnam, scale used as a screening tool of acceptable validity in comparison to in-depth psychiatric interviews, providing preliminary evidence in its use to assess symptom expression. The scale has also been used to assess mental health in Vietnamese samples of rural and urban female, rural hospital patients and community members and nontreatment-seeking online computer-gaming communities. – Also used by the Young Lives Project to measure maternal health in Peru, Ethiopia, India and Vietnam. – www.ncbi.nlm.nih.gov/pmc/articles/PMC4779367 – https://psycnet.apa.org/buy/2014-05057-001 – https://pubmed.ncbi.nlm.nih.gov/2583955 – https://pubmed.ncbi.nlm.nih.gov/18047768 – https://pubmed.ncbi.nlm.nih.gov/19592444 – https://pubmed.ncbi.nlm.nih.gov/16615249	Tools for non-specific psychological distress are considered more useful than those disorder-specific in cases such as poorly resourced contexts, emergencies and primary care as they can identify severity of distress better

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Strengths and Difficulties Questionnaire (SDQ)	A questionnaire to screen emotions and behaviours	– SDQ consists of 25 items, representing 25 psychological attributes. – Consists of five sub-scales which are emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems, prosocial behaviour and each of these has five items. – Currently three versions of the SDQ are in existence: a short form, a longer form with an assessment on impacts and a follow-up form. – Can be administered online or on paper.	– Children/youth aged 11–17 – Parents/ caregivers – Teachers	– Vietnamese version used to measure SDQ for the ages 4–17 years in the country. – All have previously showed good reliability except for peer relationships, which was subsequently removed in this study. – SDQ has demonstrated moderate test-retest reliability, good concurrent validity as well as discriminant validity. – www.corc.uk.net/outcome-experience-measures/strengths-and-difficulties-questionnaire – https://depts.washington.edu/dbpeds/Screening%20Tools/Strengths_and_Difficulties_Questionnaire.pdf – www.sdqinfo.org/py/sdqinfo/b0.py – https://link.springer.com/article/10.1007/s10566-018-9469-7	In the Vietnamese version, parents indicated the applicability of each item statement ('Not True', 'Somewhat True', or 'Certainly True')
Student's Life Satisfaction Scale (SLSS)	Globally used measure of life satisfaction for children and young people	– Self-report questionnaire with seven items asking children and young people the extent to which they agree or disagree with a series of general statements about their life. – Items scored on a scale ranging from 1 (strongly disagree) to 6 (strongly agree), except two items listed as 'I would like to change many things in my life' and 'I wish I had a different kind of life' where responses are scored in reverse from 6 to 1. – A summary score is calculated by averaging or summing the seven items.	Young people between ages 8–18	– Good convergent validity, modest test-retest reliability and good internal consistency. – Preliminary tests on psychometric properties done with primary and middle school pupils in the US. – www.midss.org/sites/default/files/student_life.pdf – www.corc.uk.net/outcome-experience-measures/students-life-satisfaction-scale-slss/ – https://journals.sagepub.com/doi/abs/10.1177/0143034391123010	

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Swahili Measure of Youth Development	Expand psychometric capacity to assess development assets using Swahili translations of the DAP and related PYD measures.	– Combination of the DAP and additional PYD-based concepts. – DAP internal assets expanded to include self-efficacy and ethnic identity given their relevance to East Africa. – Supplementing DAP external assets, sense of community and community participation were included given the centrality of collective values and community in Tanzania. – Open-ended asset listing and focus groups provide complementary data and identify areas for further investigation.	Tanzanian youth below age 18	– Psychometric results for 1,241 diverse Tanzanian young people from 11 regions in the country were evaluated. – Most assets scales reached at least promising internal consistency with the DAP. – PYD variables were positively correlated with each other, indicative of convergent validity. – Overall, the test–retest reliability and cross-language equivalency were poor, in contrast with previous cross-national studies. – https://psycnet.apa.org/record/2017-33604-001	
Tennessee Self-Concept Scale: Second Edition (TSCS: 2)	Standardised self-rated health measure to measure self-esteem and overall health	– 82-item self-report questionnaire consisting of six specific domains of self-concept (physical, moral, personal, family, social, and academic). – Likert-scale based scores between 0 and 5 marking each statement in a range between completely false and completely true. – Higher TSCS score represents higher self-concept and self-esteem, hence better mental health functioning.	– Adults – Youth	– Variation of TSCS 2 used in Uganda, including 20 of the 82 items. – www.ncbi.nlm.nih.gov/pmc/articles/PMC2819297	

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Vietnamese Parental Behaviour Scale-Short form (PBS-S) and Psychological Control Scale (PCS)	PBS is a questionnaire that assesses parental behaviour and PCS is used to assess parental behaviours that 'involved manipulation of the love relationship between the parent and the child as a means of controlling child behaviour'	– PBS is adapted from the Ghent Parental Behaviour Scale (GPBS) of nine sub-scales. – PBS-S consists of 25 items from five subscales: positive parenting (eight items, e.g., 'I make time to listen to my child, when he/she wants to tell me something'), discipline (four items, e.g., 'When my child has been disobedient, I give him/her a chore as punishment'), rule setting (five items, e.g., 'I teach my child to be polite at school'), harsh punishment ('I spank my child when he/she is disobedient or naughty'), and material rewarding (three items, e.g., 'I give my child candy as a reward for good behaviour'). – PCS consists of items pertaining to parenting practices such as constraining verbal expressions, personal attacks, and love withdrawal. PCS consists of eight items (e.g., 'I change the subject, whenever my son/daughter has something to say'). – The PCS is based on child reports, but was adapted in Vietnam to be reported by the parents. – Both scales were measured based on a five-point Likert scale.	Parents of children aged 8–14	– Validity proven by use with 529 Vietnamese parents, 60% mothers of children aged 10–14. – Previous use of the GPBS and several adaptations seen in Europe, Americas, South America, India. – https://link.springer.com/article/10.1007/s10566-018-9469-7 – https://econtent.hogrefe.com/doi/abs/10.1027/1015-5759.20.4.283	

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Vineland Adaptive Behaviour Scale (VABS)	Help diagnose and evaluate the special needs of students	– Focus of this particular test is the measurement of the adaptive behaviours, including the ability to cope with environmental changes, to learn new everyday skills and to demonstrate independence. – Parent reported, not self-reported. – Consists of three subscales: communication, socialisation and daily living. – Provides an overall composite score, but also single subscale based scores which help with clinical diagnosis of motor skills.	– Children with intellectual disabilities – Pre-school age children – Children and adolescents aged 3–18	– Widely used in the US and other western contexts. – Successfully applied in suburban, peri-urban and rural areas in India and Indonesian children with disabilities. – Vietnamese VABS used in non-western contexts with good consistency and validity. – https://pubmed.ncbi.nlm.nih.gov/19059758 – www.sciencedirect.com/topics/medicine-and-dentistry/vineland-adaptive-behavior-scale	

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Warwick-Edinburgh Mental Well-being Scale (WEMWBS)	Measure of mental well-being focusing entirely on positive aspects of mental health as a tool to support both monitoring and evaluation of such programmes.	– Broad conception of well-being to include affective-emotional aspects, cognitive-evaluative dimensions and psychological functioning. – Short questionnaire of 14 items covering both functioning and feeling aspects of mental health and well-being, using positive language. – Examples of positive feelings include optimism, cheerfulness, relaxation, satisfying interpersonal relationships. – Examples of positive functioning are energy, clear thinking, self-acceptance, personal development, competence and autonomy. – Individuals are to tick the box best describing their experience of each statement over the past two weeks using a five-point Likert scale. – Each item gains a score from 1 to 5 respectively, giving a minimum score of 14 and maximum score of 70. A higher WEMWBS score therefore indicates a higher level of mental well-being. – Paper or computer based test. – A shorter version of this scale (SWEMWBS) is a seven-item scale which focuses more on functioning and feeling, providing a different dimension of well-being and mental health.	– Adults – Youth – General population	– WEMWBS showed good content validity in Scottish (general population) and UK (undergraduate and postgraduate students) based samples. – Studies in youth populations in Norway, Ireland, Scotland and the UK have also shown good concurrent, convergent validity. – Test–retest reliability has also been shown in a UK youth-based survey. – www.corc.uk.net/outcome-experience-measures/warwick-edinburgh-mental-wellbeing-scale – www.corc.uk.net/outcome-experience-measures/short-warwick-edinburgh-mental-wellbeing-scale – https://hqlo.biomedcentral.com/articles/10.1186/1477-7525-5-63 – https://warwick.ac.uk/fac/sci/med/research/platform/wemwbs/about	NHS Health Scotland commissioned the HEPS which was carried out by BMRB International and the Scottish Executive commissioned the Well? What do you think? survey which was carried out by Ipsos MORI and Stirling University.

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WHO5 Well-Being Index (WHO5)	A short self-rated unidimensional questionnaire on current mental well-being.	– Consists of five items rated on a six-point Likert scale (0 to 5) related to subjective well-being, vitality, and mood. – Scores are calculated by summing responses across each item and multiplied by 4 to result in a final scale of 0–100, with high scores reflective of a higher subjective quality of life. – Administration possible in a variety of different settings, and can be answered by children and young people themselves.	– All children aged 9 and above – Elderly populations	– Translated into 30 languages, first designed in 1998, the measure has been shown to have adequate validity as a tool for screening for depression and outcome measurement in clinical trials. – Studies in young people and elders has also shown that the index has good construct validity. – www.corc.uk.net/outcome-experience-measures/the-world-health-organisation-five-well-being-index-who-5 – www.psykiatri-regionh.dk/who-5/Pages/default.aspx – www.psykiatri-regionh.dk/who-5/Documents/WHO5_English.pdf	

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Youth Ecological Resilience Scale (YERS)	A multidimensional rating scale that sums up measurements on youth resilience within an ecological framework (also called ecometric techniques)	– Developed based on the person in environment Framework of Michael Ungar. – Located within an ecological framework of personal and environmental constructs, and interactions between the two. – YERS constructs were selected to fall into three concentric circles - social and environment (relational) factors, interactional factors and individual factors. – Individual factors are associated with positive learning experience, "bouncebackability," optimism, self-esteem, distress tolerance, spirituality. – Relational factors include relationships with family, friends, teachers, the community, role models, lovers. Environmental factors are community safety, family financial security, and social activities. – Transactional factors include interdependent problem-solving, self-efficacy, resourcefulness, team-work, empathy, conflict resolution. – YERS has 21 subscales which can be broken apart and used selectively. – All items formulated as statements to be scored on a five-point Likert-type scale.	Young people aged 14–21 years of age, particularly for those transitioning from/ into residential foster care or moving into independent living.	– Validated with a diverse sample of 575 young people. – All 21 scales showed minimum reliability for group research, but 12 scales should not be used in isolation to inform decisions about individuals. – https://journals.sagepub.com/doi/abs/10.1177/1049731516651731	Scale designed in 2012 in partnership between the author and Girls and Boys Town (GBT) as part of a larger research project on young people transitioning out of residential care toward independent living

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Youth Self-Report (YSR)	Similar to the CBCL, this measure is used to diagnose mental health problems among adolescents and youth	– Two aspects – internalising and externalising scales part of the broad band scales. – Self-report measure, with similar subscales as the CBCL. – Three-point Likert style questions reporting the truth of each statement (ranging from 'not true at all' to 'often true/very true') in combination with open-ended questions. – 112 items in total, with administration done in a paper-based format; approximately 15 minutes to complete.	Adolescents aged 11–18	– Global use, including Viet Nam. – Validity demonstrated in a sample of more than 1,000 ethnically diverse adolescents in the US. – www.nctsn.org/measures/youth-self-report-11-18#:~:text=The%20Youth%20Self%2DReport%20(YSR,scales%E2%80%9D%3A%20Internalizing%20and%20Externalizing.&text=It%20is%20a%20parallel%20form,Teacher%20Report%20Form%20(TRF) – www.tandfonline.com/doi/abs/10.1080/15374416.2011.546041	

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