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International Journal of Integrative and Complementary Medicine Research Article

Systematic Literature Review 7DHW (7 Dimensions of Holistic Wellbeing)

Inês Santos Silva[1*], Petra Santos[3], Tatiana Leal[3], Frank Schifferdecker-Hoch[1,2], Luísa Soares[1,3]
[1]2256c.health Unipessoal LDA, Lisboa, Portugal.
[2]FPZ GmbH, Cologne, Germany.
[3]Universidade da Madeira, Funchal, Madeira, Portugal.

Article Information

Received: November 15, 2025
Accepted: November 25, 2025
Published: December 01, 2025

***Corresponding author:** Inês Santos Silva, 2256c.health Unipessoal LDA, Lisboa, Portugal.

Citation: Inês S Silva, Santos P, Leal T, Frank Schifferdecker-Hoch, Soares L, (2025) "Systematic Literature Review 7DHW (7 Dimensions of Holistic Wellbeing)." International Journal of Integrative and Complementary Medicine, 1(2). DOI: 10.61148/ 10.61148/IJICM/ 007.

Abstract:

Introduction: Wellbeing assessment has gained increasing relevance across various domains, including healthcare, workplace settings, ageing populations, and health literacy. This study aims to systematically review and synthesize findings from validation studies on wellbeing measurement tools, categorizing them into key areas to enhance the understanding and application of wellbeing assessments.

Methods: A systematic literature review was conducted following *PRISMA* guidelines. The review focused on psychometric validation studies, cross-cultural adaptations, and domain-specific wellbeing instruments. Wellbeing assessments were categorized into seven key areas: general dimensions of wellbeing, innovations in conceptualization, workplace wellbeing, healthcare settings, child and adolescent wellbeing, ageing populations, and health literacy.

Results: The review highlights the critical role of validated wellbeing measures in improving research precision, policy-making, and intervention strategies across disciplines. Studies on workplace wellbeing emphasize the importance of psychological support in organizational settings. In contrast, research in healthcare settings underscores the need for patient-centred approaches integrating emotional, physical, and social wellbeing. Additionally, assessments tailored for ageing populations and health literacy demonstrate the necessity of culturally sensitive, population-specific instruments. The study further reveals the importance of interdisciplinary collaboration in refining wellbeing measures, incorporating psychological, social, and digital dimensions.

Conclusion: The review highlights the critical role of validated wellbeing measures in improving research precision, policy-making, and intervention strategies across disciplines. Studies on workplace wellbeing emphasize the importance of psychological support in organizational settings. In contrast, research in healthcare settings underscores the need for patient-centred approaches integrating emotional, physical, and social wellbeing. Additionally, assessments tailored for ageing populations and health literacy demonstrate the necessity of culturally sensitive, population-specific instruments. The study further reveals the importance of interdisciplinary collaboration in refining wellbeing measures, incorporating psychological, social, and digital dimensions.

Keywords: Wellbeing Assessment, Psychometric Validation, Health Literacy, Systematic Literature Review, Quality of Life Measurement, Cross-Cultural Adaptation

Introduction

The wellbeing assessment has become an essential area of research across multiple disciplines, including psychology, healthcare, occupational studies, and public policy. The increasing focus on wellbeing stems from its impact on quality of life, mental and physical health, and social integration. Wellbeing is a multidimensional construct encompassing psychological, emotional, social, and physical aspects, each playing a crucial role in an individual's overall life satisfaction and functional capabilities [1, 2].

Over the past two decades, significant advancements have been made in measuring wellbeing, leading to the development and validation of numerous assessment instruments [3]. These instruments have been utilized in various contexts, including workplace settings, healthcare environments, child and adolescent populations, ageing individuals, and health literacy research. A key challenge in wellbeing assessment is ensuring that these instruments are both psychometrically sound and adaptable across different cultural and demographic groups [4].

While this review emphasizes tools validated in healthcare and workplace contexts, it also draws on insights from instruments developed for other populations. Tools such as the Multidimensional Child Wellbeing Scale (MCWBS) [5] and the Winchester Adolescent Wellbeing Scale (WAWS) [6] inform age-sensitive constructs. Similarly, instruments like the Wellbeing of Older People (WOOP) [7], the Spiritual Wellbeing Scale (SWBS) [8], the WHOQOL-OLD [9, 10], and the Social Production Function Instrument for the Level of Wellbeing – Short (SPF-ILS) [11-13] contribute insights on life satisfaction, spirituality, and social functioning in ageing. Additionally, health literacy tools such as the Mental Health Literacy Scale (MHLS) and the Health Literacy for School-Aged Children (HLSAC) [14] illustrate how understanding and interpreting health-related information plays a foundational role in self-perceived wellbeing. These references help illustrate the breadth of wellbeing conceptualization and support comparisons across domains.

Systematic literature reviews play a crucial role in consolidating knowledge on wellbeing assessment tools by identifying validated instruments, analyzing their application across different populations, and evaluating their effectiveness in diverse settings. The *PRISMA* methodology [2] provides a structured approach to synthesizing findings from multiple studies, facilitating the identification of the most reliable and widely accepted wellbeing measures.

This study aims to systematically review validated wellbeing assessment tools and their applicability in different life domains. Specifically, we investigate (1) the most frequently assessed dimensions of wellbeing, (2) the effectiveness of community-based interventions in promoting wellbeing across age groups, and (3) the psychometric properties of wellbeing instruments used in international research [15]. By consolidating existing research, this review seeks to contribute to developing robust, standardized, and contextually relevant wellbeing assessment tools that can inform public policies, intervention strategies, and further research in the field of wellbeing assessment [16].

Methods

The *PRISMA* guidelines guided the systematic literature review (Preferred Method Reporting Items for Systematic Reviews and Meta-Analyses [2].

The main objectives were to learn about the various validated wellbeing assessment instruments and the populations and contexts in which they are used. The PROSPERO ID number of this Systematic Literature Review is 1003711.

The systematic review was conducted based on the following research questions:

- What are the determining factors most frequently associated with wellbeing in populations throughout the life cycle, according to the literature of the last twenty years?
- Identifying and synthesizing evidence on key determinants of wellbeing can support the formulation of public policies and targeted interventions.
- What international community-based interventions have demonstrated proven effectiveness in promoting mental and emotional wellbeing across different age groups?
- A systematic review can help compare the effectiveness of different interventions and guide the choice of evidence-based practices.
- How has wellbeing been measured and evaluated in international studies, and which instruments have shown greater validity and reliability?
- Standardizing wellbeing measures is essential for comparing studies and cultural contexts.

Research Strategies

The search was carried out based on the main keywords related to the topic, using Boolean operators OR and AND. The terms "validation study", "psychological assessment tool", "instrument validation", "wellbeing", "holistic wellbeing", "health", "holistic principles", "self-esteem", "positive perception", "friendship", "social relationship", "environment", "meaningful work", "health knowledge", "hope", "physical wellbeing" and "psychological wellbeing" were included, formulating the following search key: "("validation study" OR "psychological assessment tool" OR "validation of instruments") AND ("wellbeing" OR "holistic wellbeing") AND ("health" OR "holistic principles") AND ("self-esteem" OR "positive perception" OR "friendship" OR "social relationship" OR "environment" OR "meaningful work" OR "health knowledge" OR "hope") AND ("physical wellbeing" OR "psychological wellbeing").

The search key was applied to six databases: Google Scholar, Science Direct, Taylor \& Francis, Springer Link, B-On and PubMed.

Selection Criteria

Specific filters were applied to the databases to restrict the results and meet the established inclusion and exclusion criteria: (i) time period: 2004-2024; (ii) English and Portuguese language; (iii) scientific and research articles; (iv) open access documents.

Study Selection

The studies for the systematic literature review were selected

between May and June 2024. The PRISMA 2020 flowchart (Figure 1) illustrates the review and decision process.

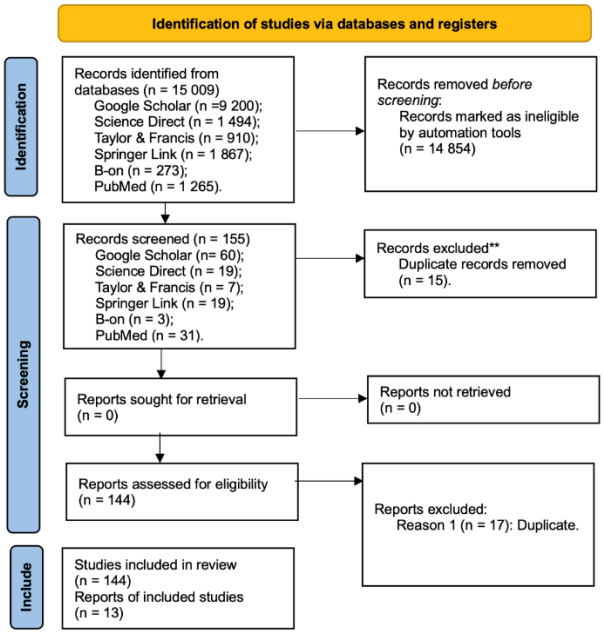

Fig. 1 - PRISMA 2020 Fluxogram.

Results

The results of the different phases of the systematic literature review are represented in the PRISMA flowchart (Figure 1). A total of 15,009 studies were identified through systematic database searches. After excluding 14,854 illegible studies, 155 remained for the initial screening phase of evaluating titles and/or abstracts. During this primary selection stage, 15 studies were duplicated and excluded. There remained 144 studies for a more detailed evaluation that met the inclusion criteria and were submitted for analysis in this systematic literature review.

The results were organized into seven categories, as represented in the following tables:

- General Dimensions in the Concept of Wellbeing;
- Innovations in the Concept of Wellbeing;
- Assessment of Wellbeing in the Workplace;
- Assessment of Wellbeing in Health Contexts;
- Assessment of Child Wellbeing;
- Assessment of Wellbeing in the Elderly Population;
- Health Literacy.

General Dimensions in the Concept of Wellbeing

Understanding wellbeing as a multidimensional construct requires a strong theoretical foundation and validated measurement tools that capture its various dimensions. This section explores the general dimensions of the concept of wellbeing, highlighting how standardized frameworks and psychometric assessments contribute to a more precise evaluation of wellbeing across diverse populations. The studies in this category focus on defining universal aspects of wellbeing, validating cross-cultural adaptations of assessment tools, and synthesizing existing literature to improve standardization. By establishing reliable and adaptable measurement instruments, this research provides a basis for more specialized wellbeing assessments across different contexts.

Category I - General Dimensions in the Concept of Wellbeing

Category I, General Dimensions in the Concept of Wellbeing, covers broad and foundational aspects of wellbeing assessment, focusing on generalized models, psychometric validation, and cross-cultural adaptations of wellbeing scales (Table 1). These studies aim to establish robust and universally applicable frameworks to measure wellbeing across different populations and contexts. The research in this category provides a solid theoretical and methodological foundation for more specialized wellbeing assessments.

The studies in this category focus on:

- **Developing and validating generalized wellbeing scales** that can be applied across diverse populations.
- **Investigating cross-cultural** applicability by adapting and validating wellbeing measures for different languages, ethnic groups, and national settings.
- **Exploring multidimensional aspects of wellbeing**, including physical, mental, and social components.
- **Synthesizing existing wellbeing measures** through reviews and meta-analyses to improve standardization.

Table 1 - Category I – General Dimensions in the Concept of Wellbeing.

Category I - General Dimensions in the Concept of Wellbeing
Article 3: Development and Psychometric Validation of the Mental, Physical, and Spiritual Well-Being Scale [17]
Article 11: Validation of the Bangla WHO-5 Well Being Index [18]
Article 16: The positive mental health instrument: Development and validation of a culturally relevant scale in a multi-ethnic asian population [19]
Article 21: The Well-Being 5: Development and Validation of a Diagnostic Instrument to Improve Population Well-being [20]
Article 45: Measuring Well-Being: A Review of Instruments [21]
Article 47: Warwick-Edinburgh Mental Well-being Scale (WEMWBS) acceptability and validation in English and Scottish secondary school students (The WAVES Project) [22]
Article 50: Transcultural adaptation and validation in French of the BBC subjetive well-being scale (BBC-SWB) in the general population [23]
Article 56: Dimensions of the Well-being and their measurement: The SPF-IL Scale [24]
Article 63: Social Well-Being Scales: Validity and Reliability Evidence in the Portuguese Context [25]
Article 64: Adaptação e validação do Questionário Geral de Bem-Estar Psicológico: Análise fatorial confirmatória da versão reduzida (QGBEP-R) [26]
Article 67: Measures of self-perceived well-being (EWB) [27]
Article 77: Further validation of the questionnaire for eudaimonic well-being (QEWB) [28]
Article 81: Japanese version of the 42-item psychological well-being scale (PWBS-42): A validation study [29]
Article 85: Development and Content Validation of the 10-item Well-being Instrument (WiX) for use in Economic Evaluation Studies [30]
Article 86: Azerbaijani adaptation of the WHO-5 wellbeing index: Investigating its relationship with psychological distress, resilience, and life satisfaction [31]
Article 92: Validation of the SF12 mental and physical health measure for the population from a low-income country in sub-Saharan Africa [32]
Article 96: The WHO-5 well-being index: Validation based on item response theory and the analysis of measurement invariance across 35 countries [33]
Article 101: Validity and Psychometric Evaluation of the Chinese Version of the 5-Item WHO Well-Being Index [34]
Article 117: Report of the secretary-general on the work of the organization [35]
Article 125: Tradução, adaptação e contributo para a validação da escala Warwick-Edinburgh Mental Well-Being Scale para a população portuguesa [36]

Methodologies used in these studies were psychometric validation, like exploratory and confirmatory factor analysis, to ensure the reliability and validity of wellbeing scales. Cross-Cultural Adaptation where several papers focus on translating and validating existing scales for new populations, such as the Bangla WHO-5 Wellbeing Index [18] and the French version of the BBC Subjective Wellbeing Scale [23] and Comparative Studies like other research reviews with multiple wellbeing instruments to identify the most effective models for assessment.

The main findings were that the Wellbeing 5 (WB-5) [20] scale has been validated as a diagnostic instrument for assessing population wellbeing. The Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) [22] has been tested for acceptability in English and Scottish school settings, demonstrating its reliability in educational contexts. The Bangla WHO-5 Wellbeing Index [18] showed strong cultural relevance and reliability for assessing wellbeing in a multi-ethnic population, and the Japanese version of the Psychological Wellbeing Scale (PWBS-42) [29] confirmed the validity of wellbeing constructs in an East Asian cultural context.

General wellbeing scales provide a foundational framework for understanding wellbeing across psychology, healthcare, and policy-making. Their cross-cultural validation ensures global relevance, allowing researchers and practitioners to apply standardized tools across diverse populations. These scales support a holistic approach to wellbeing research and intervention strategies by incorporating physical, mental, and social dimensions.

The general dimensions of wellbeing represent a crucial foundation for theoretical and applied research in psychology, healthcare, and social sciences. Traditional wellbeing assessments often focus on isolated aspects such as mental health or life satisfaction. However, contemporary research recognizes the need for multidimensional models that integrate physical, emotional, social, and spiritual wellbeing. The studies in this category emphasize the importance of developing comprehensive and universally applicable measures which can be used across different cultural and demographic groups. These instruments, such as the WHO-5 Wellbeing Index and the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) [22], provide validated frameworks that facilitate cross-cultural comparisons, policy-making, and clinical applications. By focusing on broad and adaptable constructs, these studies ensure that wellbeing assessments are not limited to specific populations but can be effectively used in global health and psychological research.

Using validated general wellbeing measures allows us to evaluate interventions holistically, ensuring that improvements in one area (e.g., physical function) do not come at the expense of others (e.g., mental health or social engagement). Additionally, in our systematic literature review, understanding these foundational wellbeing scales helps us identify the most reliable and widely accepted models, ensuring that our research is built upon strong scientific evidence.

Another critical aspect highlighted by these studies is the cross-cultural applicability of wellbeing measures. Wellbeing is inherently influenced by cultural norms, societal expectations, and local resources, making it essential to adapt and validate existing

scales for different populations. The Bangla WHO-5 Wellbeing Index [18] and the Japanese Psychological Wellbeing Scale (PWBS-42) [29] are excellent examples of how researchers ensure that wellbeing instruments remain relevant across diverse social and linguistic contexts. This fact is particularly important when we engage with international collaborations and seek to develop solutions that can be applied beyond a single cultural or national setting. By incorporating culturally validated wellbeing measures, we can avoid biases and create more inclusive and effective interventions.

Finally, these broad wellbeing dimensions provide valuable insights for policy-making and large-scale public health initiatives. Governments and organizations use wellbeing assessments to design policies promoting mental health, workplace wellbeing, and community resilience [37]. The validation of wellbeing measures across different age groups, socioeconomic backgrounds, and clinical conditions ensures that policy interventions are evidence-based and tailored to actual population needs. In our research and technology-driven initiatives, leveraging these validated instruments will allow us to bridge the gap between scientific knowledge and real-world applications, ensuring that our work contributes meaningfully to individual and societal wellbeing.

Category II - Innovations in the Concept of Wellbeing

Category II, Innovations in the Concept of Wellbeing, encompasses research focused on expanding and redefining the concept of wellbeing (Table 2). Rather than adhering strictly to traditional psychological or medical frameworks, these studies introduce new theoretical perspectives, measurement tools, and interdisciplinary approaches to wellbeing assessment. The innovations explored in this category range from holistic wellness frameworks to specific psychometric tools that evaluate self-concept, body image, mental health, and hope. The studies included in this category aim to:

- **Develop and refine conceptual models of wellbeing** that go beyond traditional psychological measures.
- **Create and validate new instruments for measuring wellbeing** across different life domains (e.g., self-esteem, body image, eudaimonic wellbeing, and biodiversity response).
- **Investigate the role of subjective and social dimensions** in shaping wellbeing perceptions.

The methodologies used were Psychometric Scale Validation, many studies employ exploratory and confirmatory factor analysis to assess the reliability and validity of newly developed wellbeing scales; Mixed-Methods Research, some papers integrate qualitative and quantitative approaches to capture the complexity of wellbeing; Cross-Cultural Studies, several studies validate wellbeing instruments in different cultural and national contexts, ensuring their applicability across diverse populations. Furthermore, technology and digital influence were found through research on wellbeing in the digital world [40], which explores how online interactions and technological engagement affect mental health.

The Holistic Wellness Assessment (HWA) [38] provides a comprehensive approach to measuring wellbeing across multiple life dimensions. Studies on self-esteem [39, 57] and subjective wellbeing [58] highlight the interplay between personal, relational, and collective self-esteem in shaping individuals' life satisfaction. The Mental Health in the Digital World [40] study underscores the double-edged nature of technology, where digital interactions can enhance and diminish wellbeing. The Body Image Scale for Youth (BISY) [41] has been validated as a reliable tool for assessing body image concerns in adolescents, and the Wellbeing Profile (WB-Pro) [42] has proven effective as a multidimensional measure of wellbeing, with strong psychometric properties.

Table 2 - Category II – Innovations in the Concept of Wellbeing

Article 1: Holistic Wellness Assessment for Young Adults [38]
Article 9: Self-esteem and subjective well-being revisited: The roles of personal, relational, and colletive self-esteem [39]
Article 14: Mental Health in the Digital World [40]
Article 23: Development and validation of the body image scale for youth (BISY) [41]
Article 25: Towards a multidimensional measure of well-being: cross-cultural support through the Italian validation of the well-being profile [42]
Article 28: New Psychometrical Data on the Efficiency of Satisfaction with Life Scale in Romania [43]
Article 29: Validation study on the Romanian population of the multidimensional scale of perceived social support (m.s.p.s.s.) [44]
Article 36: The construction of a new Clinical Quality of Life Scale (CLINQOL) [45]
Article 41: Positive Body Image and Psychological Wellbeing among Women and Men: The Mediating Role of Body Image Coping Strategies [46]
Article 46: Validation of the Adolescent Self-Esteem Questionnaire [47]
Article 54: Psychological Balance Scale: Validation Studies of an Integrative Measure of Well-Being [48]
Article 57: Intercultural Validation of the Mindful Self-Care Scale—Rasch and Factor Analysis of 16 Studies Representing Five Continents (MSCS) [49]
Article 66: Structure of the Personal Self-Concept Questionnaire (PSC) [50]
Article 68: Development of the What Matters 2 Adults (WM2A) wellbeing measure for Aboriginal and Torres Strait Islander adults [51]
Article 72: The Multidimensional Wellbeing in Youth Scale (MWYS): Development and Psychometric Properties [52]
Article 73: BIO-WELL: The development and validation of a human wellbeing scale that measures responses to biodiversity [53]
Article 80: Construct validity of the Herth Hope Index: A systematic review [54]

Article 87: Validation and Utilization of the Spiritual Well-Being Questionnaire: SHALOM [55]
Article 89: The value of hope: Validation of the perceived hope scale in the Portuguese population [56]
Article 98: The Questionnaire for Eudaimonic Well-Being: Psychometric properties, demographic comparisons, and evidence of validity [57]
Article 106: Neighbourhood flOURISHing (NOURISH): A new short and inclusive interpersonal measure of subjective wellbeing [58]

The studies from this category highlight the introduction of new wellbeing measures and expand how wellbeing is understood and assessed, allowing for more targeted interventions. They also show interdisciplinary approaches, including psychology, sociology, and digital studies, that help capture wellbeing's complex and evolving nature. These new models and tools are particularly relevant in healthcare, educational settings, and digital interventions, where a nuanced understanding of wellbeing is crucial.

The continuous evolution of wellbeing concepts reflects a growing awareness that traditional psychological and medical models may not fully capture the complexities of human flourishing [58]. The studies within this category introduce novel frameworks and measurement tools that aim to bridge the gap between theory and practice, enabling a more comprehensive and context-sensitive wellbeing assessment. The emergence of holistic wellness assessments [38], multidimensional wellbeing scales, and culturally adaptive tools underscores the need to consider both individual mental health and social, environmental, and existential dimensions. These innovations are particularly relevant in contemporary society, where factors such as digital interactions, body image concerns, and identity formation play an increasing role in shaping wellbeing. By developing new psychometric instruments, researchers provide valuable resources for both clinical and applied settings, ensuring that wellbeing assessments remain dynamic and reflective of modern challenges.

In the context of our research, these innovations align with our commitment to understanding wellbeing beyond clinical or diagnostic measures, integrating social, emotional, and digital factors. For instance, the rise of digital wellbeing tools resonates strongly with our work in technology-driven interventions. Digital environments profoundly shape individuals' perceptions of wellbeing, and the increasing reliance on online platforms for social interaction, mental health support, and identity expression necessitates a deeper understanding of how technology mediates psychological wellbeing. By incorporating insights from studies such as "Mental Health in the Digital World," [40] we can better design interventions that support wellbeing in virtual spaces rather than merely mitigating negative effects.

Moreover, tools like the Psychological Balance Scale [48] or the Spiritual Wellbeing Questionnaire [55] open avenues for more integrated wellbeing assessments, ensuring that we consider aspects of resilience, meaning, and self-perception alongside traditional health indicators.

Additionally, these conceptual advancements in wellbeing provide practical benefits for diverse populations, including stroke survivors, caregivers, and individuals engaged in therapeutic programs. The development of new wellbeing scales allows for more personalized assessments, which can be adapted to specific needs, cultural backgrounds, and life circumstances. For example, the What Matters 2 Adults (WM2A) [51] scale specifically addresses wellbeing in Aboriginal and Torres Strait Islander communities [51], highlighting the necessity of culturally inclusive wellbeing measures. Similarly, the BIO-WELL scale [53], which evaluates wellbeing concerning biodiversity and environmental interactions, reflects a growing recognition that human wellbeing is deeply connected to ecological health. As we advance in our research and technology applications, integrating these innovative models will enhance the effectiveness of interventions and ensure that wellbeing is approached holistically, equitably, and with a future-oriented perspective.

Category III - Assessment of Wellbeing in the Workplace

The **Category III** focuses on assessing wellbeing in occupational settings, addressing how different work environments, job roles, and workplace dynamics influence psychological and emotional wellbeing (Table 3). The studies included here emphasize developing and validating instruments that measure occupational wellbeing, workplace satisfaction, and work-related mental health risks. They aim to:

- **Develop and validate instruments that assess workplace** wellbeing and mental health.
- **Measure the impact of work** conditions (e.g., organizational culture, job stressors, and social support) on employee wellbeing.
- **Examine psychological risk factors in the workplace**, such as burnout, occupational stress, and job satisfaction.
- **Explore the role of workplace interventions** in promoting employee wellbeing.

The methodologies used include psychometric scale validation, factor analysis, and reliability tests to ensure workplace wellbeing measures are accurate and replicable; survey-based research with large samples across different job roles and industries; cross-cultural validation (e.g., the Italian version of the NIOSH Worker Wellbeing Questionnaire [60], and the Tanzanian version of WEMWBS [76]); and longitudinal studies that evaluate wellbeing trends over time. Importantly, this category also includes instruments specifically validated for healthcare professionals. Article 10 [61] validates the WHO-5 Index among medical educators in Hong Kong; Article 22 [63] focuses on nurses in shift work, proposing an environment-specific scale; and Article 93 [74] develops a shortened version of the Professional Quality of Life Scale (ProQOL), a widely used tool in nursing, palliative care, and allied-health contexts. These studies address the psychological burden of emotionally intensive professions, such as those in hospital, clinic, and long-term care settings.

In summary, the main findings of this third category are that the Perceived Wellness Survey (PWS) [66] proved effective in evaluating employees' overall wellbeing in organizational contexts; the NIOSH Worker Wellbeing Questionnaire [60] was successfully validated in Italian, showing cross-cultural applicability; the Work Environment Assessment Instrument (WE-10) [3] demonstrated strong construct validity and reliability; research on eudaimonic wellbeing at work found that psychological growth and fulfilment contribute significantly to workplace satisfaction, particularly among Japanese occupational

mental health professionals [73]; and the Copenhagen Psychosocial Questionnaire II (COPSOQ II) [75], validated in Portugal, reinforced its usefulness in evaluating work-related psychosocial risks. Together, these findings underscore the growing recognition that wellbeing in the workplace is not merely a driver of productivity but a measurable and actionable construct critical for sustainable occupational health.

Table 3 - Category III – Assessment of Wellbeing in the Workplace.

Category III – Assessment of Wellbeing in the Workplace.

Article 2: Validation of Perceived Wellness Survey (PWS) in a Sample of Iranian Population [59]
Article 7: Validation of the NIOSH Worker Well-Being Questionnaire in Italian Language [60]
Article 10: Validation of the World Health Organization Well-Being Index (WHO-5) among medical educators in Hong Kong: A confirmatory factor analysis [61]
Article 17: Measuring Occupational Well-Being Indicators: Scale Construction and Validation [62]
Article 22: Development and validation of a quality of healthy work environment instrument for shift nurses [63]
Article 37: Conceptualizing and measuring occupational social well-being: A validation study [64]
Article 38: Social Well-Being at School: Development and Validation of a Scale for Primary Education Students [65]
Article 39: The validation of the perceived wellness survey in the South African police service [66]
Article 42: Assessing Teachers' Positive Psychological Functioning at Work: Development and Validation of the Teacher Subjective Wellbeing Questionnaire [67]
Article 48: Cognitive adjustment as an indicator of psychological health at work: Development and validation of a measure [68]
Article 49: Dimensions of students' psychological well-being and their measurement: Validation of a student's Psychosocial Well Being Inventory [69]
Article 52: Structural Validation of the Holistic Wellness Assessment [70]
Article 61: The Measurement of Employee Well-being: Development and Validation of a Scale [71]
Article 62: Construct Validity and Reliability of the Work Environment Assessment Instrument WE-10 [3]
Article 75: The Multidimensional Student Well-being (MSW) instrument: Conceptualization, measurement, and differences between Indigenous and non-Indigenous primary and secondary students [72]
Article 79: Measuring eudemonic well-being at work: A validation study for the 24-item the University of Tokyo Occupational Mental Health (TOMHI) well-being scale among Japanese workers [73]
Article 93: Development and validation of the Short Professional Quality of Life Scale based on versions IV and V of the Professional Quality of Life Scale [74]
Article 95: The Portuguese long version of the Copenhagen Psychosocial Questionnaire II (COPSOQ II) – A validation study [75]
Article 103: Swahili translation and validation of the Warwick Edinburgh Mental Wellbeing Scale (WEMWBS) in adolescents and adults taking part in the girls' education challenge fund project in Tanzania [76]
Article 111: Development and Validation of a Life Satisfaction Instrument in Human Resource Practitioners of Thailand [77]
Article 128: Measuring work-related psychosocial and physical risk factor using workplace observations: A validation study of the "Healthy Workplace Screening" [78]

The growing emphasis on workplace wellbeing research reflects a shift in occupational health policies toward a more holistic approach that considers psychological, social, environmental, and physical health dimensions. Organizations can leverage validated workplace wellbeing instruments to design mental health interventions, leadership training programs, and employee support initiatives. Understanding the different factors that contribute to occupational wellbeing is critical in fields such as human resource management, workplace psychology, and occupational health.

Workplace wellbeing is a fundamental aspect of modern occupational health, as it directly influences employee productivity, job satisfaction, and overall mental health. Traditionally, organizations measured workplace success through performance metrics, engagement levels, and turnover rates, often neglecting the deeper psychological and emotional factors that contribute to long-term employee wellbeing. The studies in this category demonstrate that workplace wellbeing is a by-product of good management and a measurable construct that can be systematically assessed and improved. The validation of instruments such as the Perceived Wellness Survey (PWS) [66] and the Work Environment Assessment Instrument (WE-10) [3] underscores the importance of using scientifically grounded tools to evaluate workplace conditions. These instruments provide organizations with actionable insights, helping them design interventions that enhance employee support systems, reduce workplace stress, and foster a more positive work environment.

In our research and technology-driven context, workplace wellbeing is crucial in shaping organizational policies, rehabilitation programs, and digital interventions designed to support employees in various professional settings. For instance, our work on wellbeing assessment in rehabilitation and therapy settings can benefit from these validated workplace wellbeing scales by ensuring that recovery-oriented work environments promote not only physical health but also mental and emotional resilience. This is especially relevant for employees in high-stress environments such as healthcare, education, and law enforcement, where the emotional toll of the job can significantly impact long-term wellbeing. Organizations can develop customized wellbeing programs by incorporating wellbeing measures into workplace policies and digital applications, including stress management tools, personalized coaching, and early intervention mechanisms.

Moreover, the cross-cultural validation of workplace wellbeing

scales is essential for ensuring global applicability in an increasingly interconnected workforce. With remote work, multinational teams, and hybrid job structures becoming the norm, organizations must understand the diverse cultural and psychological factors that shape workplace experiences. The validation of the NIOSH Worker Wellbeing Questionnaire in Italian [60] and the Tanzanian adaptation of WEMWBS [76] illustrates the importance of adapting wellbeing measures to different work cultures and economic environments. As we further develop our research, integrating these validated workplace wellbeing scales will enhance our ability to assess organizational health and contribute to designing more inclusive, adaptable, and scalable solutions for wellbeing in diverse professional settings. Where available, effect sizes and minimal clinically important differences (MCIDs) were extracted to enhance clinical interpretability. For instance, the WHO-5 Wellbeing Index, used among medical educators [61], has an established MCID of 10 points, aiding in identifying meaningful change over time. Similarly, validation studies of the WEMWBS have reported moderate to large effect sizes (Cohen's d = 0.5–0.8) in intervention studies, supporting its sensitivity to psychological wellbeing changes [79].

Category IV - Assessment of Wellbeing in Health Contexts

Category IV focuses on the assessment of wellbeing in healthcare settings, addressing how different health conditions, medical treatments, and caregiving responsibilities influence patients' and caregivers' wellbeing (see Table 4). The research within this category contributes to developing and validating measurement tools that assess mental health, holistic wellbeing, and quality of life in clinical populations. The studies in this category aim to:

- **Develop and validate wellbeing instruments tailored for patients**, caregivers, and healthcare professionals.
- **Assess the impact of chronic illnesses**, mental health conditions, and medical interventions on wellbeing.
- **Evaluate holistic and multidimensional aspects of wellbeing**, integrating physical, emotional, and social dimensions.
- **Explore the role of cultural adaptations in healthcare wellbeing** assessments, ensuring tools are relevant across differ

Table 4 - Category IV – Assessment of Wellbeing in Health Contexts

Category IV – Assessment of Wellbeing in Health Contexts
Article 4: Validation of the Holistic Comfort Questionnaire-caregiver in Portuguese-Brazil in a cohort of informal caregivers of palliative care cancer patients [80]
Article 5: Validation of Chinese and English versions of the Holistic Well-being Scale in patients with cancer [81]
Article 6: The ethos brief index - validation of a brief questionnaire to evaluate wellness based on a holistic perspective in patients with restless legs syndrome [82]
Article 8: The Validity of the EuroQol Health and Wellbeing Short Version (EQ-HWB-S) Instrument in Parents of Children with and Without Health Conditions [4]
Article 13: Overconsumption and the Effects on Mental Health and Well-Being: A Review [83]
Article 18: Development and Validation of an Instrument to Assess Perceived Social Influence on Health Behaviors [84]
Article 19: Development of a balanced instrument to measure global health-related quality of life: The 13-MD [85]
Article 24: Content validation of a mental wellness measuring instrument for adolescents living with HIV: A modified delphi study [86]
Article 30: Psychological well-being of gynecologic and obstetric patients: A validation of the 12-item Well- Being Questionnaire (W-BQ12) [87]
Article 33: Development and validation of PozQoL: a scale to assess quality of life of PLHIV [88]
Article 34: Validation of the Italian version of the Laval [89]
Article 35: Measurement of Quality of Life in Menopausal Women: A Systematic Review [90]
Article 40: Validation of Bengali version of EORTC QLQ-SWB32: A standalone measure of spiritual wellbeing for advanced cancer patients receiving palliative care [91]
Article 51: The Self-Perception and Relationships Tool (S-PRT): A novel approach to the measurement of subjective health-related quality of life [92]
Article 55: Measuring mental wellbeing in clinical and non-clinical adolescents using the COMPAS-W Wellbeing Scale [93]
Article 58: Validation of Warwick Edinburg Mental WellBeing Scale among Married Couples (WEMWBS) [94]
Article 65: Development and testing of an instrument to measure holistic attributes of nurse practitioner care (NPHCI) [95]
Article 70: The Short Warwick-Edinburgh Mental Well-being Scale (SWEMWBS) - A psychometric evaluation of adolescents in Sweden during the COVID-19 pandemic [79]
Article 76: The Portuguese version of the personal health scale: a validation study in southern Brazil [96]
Article 78: Hope Matters: Developing and Validating a Measure of Future Expectations Among Young Women in a High HIV Prevalence Setting in Rural South Africa (HPTN 068) [97]
Article 88: Assessing meaning & purpose in life: Development and validation of an item bank and short forms for the NIH PROMIS [98]
Article 91: Validation of a COVID-19 mental health and wellness survey questionnaire [99]
Article 94: World Health Organization 5-item well-being index: Validation of the Brazilian Portuguese version [100]
Article 97: Assessing positive mental health in people with chronic physical health problems: Correlations with socio-demographic variables and physical health status [101]
Article 102: Measurement of health-related quality of life for people with dementia: Development of a new instrument (DEMQOL) and an

evaluation of current methodology [102]
Article 104: First validation study of the living with long term conditions scale (LwLTCs) among English-speaking population living with Parkinson's disease [103]
Article 105: Validity and reliability study of the Turkish Version of the Holistic Well-being Scale in individuals with cancer [104]
Article 108: Developing a New Generic Health and Wellbeing Psychometric Survey Results for the EQ-HWB [105]
Article 109: The EQ-HWB: Overview of the Development of a Measure of Health and Wellbeing and Key Results [16]
Article 110: Development and Validation of a PROM to capture holistic outcomes in traditional, complementary and integrative medicine - The Warwick Holistic Health Questionnaire (WHHQ-18) [106]
Article 114: Development and Validation of an Instrument for the Measurement of Health-Related Quality of Life Based on View of Traditional Chinese Medicine Perspective [107]
Article 116: Comprehensive well-being scale: Development and validation among Chinese in recovery of mental illness in Hong Kong [108]
Article 118: Câncer renal: Uma revisão da literatura [109]
Article 119: Positive factors associated with quality of life among chinese patients with renal carcinoma: A cross-sectional study [110]
Article 120: Renal Cancer [111]
Article 121: A importância da atuação do psicólogo junto a pacientes com câncer: Uma abordagem psico-oncológica [112]
Article 122: Aplicações da Terapia Cognitivo-Comportamental em pacientes oncológicos: Uma revisão integrativa [113]
Article 123: Analysis of psychosocial stress factors in patients with renal cancer [114]
Article 124: Contribuição para o estudo da adaptação portuguesa das escalas de ansiedade, depressão e stress (EADS) de 21 itens de Lovibond e Lovibond [115]
Article 126: Holistic Health Status Questionnaire: Developing a measure from Hong Kong Chinese population [116]

The methodologies used in the studies of this fourth category were: Psychometric Validation, factor analysis, reliability tests, and item response theory to refine wellbeing assessment tools; Clinical and Patient-Reported Outcomes with instruments such as the EuroQol Health and Wellbeing Short Version (EQ-HWB-S) [4] and the Holistic Comfort Questionnaire [80] which assess wellbeing in specific healthcare settings; Systematic Reviews analyze multiple wellbeing instruments to identify best practices in clinical wellbeing measurement and Cross-Cultural Adaptations with research articles that validate existing instruments in new populations, such as the Bengali version of the EORTC QLQ-SWB32 [91] and the Turkish version of the Holistic Wellbeing Scale [104].

The main findings can be summarized in that the Holistic Comfort Questionnaire [80] effectively measures caregiver wellbeing in palliative care settings, demonstrating strong psychometric properties. Among the validated instruments, those developed in clinical settings, such as the WE-10 [3], PWS-HC [59], and ProQOL [74], demonstrate targeted relevance for frontline healthcare staff. The Ethos Brief Index [82] provides a holistic perspective on wellness in patients with restless legs syndrome, helping to assess broader quality-of-life impacts. The EuroQol EQ-HWB-S [4] was validated as a short but effective tool for measuring wellbeing in parents of children with and without health conditions and studies on mental wellbeing among clinical and non-clinical adolescents highlight the importance of early psychological interventions in medical contexts. Also, the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) [94] was successfully validated in married couples and adolescent populations, confirming its utility in diverse health-related contexts.

The validation of wellbeing measures in specific healthcare populations ensures that interventions are evidence-based and tailored to patient needs. The Holistic approaches to wellbeing in medical contexts are gaining traction, emphasizing symptom management, psychological resilience, and emotional health. Integrating validated wellbeing scales in digital health tools and patient monitoring systems can enhance personalized medicine and mental health interventions. Understanding how cultural differences shape wellbeing perceptions allows for more inclusive healthcare policies and patient-centred care models. Instruments such as the EQ-HWB-S [4] and the Holistic Comfort Questionnaire [80] have also demonstrated sensitivity to change. While specific MCID values were not always reported, including such metrics in future validations would significantly improve the clinical utility of these tools. Where available, effect sizes or responsiveness metrics (e.g., an area under the curve, standard response mean) indicated the tools' effectiveness in tracking wellbeing improvements.

Assessing wellbeing in healthcare settings is fundamental to improving patient outcomes, optimizing caregiver support, and ensuring holistic treatment approaches. Traditional medical care has often prioritized disease management and symptom reduction. However, contemporary research highlights that wellbeing is crucial in determining recovery rates, treatment adherence, and overall quality of life. The validation of wellbeing instruments for specific patient groups, such as cancer patients, individuals with chronic illnesses, and caregivers, underscores the importance of integrating psychosocial and emotional wellbeing assessments into routine healthcare. Tools like the EuroQol and EQ-HWB-S [4] and the Holistic Comfort Questionnaire [80] allow for a more nuanced understanding of how health conditions impact daily life beyond clinical indicators. These assessments provide valuable insights for healthcare professionals, enabling them to address psychological distress, emotional resilience, and social support alongside physical health measures.

Developing interventions and digital solutions can enhance wellbeing, these validated tools offer a reliable framework for assessing the effectiveness of our approaches. For instance, in stroke rehabilitation and chronic illness management, it is not enough to measure physical recovery—patients' mental health, self-perception, and social reintegration are equally vital. By incorporating wellbeing assessments into digital health platforms, mobile applications, and therapy adherence tools, we can provide personalized feedback, early intervention strategies, and better patient engagement mechanisms. Furthermore, integrating wellbeing metrics into longitudinal studies allows us to track improvements over time, ensuring that our interventions alleviate

immediate distress and contribute to sustained wellbeing improvements.

Another critical aspect of wellbeing assessment in healthcare is its applicability to caregivers and healthcare professionals. Studies validating instruments like the Holistic Comfort Questionnaire [80] for caregivers recognize the emotional and psychological burden carried by those providing medical and emotional support. Healthcare professionals, particularly those in high-stress environments such as oncology, palliative care, and intensive care units, often experience burnout, compassion fatigue, and secondary trauma. Wellbeing assessment tools tailored for these groups can help institutions design targeted interventions, mental health programs, and workplace support strategies. By ensuring that caregivers and medical staff receive adequate psychological support, we can enhance the overall quality of patient care and create a healthier, more sustainable healthcare system.

Finally, the cross-cultural validation of wellbeing instruments in healthcare highlights the importance of adapting these tools to diverse populations. Cultural differences influence how people perceive wellbeing, illness, and emotional distress, meaning that an assessment tool developed in one region may not be fully applicable elsewhere. The validation of the Bengali version of the EORTC QLQ-SWB32 [91] and the Turkish version of the Holistic Wellbeing Scale [104] demonstrates the need for context-specific adaptations to ensure accuracy and relevance. In our work, where we aim to create inclusive and adaptable wellbeing interventions, these studies provide a foundation for ensuring that our solutions are scalable, culturally sensitive, and globally applicable. By integrating validated and culturally relevant wellbeing assessments, we can contribute to a more holistic, patient-centred, and equitable approach to healthcare worldwide. Prioritized instruments designed for healthcare settings reflect clinical environments' unique stressors, interpersonal dynamics, and organizational structures. These tools offer context specificity and strong psychometric performance, making them well-suited for staff-support programs and occupational health monitoring in hospitals, clinics, and long-term care facilities.

Category V - Health Literacy

Category V focuses on health literacy (Table 5), a crucial factor in public health, patient empowerment, and effective healthcare interventions. Health literacy encompasses accessing, understanding, evaluating, and applying health-related information, ensuring individuals can make informed decisions about their wellbeing. The research in this category aims to develop and validate health literacy instruments, particularly on mental health, cognitive impairments, and educational settings.

The studies in this category explore:

- **The development and validation of health literacy scales for different populations**, including stroke patients, adolescents, and older adults.
- **The role of health literacy in mental health outcomes**, emphasizing the need for accessible mental health education.
- **Cross-cultural validation of health literacy instruments**, ensuring applicability across different languages and health systems.
- **The relationship between health literacy and self-perception of health**, analyzing how individuals' understanding of their health status influences their wellbeing.

The methodologies used were Psychometric Validation, where many studies use factor analysis, Rasch modelling, and item response theory to test the reliability and validity of health literacy scales; Population-Specific Studies, where research targets specific demographics, such as stroke patients, adolescents, and middle-aged adults, ensuring that health literacy tools are tailored to their needs; Comparative and Cross-National Analyses: Some papers validate health literacy instruments in different countries, such as the Slovenian Mental Health Literacy Scale (S-MHLS) [118] and the Portuguese version of the Mental Health Literacy Scale (MHLS) [123] and Educational Interventions where several studies investigate how health literacy impacts school-aged children and adolescents, providing insights into early interventions to improve health awareness.

Table 5 - Category V – Health Literacy

Category V – Health Literacy
Article 26: Validation of the short-form Health Literacy Scale in patients with stroke [117]
Article 27: Slovenian Validation of the Mental Health Literacy Scale (S-MHLS) on the General Population: A Four-Factor Model [118]
Article 32: Validation of the short assessment of health literacy (SAHL-D) and short-form development: Rasch analysis [119]
Article 43: Development of an Instrument for the Health Literacy Assessment of Secondary School Students (HeLiASeSS) [120]
Article 44: Health Perception: Validation of a Scale for the Portuguese population [121]
Article 59: Elaboração e validação de um instrumento para mensurar Autopercepção de Saúde em adultos (APS) [122]
Article 60: Adaptation and Validation of the Portuguese Version of the Mental Health Literacy Scale (MHLS) [123]
Article 69: Psychometric Performance of the EQ Health and Wellbeing Short in a United Kingdom Population Sample [124]
Article 82: Translation and Validation of a Brief Health Literacy Instrument for School-Age Children in a Danish Context [125]
Article 83: Validation of the brief instrument “Health Literacy for School-Aged Children” (HLSAC among Norwegian adolescents) [126]
Article 84: The development and cross-national validation of the short health literacy for school-aged children (HLSAC-5) instrument [14]
Article 90: Positive mental health literacy: Development and validation of a measure among Norwegian adolescents [15]
Article 99: Validation of the Mental Health Literacy Scale in French University Students [127]
Article 113: Validation of the mild cognitive impairment health literacy assessment scale (MCI-HLA scale) in middle-aged and older adults [128]

The main findings were that the short-form Health Literacy Scale was validated for stroke patients, highlighting the need for accessible health information for individuals with neurological conditions. The Slovenian version of the Mental Health Literacy Scale (S-MHLS) [118] successfully identified gaps in public knowledge about mental health and stigma reduction. Also, the short health literacy assessment (SAHL-D) [119] demonstrated strong psychometric properties, making it a reliable tool for evaluating basic health literacy skills. The Health Literacy for School-Aged Children (HLSAC) [14,126] scale was validated across multiple countries, emphasizing the importance of integrating health literacy education into school curricula and the MCI-HLA scale [128] for cognitive impairment health literacy showed the need for specific health literacy tools for middle-aged and older adults facing cognitive decline.

The validation of health literacy instruments enables healthcare providers to assess patient education needs and design more effective communication strategies. Health literacy plays a critical role in mental health, as higher literacy levels are associated with better self-care, reduced stigma, and improved treatment adherence. The cultural adaptation of health literacy scales ensures that public health interventions are more inclusive, reducing disparities in healthcare access.

In summary, integrating validated health literacy scales into digital health solutions and patient education tools can enhance self-management, early intervention, and overall health outcomes.

Health literacy is a critical determinant of health outcomes, influencing how individuals navigate healthcare systems, understand medical information, and make informed decisions about their wellbeing [129]. Limited health literacy can lead to poor disease management, increased hospitalizations, and lower adherence to treatment plans, particularly among vulnerable populations such as stroke patients, older adults, and individuals with mental health conditions. The validation of instruments like the Mental Health Literacy Scale (MHLS) [123] and the Health Literacy for School-Aged Children (HLSAC) [126] highlights the growing recognition that health literacy must be addressed early to promote lifelong wellbeing. Additionally, studies focusing on cognitive impairment health literacy (MCI-HLA scale) [128] reveal the necessity of tailored health education strategies for ageing populations, ensuring that older adults can effectively engage with healthcare services and maintain autonomy in their health-related decisions.

We need to develop technology-driven interventions for wellbeing since the role of digital health literacy is becoming increasingly significant [1, 40, 130, 131]. The expansion of telemedicine, digital self-care tools, and AI-driven health assistants means that individuals need traditional health literacy and the ability to navigate online health information and digital platforms. Many validated instruments in this category can be integrated into digital health applications, allowing for real-time assessments of how well users understand and apply health information. This is particularly relevant for populations such as stroke survivors, individuals with chronic illnesses, and caregivers, who often rely on digital tools to track symptoms, manage medications, and access health resources. Ensuring these tools are user-friendly and aligned with health literacy principles will make digital healthcare more effective and accessible.

Moreover, health literacy is not just an individual skill but a social and systemic issue that requires collaboration across healthcare, education, and technology sectors. The validation of cross-national and culturally adapted health literacy instruments reinforces the need for inclusive health communication strategies considering language, education levels, and cultural differences. For instance, the Portuguese version of the Mental Health Literacy Scale (MHLS) [123] and the Slovenian Mental Health Literacy Scale (S-MHLS) [118] emphasize that health literacy interventions must be context-specific, addressing the unique barriers that different populations face in accessing and understanding health information. Integrating these validated health literacy tools into rehabilitation programs, community health initiatives, and digital health solutions will enhance patient empowerment and contribute to more equitable healthcare systems that prioritize accessibility and informed decision-making.

Healthcare-Worker Wellbeing Measures

Healthcare professionals operate in high-pressure environments that expose them to emotional strain, long hours, and significant responsibility. Consequently, there is a growing need for psychometrically validated tools that can capture not only psychological distress (e.g., burnout, anxiety) but also positive states such as job satisfaction, resilience, and overall mental wellness.

In recent years, several wellbeing instruments have been developed tailored specifically for healthcare settings. These tools vary by the target population (e.g., nurses, physicians, allied health workers), by the wellbeing domains they assess (e.g., holistic wellness, psychosocial stressors, job satisfaction), and by their intended use (e.g., staff wellbeing surveys, research, policy development).

Table 6 summarizes a selection of validated instruments used in healthcare workplaces. Each has undergone psychometric testing for reliability and, in many cases, cultural adaptation to suit national contexts or professional subgroups. For instance, the **Nursing Practitioner Holistic Care Index (NPHCI)** [95] was developed specifically for U.S. nurse practitioners and emphasizes job satisfaction and holistic wellness. Similarly, the **Physician Subjective Wellbeing Tool (S-PRT)** [92] addresses how physicians perceive their health-related quality of life in hospital environments.

Some instruments, like the **PWS-HC** [59] and **WE-10** [3], are broader in scope and have been successfully validated among diverse healthcare personnel, including hospital staff and healthcare workers in the public and private sectors. Others, such as the **SWEMWBS** [79], though initially developed for the general population, have been adapted for use among healthcare professionals in low-resource settings, such as Tanzania.

These instruments contribute to monitoring staff wellbeing and serve as foundational tools for designing interventions. Their metrics can inform institutional policies on workload management, burnout prevention, resilience training, and team support mechanisms.

Beyond providing psychometric rigor, these healthcare-worker wellbeing tools offer actionable insights that can directly inform intervention design, staff-support programs, and occupational health policies. Hospital directors and healthcare administrators can use these instruments to monitor stressors, detect early signs of burnout, and implement targeted wellbeing interventions. For instance, routine use of the S-PRT [92] or ProQOL [74] in clinical settings can guide institutional efforts to enhance peer support

mechanisms, allocate resources to mental health services, or redesign shift schedules. From a policy perspective, aggregated wellbeing data can support the development of national guidelines for staff wellbeing, inform health workforce planning, and advocate for funding of psychosocial care programs. CEOs and senior leadership teams across healthcare systems can use these tools to align strategic planning with human resource sustainability, ensuring that performance metrics consider employee wellbeing and patient outcomes. By bridging measurement with implementation, these validated tools transform wellbeing from a static indicator into a driver of systemic improvement.

Table 6 - Validated Wellbeing Instruments in Healthcare Workplaces

Instrument	Target group	Domains measured	Country/setting
NPHCI [95]	Nurse practitioners	Holistic wellness, job satisfaction	U.S. long-term care
PWS-HC [59]	Hospital staff	Physical, emotional, social health	Iranian teaching hospitals
WE-10 [3]	Healthcare employees	Work environment, psychosocial risks	Brazil
SWEMWBS [79]	Allied health workers	Mental wellbeing	Tanzania
WHHQ-18 [106]	Complementary/traditional medicine practitioners	Holistic health outcomes	UK
S-PRT [92]	Physicians	Subjective health-related quality of life	U.S. hospitals
ProQOL (Short) [74]	Nurses, allied-health professionals	Compassion satisfaction, burnout, secondary trauma	Spain
WHO-5 [61]	Medical educators	General mental wellbeing	Hong Kong
EQ-HWB-S [4]	Parents in clinical settings	Health and emotional wellbeing	UK
Holistic Comfort Questionnaire [80]	Informal caregivers	Physical, emotional, environmental comfort	Brazil
WEMWBS [79]	Healthcare workers	Psychological wellbeing	Tanzania

Discussion

The evolving landscape of wellbeing assessment presents opportunities and challenges for research, policy, and practice. This section discusses emerging trends, methodological advancements, and the practical implications of validated wellbeing instruments in various settings. Key focus areas include integrating digital health solutions, the role of wellbeing assessment in workplace and healthcare interventions, and the necessity for culturally sensitive and adaptive tools. By synthesizing findings from the systematic review, this discussion aims to bridge the gap between theoretical research and real-world applications, paving the way for future innovations in wellbeing assessment.

Emerging Trends and Future Directions in Wellbeing Assessment

As the field of wellbeing assessment continues to evolve, several emerging trends and research gaps are shaping its future development. One of the most significant trends is the integration of digital technologies into wellbeing measurement, including AI-driven mental health monitoring, mobile-based wellbeing assessments, and wearable health tracking. These technologies provide real-time data collection, enabling a more dynamic and personalized wellbeing assessment. However, validation of digital wellbeing tools remains a critical challenge, as psychometric rigor must be maintained when adapting traditional scales into digital formats. Future research should focus on how machine learning algorithms and sensor-based tracking can complement traditional wellbeing instruments while ensuring ethical considerations such as data privacy, algorithmic bias, and digital accessibility.

Another key direction is the personalization and contextualization of wellbeing assessments. While many validated instruments provide generalized wellbeing measures, there is an increasing need for adaptive scales that reflect individual differences in culture, health conditions, and socio-economic backgrounds. Advances in computerized adaptive testing (CAT) could allow for wellbeing measures that dynamically adjust based on respondents' prior answers, making assessments more responsive and tailored to specific populations. Additionally, as workplaces, healthcare, and education systems shift towards more individualized wellbeing interventions, researchers must explore how adaptive measurement frameworks can enhance the precision and applicability of wellbeing assessments in real-world contexts.

Finally, longitudinal and cross-cultural research remains a major gap in wellbeing assessment studies. While many tools have been validated for single-use applications, few have been tested for their stability and reliability over time. Understanding how wellbeing fluctuates across life transitions, economic changes, and societal crises (such as pandemics) is crucial for developing more resilient wellbeing assessment models. Additionally, the demand for culturally inclusive wellbeing instruments is growing with increasing globalization. Future research should emphasize multicultural validation studies that ensure wellbeing measures remain relevant, inclusive, and sensitive to diverse populations [83, 132]. Addressing these gaps will be essential for advancing the scientific rigor, accessibility, and impact of wellbeing assessment in the years to come.

Practical Implications and Applications of Wellbeing Assessment

The findings from this systematic literature review hold significant practical implications across various sectors, including healthcare, workplace environments [133], education, public policy, and digital health interventions. Validated wellbeing instruments are essential for monitoring, evaluating, and enhancing quality of life, providing valuable insights for practitioners, policymakers, and researchers. By integrating these wellbeing measures into real-world applications, organizations and institutions can develop more targeted and evidence-based interventions that promote holistic wellbeing.

Emerging Trends and Future Directions in Wellbeing Assessment

In healthcare, wellbeing assessments are crucial for improving patient care, mental health interventions, and chronic disease management. Instruments like the EuroQol Health and Wellbeing Short Version (EQ-HWB-S) [4] and the Holistic Comfort Questionnaire [80] allow healthcare providers to evaluate clinical outcomes and the emotional, social, and psychological aspects of wellbeing. These tools can be incorporated into patient monitoring systems, telemedicine platforms, and rehabilitation programs to track progress over time. Additionally, wellbeing assessments can help identify at-risk populations—such as caregivers, patients with chronic conditions, and individuals experiencing mental health challenges—ensuring that preventive and supportive interventions are implemented at the right time.

Healthcare and Patient-Centred Interventions

Validated wellbeing instruments are increasingly used in organizational psychology and human resource management to assess employee satisfaction, work engagement, and mental health risks. Tools like the Perceived Wellness Survey (PWS) [66] and the NIOSH Worker Wellbeing Questionnaire [60] provide organizations with actionable data to improve workplace culture, reduce stress, and prevent burnout. Implementing these assessments within employee wellbeing programs, leadership development, and corporate health strategies can help create healthier work environments. Additionally, longitudinal wellbeing tracking can inform workplace policies, ensuring that interventions adapt to evolving workforce dynamics, such as remote work, hybrid models, and digital collaboration.

Education and Child Wellbeing

In educational settings, wellbeing assessments are key in tracking students' mental health, resilience, and social integration. The Multidimensional Child Wellbeing Scale (MCWBS) [5] and the Winchester Adolescent Wellbeing Scale (WAWS) [6] provide valuable insights into how children and adolescents perceive their social, emotional, and psychological wellbeing. These instruments can be embedded into school counselling programs, curriculum development, and mental health initiatives to support student growth and learning. Moreover, integrating wellbeing assessments into teacher training programs can enhance educators' ability to foster positive classroom environments and early intervention strategies for students struggling with emotional or social challenges.

Digital Health and Wellbeing Technology

With the rise of digital health solutions, wellbeing assessments are being integrated into mobile apps, wearable devices, and AI-driven health platforms. Validated wellbeing measures can enhance the effectiveness of self-monitoring tools [134], mental health chatbots, and digital therapeutics, providing users personalized feedback on their wellbeing. For example, incorporating adaptive wellbeing assessments into fitness trackers or meditation apps can help users make informed lifestyle decisions that improve their overall health. Additionally, machine learning algorithms can analyze wellbeing data over time, allowing healthcare providers to offer personalized recommendations based on individual trends and patterns.

Public Policy and Community Wellbeing

Governments and policymakers increasingly rely on wellbeing assessments to shape public health strategies, urban planning, and social policy development. Wellbeing measures help evaluate the impact of social programs, economic policies, and community interventions, ensuring that resources are allocated effectively. Instruments such as the WHO-5 Wellbeing Index [18] and the Social Production Function Instrument (SPF-ILS) [13] provide policymakers with empirical data on population wellbeing, guiding evidence-based decision-making. For instance, wellbeing assessments can inform ageing policies, mental health funding, and community resilience programs, helping to create healthier and more sustainable societies.

Conclusion

Towards a More Integrated Approach to Wellbeing

The application of validated wellbeing instruments extends beyond academia into real-world settings, shaping policy reforms, workplace practices, patient care strategies, and technological innovations. As wellbeing assessment evolves, its integration into digital health, personalized medicine, and social interventions will enhance the ability to predict, prevent, and promote wellbeing across diverse populations. To maximize this impact, future efforts should prioritize accessibility, cultural adaptability, and responsiveness to emerging global health challenges [135].

A key avenue for future research is assessing the impact of public policies implemented over the past decade on populations' mental and physical health. Evaluating existing evidence can provide valuable insights into effective strategies and areas for improvement, guiding the development of more impactful wellbeing policies.

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