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RESEARCH ARTICLE

Youth Well-being: Exploring Models and Instruments

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ABSTRACT

Well-being is a phenomenon widely studied in the health field. Specifically in Psychology, well-being has been studied from different perspectives ranging from the cognitive evaluation of one's own life to positive functioning at different levels. Considering the different perspectives of studying well-being, this study carried out a scoping review with the objective of mapping the main models and instruments used to evaluate the phenomenon in the adolescent population in the last five years. The publication search strategy used the Periodicals Portal of the *Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES)*, including articles in Portuguese, English and Spanish, peer-reviewed, complete in the databases, with samples between 12 and 18 years old. The main findings of this review indicate a plurality of well-being models that derive from five main approaches, namely subjective well-being, psychological well-being, quality of life, wellness and mixed approaches. The proliferation of well-being models can generate theoretical divergences and conflicting interpretations, which directly impact the generalization of data, compromising the development of health interventions and policies. Also noteworthy is the gap in studies that investigate gender disparities and the nuances of racial and ethnic identity in relation to well-being in adolescence. These gaps suggest the need for more inclusive research that is sensitive to the particularities of adolescents to promote a more complete and effective understanding of well-being at this crucial stage of development.

Key words: Well-being; Adolescents; Health

Introduction

Promoting health and well-being during adolescence has gained academic relevance in recent years due to the multiple positive outcomes associated with it¹. The transitions experienced during adolescence are closely linked to the evolution and maturation of emotional, social and cognitive skills, which were previously less developed in childhood, now undergo a maturation process to give way to the skills needed in adult life^{2,3}. In this context, well-being emerges as one of the fundamental pillars that assist in this transition process and influence a wide range of results in the lives of individuals at individual, social and collective levels¹, highlighting, thus, the relevance of investigating this phenomenon in the adolescent population.

Despite understanding the different short- and long-term implications of promoting well-being in adolescence, a consensus has not yet been reached in the literature regarding the most appropriate approach and model to investigate this phenomenon in both adulthood and adolescence. Historically, research on well-being has focused on eudaimonic and hedonic perspectives. The eudaimonic perspective involves the optimal functioning of individuals and is encapsulated by the concept of Psychological Well-Being (PWB)⁴. On the other hand, the hedonic perspective understands Subjective Well-Being (SWB) as a tripartite structure that includes the cognitive evaluation of one's life and affective components corresponding to experiences of positive and negative emotions⁵.

Recent studies point to the wide application of SWB and PWB in the adolescent population^{3,6,7}, which are often associated with the school context^{8,9}. However, in recent years models that adopt a complementary approach between these two perspectives have emerged, offering a more comprehensive view of well-being and its connections with related constructs¹⁰. In a review study, Cooke et al.¹⁰ identified five approaches to well-being. The first corresponds to the approach based on the hedonic conception of well-being, which has SWB as its main model. The second approach corresponds to the eudaimonic conception of well-being, which has PWB as its main model. The third approach corresponds to Quality of Life (QOL). Studies on well-being within the QOL approach include, in the understanding of well-being, domains related to the physical, psychological and social aspects of individuals' lives¹⁰. Regarding its application with adolescents, there is a great use of the Health-Related Quality of Life (HRQOL) model in adolescents who present

psychopathologies related to depression, anxiety and externalizing behaviors¹¹⁻¹³.

The fourth approach corresponds to Wellness, which understands well-being from a holistic perspective, including spirituality as an important component of well-being¹⁰. Studies related to the Wellness approach with adolescents adopt spirituality models and are frequently carried out with adolescents with chronic diseases such as cancer and diabetes *mellitus*¹⁴⁻¹⁶. The fifth approach corresponds to mixed models that incorporate two or more of the four approaches mentioned above¹⁰. Studies with mixed models tend to have a lower proportion of adolescent populations¹⁷.

Despite the different approaches to well-being, in general, the study on this topic has received criticism regarding the samples used to understand the phenomenon. Several authors^{18,19} point out that the samples used to investigate well-being mostly correspond to white, middle- or upper-class people, who fit into a hetero-cis-normativity. Such samples were called WEIRD²⁰, an acronym for western, educated, industrialized, rich, and democratic societies. This sample profile can produce significant impacts on theoretical models and results obtained in studies. In this way, there is a tendency to generalize models that were primarily designed, developed and studied for individuals who do not represent the entire population they are part of (adolescents or adults), generating a negative outcome when developing interventions and/or policies for such groups.

Although recent literature reviews have investigated scientific production regarding well-being in children and adolescents, such reviews only focus on specific models such as subjective well-being and health-related quality of life^{21,22}, and do not present the characteristics of the samples used in the studies regarding the aforementioned indicators. Therefore, there is a need for studies that broadly investigate the theme of well-being applied to the context of adolescents, offering a general overview of the use of models.

This article is a scoping review with the aim of mapping and examining the models and instruments used to assess the well-being of adolescents in the last five years. More specifically, this study seeks to: I) Detail the characteristics of the samples selected in the studies, including information such as age group, gender and self-report of race and ethnicity; II) Describe the well-being models that were used in the studies analyzed; III) Provide a panoramic view of the use of these models based on the geographic origins of the studies; IV)

Describe the main instruments that were used, as well as the theoretical identification underlying each instrument; V) Identify the main constructs that were investigated in relation to the well-being of adolescents. In this sense, this study aims to provide a comprehensive understanding of models and instruments in the field of adolescent well-being, contributing to the advancement of knowledge in this area.

Method

Scoping reviews aim to map and categorize the extent, variety and nature of scientific evidence available on a given topic²³. Thus, different topics and methodological designs can be included in the review, in order to identify gaps in the study of a given topic²⁴.

PUBLICATION SEARCH STRATEGY

The search was carried out using the database of the Periodicals Portal of the *Coordenação de Aperfeiçoamento de Pessoal de Nível Superior* (CAPES), which is one of the largest virtual scientific collections in Brazil, bringing together content produced in the national and international context. The Portal has a collection of more than 39 thousand periodicals.

To perform the search on the Portal, several strings were tested, such as (*well-being* AND "*positive psychology*" AND *teenagers* OR *adoles** OR *youth*; *well-being* AND *assessment* AND *teenagers* OR *adoles** OR *youth*). However, the results were very comprehensive and difficult to operationalize when it comes to reading the manuscripts, highlighting the extensiveness of the study of well-being in Psychology and in different areas of knowledge. After refining the keywords, the string "*well-being*" (in the title) AND *psychometrics* AND *adoles** OR *youths* was used, in Portuguese, English and Spanish, in the last 5 years. The word "*psychometrics*" was used due to the understanding that psychological assessment instruments seek to systematize and operationalize theories. In this way, we understand that the search for psychometric instruments would also inform the use of well-being models used in adolescence.

As eligibility criteria, peer-reviewed articles in Portuguese, English and Spanish were selected, which were complete in the databases. Studies should include samples between 12 and 18 years old. Due to the large number of studies with samples

that include broad age groups (e.g., 08 to 21 years old; 05 to 15 years old), articles were included if they had at least 70% of the sample in the age group of 12 to 18 years old, or that presented the results of children and adolescents separately. Furthermore, as an inclusion criterion, studies should present at least one (1) instrument that assesses well-being in adolescents or an evaluative question about well-being. It is noteworthy that studies that included the assessment of well-being under the terms of positive and negative affects, life satisfaction, flourishing and happiness were included because it is understood that these terms are often found as synonyms for well-being in the literature²⁵.

Due to the characteristic of scoping reviews²⁴, studies with different methodological designs were included, such as studies on the adaptation of psychological instruments, epidemiological studies and studies that aim at the empirical investigation of theoretical models. Duplicate articles or those with missing data on the method and results were excluded. Articles in different languages (Polish [1] and German [1]), literature reviews, or that did not directly assess well-being were also excluded.

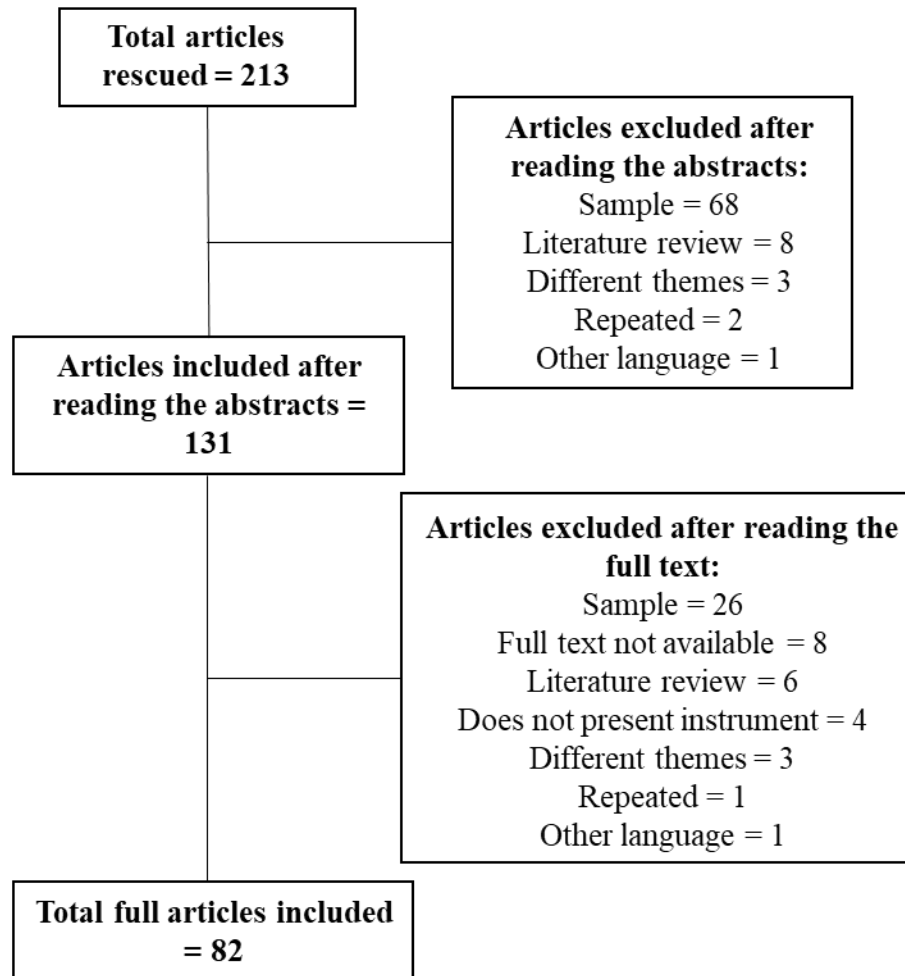
PROCEDURE

The searches and selection of articles were carried out by two independent researchers, in the same period of time in the databases following the inclusion and exclusion criteria, through the *Rayyan* selection platform²⁶. The *Rayyan* platform allows the import of retrieved studies and categorization of studies as included, excluded and "undecided". The first evaluation of the articles was carried out by reading the title, abstract and keywords. After this stage, the texts were consulted in their entirety to better evaluate the eligibility and exclusion criteria. Divergences between selection, inclusion and exclusion of articles were discussed and disagreements among researchers resolved. After the final selection of studies, an Excel spreadsheet was developed with the objectives of this study, and data from the included articles were extracted in response to these objectives.

Results

As a result of the searches, 213 studies were retrieved from the Capes Portal. In Figure 1, the study selection and exclusion diagram and the total number of articles included can be seen.

Figure 1. Flowchart of the selection of complete studies included and excluded



82 articles were included with publication dates between 2018 and 2023. The years with the highest publication of articles were 2019 with 19 articles, followed by 2022 with 17 publications, 2020 with 16 publications, 2021 with 13 publications, 2018 with 11 publications and 2023 with 6 publications. The complete list with all references included can be seen in the references section.

DESCRIPTION OF THE SAMPLE USED BY THE STUDIES

The studies included samples between 9 and 25 years old, indicating how the studies are sometimes interchanged with studies with child and adult populations. They have samples of 27 participants (instrument development studies, content validity stage per target population) up to samples of 180,700, which assess well-being between different countries.

Regarding the characteristics of the samples used in the studies, only one of the articles²⁷ included participants with different gender identities, including man, woman, non-binary and gender fluid. Two other articles^{28,29} mentioned men and women, categorizing other gender identities as "others". Despite providing this description, none of the articles conducted quantitative or qualitative analyzes related to well-being and gender. 19 surveys addressed issues related to ethnic self-declaration and racial identity. In particular, two of these studies^{30,31} explored well-being within the indigenous population.

MAPPING OF WELL-BEING MODELS USED IN THE LAST 5 YEARS

Table 1 presents the well-being models used by the studies included in this review.

Table 1: Well-being models used, operational definition, reference authors and frequency of use of the model.

Models	Operational definition	Reference author	N*
Subjective Well-being (SWB)	Tripartite structure, which encompasses the cognitive evaluation of one's life (satisfaction with life) and the experience of positive and negative affects.	Diener et al. ³²	30
Mental Well-being	A state of well-being in which each individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to contribute to his or her community.	WHO ¹⁷ ; Ryan & Deci ³⁴	14
Psychological Well-being (PWB)	Set of psychological resources (cognitive and emotional processes) that the individual has for optimal functioning, which encompasses the psychological dimensions: personal acceptance, positive relationships, autonomy, mastery of the environment, meaning in life and personal growth.	Ryffs & Keyes ⁴ ; Casullo ³⁵	8
Health-related Quality of Life	Health-related quality of life is a subjective and multidimensional construct, involving general aspects of quality of life (physical, emotional, social and spiritual well-being)	WHO ³³	5
Spiritual Well-being	It refers to the sense of meaning and purpose in life, inner peace, harmony, strength and comfort based on faith.	Peterman et al. ³⁶	3
Social and Emotional Well-being	Social and emotional well-being refers to the way a person thinks and feels about themselves and others. It incorporates both the individual characteristics of the adolescent and those of environments such as families, schools and communities.	Australian Institute of Health and Welfare ³⁷ ; Bernard et al. ³⁸ ; Gee et al. ³⁹	2
Happiness	Subjective sense of well-being in life.	Lyubomirsky & Lepper ⁴⁰	2
PERMA	Acronym for Positive Emotions (P), Engagement (E), Relationships (R), Meaning and purpose in life (M), and Accomplishment (A).	Seligman ⁴¹	1
	Understanding PERMA as a model of Psychological Well-being.	Soler ⁴³	1
EPOCH	Multidimensional model composed of Engagement (E), Perseverance (P), Optimism (O), Connectedness (C) and Happiness (H).	Kern et al. ¹⁷	2

Note: N= Frequency in which the model was used; *= References of articles that used each model can be found in the supplementary material.

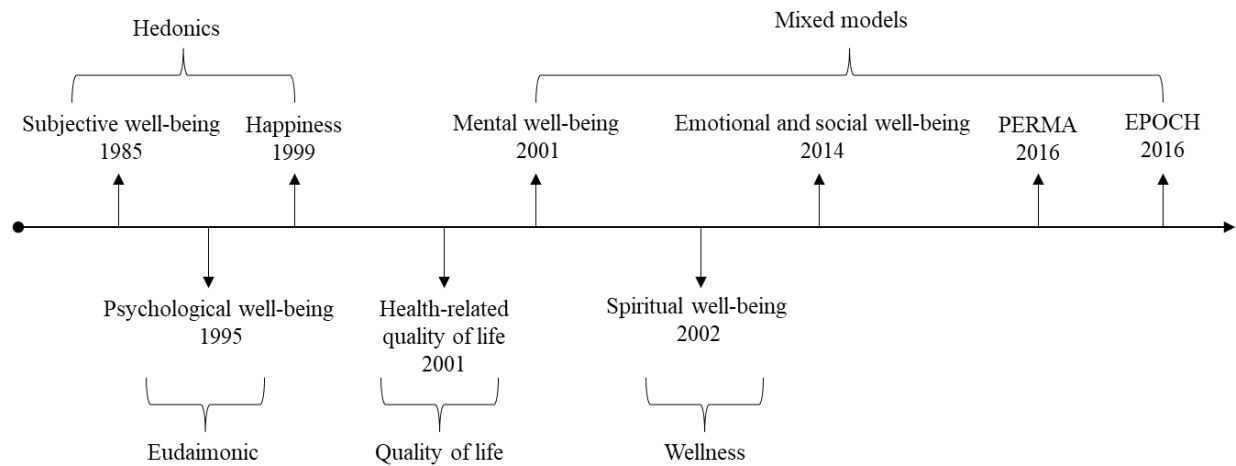
From the analysis of Table 1 it is possible to highlight the great support of researchers for SWB in comparison to other models, used as a theoretical model in 30 studies. The cohesion of the theoretical use of the model in relation to the reference author is also highlighted. All 30 studies cited Diener³² as a reference to SWB. Also noteworthy is the use of the Mental Well-being model in 14 studies and the PWB in eight.

15 studies did not identify the reference authors to define the well-being perspective adopted^{29,43-56}. Two studies propose new perspectives on well-being, namely: multidimensional well-being specific to adolescents⁵⁷ and well-being from the

perspective of indigenous young people³¹. Both perspectives approach well-being from the integration of physical, mental and spiritual health, as well as the relationship with quality of life, and propose instruments arising from the model itself.

The well-being models adopted in the studies also follow a chronological perspective as shown in Figure 2. In such a way that there is a tendency towards the development of models that encompass different perspectives of well-being, as well as different components over time. The most recent models aim to address the functioning of individuals in a global and integrated way.

Figure 2: Well-being models and their respective approaches in chronological order.



OVERVIEW OF THE USE OF MODELS BASED ON THE TERRITORY

Table 2 presents the use of models based on the territory. To report the territory, the origin of the

sample was considered, regardless of the journal published or the nationality of the authors.

Table 2: Use of well-being models by country and continent, considering the study sample.

Continent	Country (N)	Models used
Africa	South Africa (2), Algeria (2), Ethiopia (1), Kenya (1), Tanzania (1).	Subjective well-being; Psychological well-being; Mental well-being.
North America	Canada (2), United States (2), Mexico (1).	Subjective well-being; Mental well-being.
South America	Brazil (3), Uruguay (2), Colombia (1).	Subjective well-being; Psychological well-being; Spiritual well-being; PERMA.
Asia	China (3), South Korea (2), Hong Kong (2), Indonesia (1), Nepal (1), Kazakhstan (1).	Subjective well-being; Psychological well-being; Spiritual well-being; EPOCH.
Western Europe	United Kingdom (7), Germany (4), Ireland (3), Austria (1), Netherlands (2), France (1), Wales (1), Scotland (1).	Mental well-being; Health-related quality of life.
Mediterranean Europe	Spain (25), Portugal (7), Italy (3), Turkey (2).	Subjective well-being; Psychological well-being; Mental well-being; Happiness.
Northern Europe	Norway (3), Lithuania (1), Sweden (3), Finland (1), Denmark (1).	Psychological well-being; Health-related quality of life; Mental well-being.
Central-Eastern Europe	Poland (3), Romania (3), Slovenia (1), Armenia (1), Hungary (1), Georgia (1), Republic of Moldova (1), Russia (1), Czechia (1), Ukraine (1).	Mental well-being.
Middle East	Israel (1).	Subjective well-being.
Oceania	Australia (4).	Subjective well-being; Social and emotional well-being.

N= Publication frequency by country.

In general, well-being in adolescence has a large worldwide following, with publications in different parts of the world. Specifically, we note the high production in Spain (25 studies) in relation to the number of articles published in the last five years, accompanied by the use of traditional models for the study of well-being (Subjective Well-being; Psychological Well-being; Mental Well-being; Happiness).

It is also noteworthy that only in South America and Asia spiritual well-being and well-being from the

perspective of mixed models were assessed (PERMA and EPOCH).

WELL-BEING INSTRUMENTS

Table 3 presents the instruments, as well as the models from which they are derived. It is noteworthy that the instruments were ordered in the Table considering the year in which they were published, following the chronological reasoning proposed in Figure 2.

Table 3: Model, instruments, reference and frequency of use.

Theoretical model	Instrument	Reference	N*
Subjective Well-being	Single-item scale on Overall Life Satisfaction (OLS)	Campbell et al ⁵⁸	1
	Satisfaction with Life Scale (SWLS)	Diener et al ³²	17
	Positive and Negative Affect Schedule (PANAS)	Watson et al ⁵⁹	4
	Overall life satisfaction (OLS)	Huebner ⁶⁰	3
	Personal Well-Being Index (PWI)	Cummins et al. ⁶¹	2
	Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS)	Seligson et al ⁶² ; Huebner et al ⁶³	5
	Scale of Positive and Negative Experiences (SPANE)	Diener et al ⁶⁴	3
	Personal Well-being Index-School Children (PWI-SC)	Rees & Main ⁶⁵ ; Casas ⁶⁶	3
	Patient Reported Outcome Measurement Information System (PROMIS)	Cella et al ⁶⁷	1
	School-Related Well-being scale (SRWBS)	Loderer et al ⁶⁸	2
	"Your Life, Your Care"	Zhang & Shelwyn ⁶⁹	1
Mental Well-being	The five-item World Health Organization Well-Being Index (WHO-5)	WHO ⁷⁰	1
	Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS)	Clarke et al ⁷¹ ; Tennant et al ⁷²	6
	Short Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS)	Tennant et al ⁷²	3
	Mental Health Continuum-Short Form (MHC-SF)	Keyes et al ⁷³	2
	The Danish student Well-being Questionnaire (DSWQ)	Niclasen et al ⁷⁴	1
	Ecological Momentary Well-Being Instrument (EMOWI)	Buzzi et al ⁷⁵	1
Psychological Well-being	Scales of Psychological Well-Being for adolescents, short-version	Ryff ⁴	1
	Psychologic Well-being Scale (BIEPS)	Martina & Castro ⁷⁶	1
	Escala de Bienestar Psicológico para Adolescentes (EBPA)	Casullo ³⁵	2
	DISABKIDS Chronic Generic Measure-long version (DCGM-37)	The DISABKIDS Group Europe ⁷⁷	1
	Eudaimonic Well-Being Questionnaire (QEWB)	Waterman et al ⁷⁸	1
	Brief Psychological Well-Being Scale for Adolescents (BSPWB-A)	Viejo et al ⁷⁹	1
	Children's Worlds Psychological Well-Being Scale (CW-PSWBS)	Casas & González-Carrasco ⁸⁰	2
Health-related quality of life	Health-Related Quality of Life Questionnaire for Children and Young People (KIDSCREEN) and reduced version of 10 items	The KIDSCREEN Group Europe ⁸¹	4
	DISABKIDS Chronic Generic Measure-long version (DCGM-37)	The DISABKIDS Group Europe ⁷⁷ .	1
	Kids-CAT	Barthel et al ⁸²	1
Spiritual Well-being	12-item Functional Assessment of Chronic Illness Therapy—Spiritual Well Being (FACIT-Sp-12)	Peterman et al ³⁶	2
Social and Emotional Well-Being	Social and Emotional Scale	Bernard ⁸³	1
	Strong Souls Inventory	Thomas et al ⁸⁴	1

Theoretical model	Instrument	Reference	N*
Subjective Happiness	Subjective Happiness Scale (SHS)	Lyubomirsky & Lepper ⁴⁰	2
PERMA	PERMA-Profiler	Butler & Kern ⁸⁵	1
	Escala de bem-estar psicológico de Soler	Soler ⁴²	1
EPOCH	EPOCH measure of adolescent well-being	Kern et al ¹⁷	2

Note: N= Frequency in which the model was used. *= References of articles that used the aforementioned instruments can be found in the supplementary material.

Regarding SWB, there is a variety of instruments to evaluate the model. The use of the Satisfaction with Life Scale (SWLS)³² in 17 studies stands out. The instrument consists of five items scored on a Likert scale from 1 (Strongly disagree) to 7 (Strongly agree) and assesses satisfaction with life. In addition to the SWLS instrument, there is the use of single items to evaluate the life satisfaction component, which does not occur in other models. The date of development of such instruments also stands out, dating back to the 90s.

In relation to mental well-being, the most used instrument was the Warwick-Edinburgh Mental Well-being Scale (WEMWBS)⁷². The scale consists of 14 items scored on a Likert scale from 1 (Never) to 5 (Always), and covers the eudaimonic and hedonic components of well-being, namely, positive affects, positive relationships and optimal functioning.

Health-related quality of life was predominantly assessed by KIDSCREEN⁸¹. The instrument evaluates 10 dimensions of quality of life related to health, namely Health and physical activity; Feelings; Emotional state; Self-perception; Autonomy and free time; Family/Family environment; Financial aspect; Friends and Social Support; School environment; Bullying Taunting. The instrument consists of 52 questions related to the aforementioned dimensions and scored on a five-point Likert scale, which is related to the occurrence and intensity of situations, over a period of one week.

Respecting subjective, mental, psychological well-being and health-related quality of life, there is a diversity of assessment instruments. The same does not occur with the models of spiritual well-being, emotional and social well-being, happiness, PERMA and EPOCH. Part of this may be related to the models' proposition date, which is more recent compared to other models.

All instruments are self-report Likert scales, except for the EMOWI instrument⁷⁵, which is a pictorial scale. EMOWI uses pictorial anchors, designed to

facilitate use on screens and easy to understand so that it can be answered several times throughout the adolescent's day. Buzzi et al⁷⁵ points out that the instrument can be useful for evaluating daily variations in the mental well-being of adolescents arising from environmental conditions or interventions carried out.

CONSTRUCTS ASSOCIATED WITH WELL-BEING

The constructs associated with well-being will be presented in four axes, namely, Constructs in the positive psychology paradigm, Constructs in the health-illness paradigm, Constructs associated with physical health and Constructs associated with the context. Regarding the constructs in the positive psychology paradigm, the use of emotional intelligence⁸⁷⁻⁹², character strengths^{7,93-95}, high skills^{96,97}, basic psychological needs^{98,99} and positive youth development (PYD)¹⁰⁰⁻¹⁰¹ stands out.

Other well-studied constructs in the well-being literature have also been evaluated in the adolescent population, including self-esteem^{55,56,92,101,103,104}, self-efficacy^{28,55,56,101,103}, skills and academic motivation^{99,105-107} and coping^{28,108}. Present in only one study, social skills⁵², psychological adjustment⁶, mental health⁸⁸, optimism⁸⁷, resilience³⁰, mindfulness and self-compassion⁸⁹, gratitude⁵⁰, mental health¹³, social support⁵⁶, parental relationships¹⁰⁹ and body appreciation¹⁰² were evaluated.

Regarding the constructs in the health-disease paradigm, the articles predominantly deal with themes related to depression, anxiety and psychological distress, present in 19 studies^{6,12,28,29,50,55,89,92,97,99,101,103,104,108,110-114}. Four articles assessed well-being in adolescents with chronic diseases, such as cancer, type 1 diabetes and cystic fibrosis^{12,14-16}. Pandemic-related distress, child maltreatment, internalizing and externalizing behavior^{27,106}, anger¹¹⁰, aggression¹¹⁵, violence⁵¹ and cyber violence^{56,116}, psychosomatic behaviors^{89,112,117,118}, intellectual disability¹¹⁹, negative emotions¹²⁰, hyperactivity⁴³, loneliness⁹⁹, resistance to change^{48,49} and pessimism^{87,108}.

About the constructs associated with the context that are applied, well-being was investigated in relation to the situation of residential vulnerability^{45,46,69,121}, personality^{48,49,90,94}, well-being in adolescent caregivers¹²², neurocognitive aspects¹²³, life events related to politics⁹⁵ and poverty¹²⁴. Regarding the constructs associated with physical health, few articles were retrieved, related to physical activity^{107,125} and sleep, cigarettes, alcohol^{43,125}.

Discussion

The present scoping review aimed to map and examine the models and instruments used to understand well-being in adolescence. Specifically, it sought to investigate the samples used, production based on the territory, the instruments used and related constructs. The results indicate that research into well-being in adolescence emerges as a field of study of vast scope, encompassing different approaches and theoretical models, and widespread use on a global scale. The diversity of models applied to adolescence reflects the tendency to mirror structures developed to assess well-being in adults¹⁰. In general, it indicates an inclination towards multifactorial exploration, aligned with the analysis of the intrinsic components of eudaimonism, as a way of more deeply understanding the experience of well-being in adolescence¹²⁶.

Regarding the models used, the adherence to SWB stands out. Huta^{126,127} indicates that adherence to the SWB model is partly justified by the easy operationalization of its components, which results in measures with few items and easy to understand. On the other hand, eudaimonic components of well-being tend to be more complex and abstract, resulting in instruments with more items and greater difficulty in understanding.

With regard to mental well-being, which is the second most used model in studies, it is concerned with evaluating psychological well-being from the perspective of Ryff and Keyes⁴, emotional³² and social⁷⁵. It is noteworthy that the perspective makes a conceptual approach to PWB by emphasizing the components linked to optimal functioning. However, mental well-being adopts a more comprehensive perspective by including aspects related to physical health and the social field. Reaffirming the concepts of health proposed by the World Health Organization³³ that include the general functioning of individuals, that is, the holistic understanding of health. The wide use of the model indicates the adherence of researchers in the area, although the model still encompasses a series of definitions and components for it⁵⁵, reflecting the division between

researchers in the field of well-being, and specifically, mental well-being.

Still regarding models that are similar in terms of their components, it is also noteworthy that the EPOCH model is an offshoot of the PERMA model applied to adolescence. The authors Kern et al¹⁷ point out that psychological assessment has historically focused predominantly on studies involving adults, while the unique perspectives of children and adolescents have been largely neglected. In this context, based on the PERMA model, originally developed with a focus on adults, Kern et al¹⁷ proposed a theoretical model that identifies five positive characteristics (Engagement, Perseverance, Optimism, Connectedness and Happiness) in young people that influence the PERMA domains in adulthood. In other words, this model directs attention to the positive qualities of adolescents that contribute to the well-being and flourishing of individuals in adulthood.

In general, the models used in studies with adolescents corroborate the well-being approaches for adults proposed by Cooke et al¹⁰. The SWB and PWB approaches are easy to identify as they carry their approach in their name. The happiness model is also considered in this study as an approach to SWB due to its definition that is close to life satisfaction (component of SWB). The health-related quality of life model would integrate the QOL approach. Spiritual well-being is part of the Wellness approach and the other models (mental well-being, emotional and social well-being, PERMA and EPOCH) are part of the mixed models.

Although positive given the breadth of studies, the proliferation of well-being models deserves attention. The development of broad well-being models, which encompass different aspects of well-being, is beneficial, especially when it comes to public policies for evaluating and intervening with the population. However, the use and development of multiple well-being models also signals a divided field of study, which diverges mainly regarding the components of well-being. Non-identification, overlapping models and multiplicity of well-being components can increase theoretical divergences, conflicting interpretations and bias the interpretation of data. In a review carried out by Moskowitz et al¹²⁸, the authors point out that well-being was operationalized inconsistently, hindering the evaluation of the effectiveness of interventions in positive psychology to promote mental health, which could have implications that delay the advancement of well-being studies in several populations.

Another point that deserves attention concerns the transposition of theoretical models previously developed for adults to different sample groups, whether in relation to age group, gender, among other sociodemographic characteristics. Most of the models used to understand well-being in adolescence correspond to models that were developed for adults, and their scientific evidence relies on samples with specific characteristics that will be discussed later^{4,32,41}.

It was also possible to map the evolution of the concept of well-being over time, and its strong expansion to more comprehensive models in terms of components, and linked to the general health of individuals, that is, the holistic understanding of health. Part of this may be related to the evolution in the understanding of health as proposed by the WHO³³ which emphasizes well-being as the optimal functioning of individuals in different spheres, considering that this phenomenon is more than the absence of diseases. Contributing to the advancement of models in relation to the number of components, the development of more advanced data analysis techniques, such as factor analysis and its various consequences, may have impacted the use of more robust models.

Despite significant advances in this field, substantial gaps remain in investigations related to gender disparities, as well as nuances of racial and ethnic identity, which can amplify the effects of discriminatory processes rooted in social structures. These differences, often overlooked, can crucially influence adolescents' experience of well-being, perpetuating inequalities and obstacles to optimal functioning.

The samples used in studies tend to have participants with well-defined characteristics, such as skin color, ethnicity, gender and social class. In the studies included in this review, only one made reference to gender diversity and none of the studies carried out analyzes that considered gender and ethnic differences in relation to well-being. van Zyl and Rothmann¹⁹ point to the fragility of the profile of participants in research carried out in the field of positive psychology, as they are predominantly “Western, educated, industrialized, rich and democratic” (WEIRD - acronym for Western, Educated, Industrialized, Rich and Democratic).

The absence of studies that investigate well-being in relation to gender and the deficit in relation to racial and ethnic identity presents itself as a

significant gap in studies in the area¹⁸. Understanding well-being includes a comprehensive analysis of the experiences of different groups of people and failure to investigate the impact of gender and racial identity variables on well-being can result in negative consequences such as the invisibility of the experiences of specific groups and the perpetuation of systemic inequalities.

In general, well-being can be understood as a construct that has great support on the world stage. Specifically in relation to the adolescent population, the results of this scoping review point in the same direction. However, it is worth highlighting that the perspectives adopted to investigate the construct in different parts of the world can be strongly influenced by the culture of each country.

Regarding the related constructs analyzed in the included studies, there is an increase in studies that address well-being and phenomena such as emotional intelligence; character strengths; high skills, basic psychological needs and positive youth development (PYD). Such psychological phenomena have gained strength and support from researchers in recent years and with the development of the area. In a review carried out by Ferreira and Lamas²¹, the authors point to the absence of studies with adolescents that addressed the aforementioned constructs and which are already considered emerging constructs in Positive Psychology.

Conclusion

In summary, this review comprehensively addressed research on well-being in adolescence, outlining an overview of the models and instruments used, as well as highlighting important issues, such as the diversity of samples, the evolution of the concept of well-being and the increasing attention to related constructs. The results revealed the breadth of this field of study, with a profusion of theoretical models and approaches, reflecting both the search for a multifactorial understanding of well-being and the influence of culture on research on the topic. However, they also highlighted challenges, such as the lack of adequate attention to gender diversity and racial identity, as well as the tendency to generalize models developed for adults to the adolescent population. These gaps point to the need for more inclusive research that is sensitive to the particularities of adolescents, in order to promote a more complete and effective understanding of well-being at this crucial stage of development.

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Supplementary Material

Supplementary Table referring to the content of Table 1.

Models	Operational definition	Reference author	Reference list
Subjective Well-being (SWB)	Tripartite structure, which encompasses the cognitive evaluation of one's life (satisfaction with life) and the experience of positive and negative affects	Diener et al. (1985)	Blasco-Belled et al., 2022; Casas & Gonzalez-Carrasco, 2018; Casino-García et al., 2021; Cejudo et al., 2020; Costa et al., 2020; Crescentini et al., 2018; Barrera et al., 2019; Barrera et al., 2023; Dion et al., 2022; Forrest et al., 2018; González-Cabrera et al., 2019; González-Carrasco et al., 2019; Inman et al., 2022; Llosada-Gistau et al., 2019; Lombas et al., 2018; Mónaco et al., 2019; Moreira et al., 2020; Moreira et al., 2021; Ortuño-Sierra et al., 2018; Ortuño-Sierra et al., 2020; Prado-Gascó et al., 2020; Putwain & Embse, 2021; Putwain et al., 2021; Quansah et al., 2022; Shek et al., 2020; Slone & Shoshani, 2021; Tomy et al., 2020; Villanueva et al., 2022; Viñas et al., 2019; Zhang & Shelwyn, 2020; Zou et al., 2022
Mental Well-being	A state of well-being in which each individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to contribute to his or her community.	WHO (2001); Ryan & Deci (2001)	Bell et al., 2019; Gámez-Guadix et al., 2020; Hoffman et al., 2019; Oyebo et al., 2023; Ringdal et al., 2018; Shannon et al., 2020; Anthony et al., 2022; Melendez-Torres et al., 2019; Urke et al., 2021; Buzzi et al., 2022; Cosma et al., 2022; Niclasen et al., 2018; Piqueras et al., 2022; Reinhardt et al., 2020
Psychological Well-being (PWB)	Set of psychological resources (cognitive and emotional processes) that the individual has for optimal functioning, which encompasses the psychological dimensions: personal acceptance, positive relationships, autonomy, mastery of the environment, meaning in life and personal growth.	Ryffs & Keyes (1995); Casullo (2002)	Borualogo et al., 2022; Casino-García et al., 2021; García-Álvarez et al., 2021; Magalhães & Calheiros, 2020; Nahkur et al., 2021; Salavera et al., 2020; Valero-Moreno et al., 2020; Viejo et al., 2018
Health-related Quality of Life	Health-related quality of life is a subjective and multidimensional construct,	WHO (2001)	Cejudo et al., 2020; Davison et al., 2023; González-Cabrera et al., 2019; Kassa et al., 2020; Otto et al., 2021

Models	Operational definition	Reference author	Reference list
	involving general aspects of quality of life (physical, emotional, social and spiritual well-being)		
Spiritual Well-being	It refers to the sense of meaning and purpose in life, inner peace, harmony, strength and comfort based on faith.	Peterman et al. (2002)	Alvarenga et al., 2022; Alvarenga et al., 2019; Liu et al., 2022
Social and Emotional Well-being	Social and emotional well-being refers to the way a person thinks and feels about themselves and others. It incorporates both the individual characteristics of the adolescent and those of environments such as families, schools and communities.	Australian Institute of Health and Welfare. (2012); Bernard et al. (2018); Gee et al. (2014)	Bernard et al, 2018; Gorman et al., 2021
Happiness	Subjective sense of well-being in life.	Lyubomirsky & Lepper (1999)	Blasco-Belled et al., 2022; Lau et al., 2021
PERMA	Acronym for Positive Emotions (P), Engagement (E), Relationships (R), Meaning and purpose in life (M), and Accomplishment (A).	Seligman (2011)	Burke et al., 2019
	Understanding PERMA as a model of Psychological Well-being.	Soler, 2016	García-Álvarez et al, 2021
EPOCH	Multidimensional model composed of Engagement (E), Perseverance (P), Optimism (O), Connectedness (C) and Happiness (H).	EPOCH	Maurer & Daukantaitė, 2021; Zeng & Kern., 2019

Supplementary Table referring to the content of Table 3.

Theoretical model	Instrument	Reference author	Reference list
Subjective Well-being	Single-item scale on Overall Life Satisfaction (OLS)	Campbell et al. (1976)	Viñas et al., 2019
	Satisfaction with Life Scale (SWLS)	Diener et al. (1985)	Blasco-Belled et al., 2022; Casino-García et al., 2021; Cejudo et al., 2020; Barrera et al., 2019; Barrera et al., 2023; Dion et al., 2022; González-Cabrera et al., 2019; González-Carrasco et al., 2019; Llosada-Gistau et al., 2020; Lombas et al., 2018; Mónaco et al., 2019; Ortuño-Sierra et al., 2018; Prado-Gascó et al., 2020; Shek et al., 2020; Slone & Shoshani, 2021; Villanueva et al., 2022; Zou et al., 2022
	Positive and Negative Affect Schedule (PANAS)	Watson et al (1988)	Cejudo et al., 2020; Crescentini et al., 2018; Inman et al., 2022; Quansah et al., 2022
	Overall life satisfaction (OLS)	Huebner (1994)	Casas & Gonzalez-Carrasco, 2018; Llosada-Gistau et al., 2019; Llosada-Gistau et al., 2020
	Personal Well-Being Index (PWI)	Cummins et al. (2003)	González-Carrasco et al., 2019; Llosada-Gistau et al., 2019
	Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS)	Seligson et al. (2003); Huebner et al. (2006)	Costa et al., 2020; González-Carrasco et al., 2019; Inman et al.,

Theoretical model	Instrument	Reference author	Reference list
			2022; Moreira et al., 2020; Moreira et al., 2021
	Scale of Positive and Negative Experiences (SPANE)	Diener et al. (2009)	Casino-García et al., 2021; Mónaco et al., 2019; Prado-Gascó et al., 2020
	Personal Well-being Index-School Children (PWI-SC)	Rees & Main (2015; Casas (2016)	Llosada-Gistau et al., 2020; Ortuño-Sierra et al., 2020; Tomyn et al., 2020
	Patient Reported Outcome Measurement Information System (PROMIS)	Cella et al. (2007)	Forrest et al., 2018
	School-Related Well-being scale (SRWBS)	Loderer et al. (2016)	Putwain & Embse, 2021; Putwain et al., 2021
	“Your Life, Your Care”	Zhang & Shelwyn (2020)	Zhang & Shelwyn, 2020
Mental Well-being	The five-item World Health Organization Well-Being Index (WHO-5)	WHO (1988)	Cosma et al., 2022
	Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS)	Clarke et al. (2011); Tennant et al. (2007)	Bell et al., 2019; Gámez-Guadix et al., 2020; Hoffman et al., 2019; Oyebode et al., 2023; Ringdal et al., 2018; Shannon et al., 2020
	Short Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS)	Tennant et al. (2007)	Anthony et al., 2022; Melendez-Torres et al 2019; Urke et al., 2021
	Mental Health Continuum-Short Form (MHC-SF)	Keyes et al. (2008)	Piqueras et al., 2022; Reinhardt et al., 2020
	The Danish student Well-being Questionnaire (DSWQ)	Niclasen et al. (2018)	Niclasen et al., 2018
	Ecological Momentary Well-Being Instrument (EMOWI)	Buzzi et al. (2022)	Buzzi et al., 2022
Psychological Well-being	Scales of Psychological Well-Being for adolescents, short-version	Ryffs (1995)	Magalhães & Calheiros, 2020
	Psychologic Well-being Scale (BIEPS)	Martina & Castro (2000)	Casino-García et al., 2021
	Escala de Bienestar Psicológico para Adolescentes (EBPA)	Casullo (2002)	García-Álvarez et al., 2021; Valero-Moreno et al., 2020
	DISABKIDS Chronic Generic Measure-long version (DCGM-37)	The DISABKIDS Group Europe (2011).	Kassa et al., 2020
	Eudaimonic Well-Being Questionnaire (QEWB)	Waterman et al. (2010)	Salavera et al., 2020
	Brief Psychological Well-Being Scale for Adolescents (BSPWB-A)	Viejo et al. (2018)	Viejo et al., 2018
	Children’s Worlds Psychological Well-Being Scale (CW-PSWBS)	Casas & González-Carrasco (2021)	Borualogo et al., 2022; Nahkur et al., 2021
Health-related quality of life	Health-Related Quality of Life Questionnaire for Children and Young People (KIDSCREEN) and reduced version of 10 items	The KIDSCREEN Group Europe (2006)	Cejudo et al., 2020; Davison et al., 2023; González-Cabrera et al., 2019
	DISABKIDS Chronic Generic Measure-long version (DCGM-37)	The DISABKIDS Group Europe (2011).	Kassa et al., 2020
	Kids-CAT	Barthel et al (2017)	Otto et al., 2021
Spiritual Well-being	12-item Functional Assessment of Chronic Illness Therapy—	Peterman et al. (2002)	Alvarenga et al., 2022

Theoretical model	Instrument	Reference author	Reference list
	Spiritual Well Being (FACIT-Sp-12)		
Social and Emotional Well-Being	Social and Emotional Scale	Bernard (2003)	Gorman et al., 2021
	Strong Souls Inventory	Thomas et al. (2010)	Bernard et al, 2018
Subjective Happiness	Subjective Happiness Scale (SHS)	Lyubomirsky & Lepper (1999)	Blasco-Belled et al., 2022; Lau et al., 2021
PERMA	PERMA-Profilier	Butler & Kern (2016)	Burke et al., 2019
	Escala de bem-estar psicológico de Soler	Soler (2016)	García-Álvarez et al., 2021
EPOCH	EPOCH measure of adolescent well-being	Kern et al., 2016	Maurer & Daukantaitė, 2021; Zeng & Kern., 2019