

**Development of Well Being Scale: Implication for Adolescents in Addis Ababa
Secondary Schools
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Abstract

In this dynamic world, keeping well-being among adolescents has become a public health main concern, especially for adolescents studying at secondary schools, in Addis Ababa, Ethiopia. In the present study, well-being has been operationally conceptualized. The investigator identified five areas of well-being scale as the capacity to establish positive aspects of life, general satisfaction, and sense of achievement, having an appropriate place or position, and dissatisfaction with life. The reliability and validity of the instrument have also been calculated and reported. The test-retest method of reliability of the well-being scale of adolescents was used and the estimated reliability coefficient of the well-being and the validity of the test also have been done. The correlation between the test-retest of the well-being and the subscales coefficient was found to be significant at 0.01 levels. This study highlights some of the positive well-being scale in conducting research in the secondary school population. Thus, the well-being instrument can be considered as a reliable tool to be used for research purposes.

Keywords: well-being, instrument, adolescence, secondary schools

In the general sense, well-being is an ongoing process, not an irregular treatment. It is based on an individual's interaction in a complex world. The World Health Organization (1948) defined health as physical, mental, and social well-being not merely the absence of disease or infirmity. Recently spiritual well-being was added to this definition.

The well-being challenges among the world population are on the rise across all corners of the world. Furthermore, in the year 2015, it was anticipated that 1.2 billion adolescents (aged 10–19 years), representing 16 percent of the worldwide residents make them the prime multitude of adolescents in record World Health Organization; (2004). In recent years, the global community has moved to comprehend the significant role adolescents' well-being plays in realizing worldwide development goals World Health Organization; (2004), Furthermore, according to the World Health Organization (2004), mental health conditions account for 16% of the global load of disease in adolescents.

In this dynamic world, it is necessary that all the concerned stakeholders should strive in all aspects and across all sectors in working for adolescents' proper mental well-being development.

Nonetheless, the realization of the significance of looking for ways of improving the human relationship with the environment for the well-being of human beings and the wider global population is reflected in regards to the United nations' sustainable development Goals (goal 3) (Chandra and Chand, (2018). In regards to this, there is a growing interest among the wider population of Ethiopia to seek a curative way to relieve adolescents' mental well-being crisis. Hence, it was found essential to construct a well-being instrument to monitor mental well-being at an adolescent level and evaluate mental well-being promotion initiatives and soothe the dilemma of the wider population. This article describes the development and validation of a new

instrument, encompassing only positively worded items relating to different aspects of the Positive Mental Well-Being instrument (PMWBI).

Research suggests that well-being scales are required to quantify and better realize mental well-being among adolescents living in this vivacious world. To this end, I reviewed studies focusing on well-being instruments used in adolescent populations studying at selected secondary schools living in Addis Ababa, Ethiopia.

In the light of theoretical orientation and review of related literature, it seems difficult to choose one concept or a theory to measure the well-being of adolescents in Addis Ababa, Ethiopia. There is no appropriate instrument or questionnaire at hand to measure the well-being of adolescents in Addis Ababa, Ethiopia. Thus, this salient need initiated the investigator to conduct a well-being instrument.

Statements of the problem

Adolescence is a stage of development that initiates many new life changes and defies when individuals encounter opportunities related to choices in education, work, love life, and self-development. Therefore, adolescence constitutes a significant time when a rock-hard foundation for good quality mental health can be put up (Kieling C, Baker-Henningham H, Belfer M, et al. (2011). Despite a huge number of investigations on mental health, previous studies have largely focused on mental health problems and disorders in adolescence. Research on mental wellbeing measures, especially with regard to secondary school adolescents in Addis Ababa, has been lacking

Furthermore, the measure taken so far in regards to adolescent well-being is not up to the mark by the concerned stakeholders and researchers to bridge the gap in adolescents' mental health well-being measures. Thus, this study is one step forward in order to bridge the gap and assist the concerned researchers to use this well-being instrument for adolescents' mental well-being measure

Research objective

In line with the above problems, this study tends to develop a well-being instrument. Therefore, this study suggested workable solutions by addressing the following basic research questions:

Develop a mental well-being instrument for adolescents studying at the secondary school, Addis Ababa, Ethiopia

Operational definition

In the presence of study, well-being has been operationally defined as the capacity to establish positive aspects of life, general positive aspects of life, general satisfaction, and sense of achievement, having an appropriate place or position, and dissatisfaction with life.

Selection of study area

Studies were included in the systematic review. The time period of the search strategy was chosen due to the academic working days and scrutinizing the prioritization of adolescent well-being and the focus on an adolescent positive outlook.

The review was carried out in accordance with the preferred reporting statements for systematic reviews and Meta-Analyses guidelines which means an examination of data from a number of independent studies of the well-being instrument, in order to determine overall trends. The number of issues for each database was verified and the citations were done to APA citation style. Following this, the investigator reviewed all the titles and abstracts to assess which articles are suitable for the enclosure. The full-text articles were considered and independently reviewed to decide which articles should be included for the final consideration

Sample size and sampling procedure

The population of the study was all grades 9 up to 10 students from the randomly selected five secondary schools which include, Yekatit 12, Yekatit 23, Addis ketema, AkakiKality, and Bethlehem. The well-being scale of adolescents was administered to the same group of individuals after one month and the correlation was computed between the two sets of scores. 120 students from the sample schools were approached and recruited for their participation. In regards to the students' community 600 students out of which 300 were male and 300 females were drawn from grades 9 and 10 who were attending in 2021/22 from the five randomly selected sample secondary schools to participate in the well-being questionnaire. After getting the map of the selected secondary schools from the city government of Addis Ababa education bureau and the students list from the respective secondary school's directors the investigator administered his questionnaires.

The secondary schools in the whole ten sub-cities share a more or less similar feature in the management system and infrastructural facilities. For the quantitative assessment, the requisite sample size (SS) required was determined using a single population formula assuming that one in four

respondents are dissatisfied based on our quick assessment with 0.05 level of significance and margin of error of 5.0% which yielded nearly 100 and divided the estimated SS equally across the schools.

Ethical consideration

This research follows the ethical standards of the American Psychology Association (APA). After written permission was protected from the curriculum and instruction department Addis Ababa University, Addis Ababa education bureau and the respective secondary schools, verbal consent was also obtained from each participant. After the objective of the study was explained to all respondents in their local language and the right to withdraw from filing the well-being scale questionnaire was also communicated. Anonymity and confidentiality of the information were also assured and the privacy of each respondent was maintained throughout the data collection process.

Data source

The well-being scale data were composed from primary and secondary sources. In order to get first-hand information, primary data were collected from 600 students by deploying well-being questionnaires. While secondary sources were collected from; Journals, well-being and mental health articles, and books were referred to.

Data Quality

The quality of the data was observed at different levels and included the followings: the due emphasis was given to questionnaire designing to capture the objectives of the study, logically sequenced, free of scientific terms and non-leading structured questionnaire and pre-tested on 5% of government secondary schools of Addis Ababa city government education bureau. The collected data were checked by the investigators on daily basis for any incompleteness and/or consistency and timely action was made

Presentation and Interpretation of Data

In this part of the study, the analysis and interpretation of data collection from the respondents are briefly presented. Most of the data gathered were interpreted, analyzed, and followed by discussions. For the sake of convenience related questions were managed together. Whereas, the quantitative data collected through questionnaires were categorized, tallied, and tabulated. The data were analyzed using the test-retest method and correlation to provide a better understanding of the well-being measurement scale.

Method of the Scale construction

Further, initially, 80 statements were framed, concerning the well-being instrument of adolescents. Further, a profound evaluation of the statements and working vocabulary were evaluated by senior health experts. Thus, 30 statements were dropped and the 2nd draft of well-being scale consisted of 50 statements which were distributed into different areas as shown in Table-1

Table-1A second draft of the well-being scale

N	Area	No of statements
1	Capacity to establish positive aspect of life	10
2	General satisfaction	9
3	Sense of achievement	6
4	Having an appropriate place or portion	9
5	Dissatisfaction with life	16
	Total	50

Since the standardization of the instrument needs experts to solicit involvement it was thought appropriate to have university health specialists. After expert’s consultation and judgment 30 items were retained, while 20 items were dropped. Hence, the final draft of the scale had 30 items.

Table- 2 Tryout of well-being scales

N	Area	No of statements
1	Capacity to establish positive aspect of life	4
2	General satisfaction	5
3	Sense of achievement	3
4	Having an appropriate place or portion	6
5	Dissatisfaction with life	12
	Total	30

The subjects are required to respond to each item in terms of “Yes” or “NO”. There is no time limit. The total number of “Yes” is counted and constitutes the well-being score of that particular individual. A high score on the wellbeing shows a high level of well-being and a lower score on the scale shows a low level of well-being. The maximum score for the instrument is 30.

Internal Consistency

Person’s product-moment of correlation was computed, to find the internal consistency of the total well-being scores and the sub-scale, and an inter-correlation matrix was drawn for N=600.

Table -3 Inter correlation between the Subscales and Total W.B. N=600

N	Variable	CAPL	GS	SA	HAP	DL	WB
1	CPAL		42+	47+	51+	13++	62+
2	GS			46+	43+	10++	65+
3	SA				62+	11++	56+
4	HAP					21+	58+
5	DL						53+

Note: +significant at 0.1 levels

Reliability

Tests retest method of the well-being scale of adolescents. The purpose of the test-retest method was to see the consistency of responses. The well-being instrument of adolescents is administered to the same group of individuals after one month and the correlation was computed between the two sets of scores.

Further, reliability as defined by Cohan, et.al (2007:146), is the evenness, soundness, and explicability of the measure instrument over time, and with the same respondents. It is the degree to which the measuring scale yields dependable and precise outcomes when the attribute being considered remains stable Leedy &Ormrod, (2001:99). Cronbach alpha was calculated for each subscale of the variables. This is a measure of the internal consistency of the wellbeing instrument. Table 4.1 shows the estimated reliability coefficient of the well-being scale of adolescents through the test-retest technique.

Table -4 Reliability Coefficient of the well-being scale through the test-retest method and odd-even procedure

N	Method	Sample	Interval	reliability
1	Test-Retest	30	One month	0.78
2	Odd-Even	30	One month	0.68

Table -5 Summary of the wellbeing scale variables

N	Area	No of statements
1	Well-being scale	.83
2	Capacity to establish positive aspect of life	.85
3	General satisfaction	.78
4	Sense of achievement	.79
5	Having an appropriate place or position	.74
6	Dissatisfaction with life	.70

The correlation between the well-being scales which were administered within a one-month interval was found to be 0.78 which is significant at 0.01 levels. The correlation between the test-retest of the well-being instrument and the subscales coefficient was

found to be significant at 0.01 levels. Hence, the test-retest of the scale, the subscales, and the odd-even procedure have a highly positive and significant correlation. Thus, the well-being instrument can be considered as a reliable tool to be used for research purposes.

Validity

The coefficient variation of the well-being scale (mean 17.2 and SD. 3.62) for adolescents was found to be CV .21 which suggests the lower degree of variability and a higher degree of homogeneity and stability of the scale. While in PGI General Well-being scale (mean 9.45 and S.D. 8.12) by Verma, Dubey, and Gupta (1983) CV is .85 which denotes a greater degree of variability and a lesser degree of stability and homogeneity. This indicates satisfaction with validation.

Conclusions

The investigator identified 30 well-being scales that were used to measure either mental health or mental well-being of adolescents studying at the secondary schools of Addis Ababa, Ethiopia. The well-being scale provides support for the conceptual notion of ‘reflective practice as shared recovery’, demonstrating that group and mutual learning space in which well-being recovery can take place. The main implication that can be drawn from this construct is that the well-being instrument identified in the literature as contributing to secondary school adolescents is of equal importance to all the adolescents in the study, regardless of whether they study in government or private secondary schools. Many adolescents’ challenges are not avoidable. However, the possible mental well-being status can guarantee a good life. As such, the findings from the assessment of previous research trends suggest that well-being scales seem to be more imperative in measuring mental well-being among adolescents..

The well-being instrument provides support for the conceptual notion of ‘reflective practice as shared recovery’, demonstrating that group and mutual learning space in which well-being recovery can take place

Recommendations

1. This wellbeing scale helps researchers, policymakers, and health professionals better understand the complex issues experienced by adolescents in general and in particular those who are studying at the secondary schools at Addis Ababa within resource-limited scenery.
2. It is recommended that more research to compare adolescents’ status should be undertaken in different environments. Hence, the wellbeing scale aids for a better life system of adolescents living in different environments and also will assist as they move to adulthood.
3. This well-being instrument is helpful, so I recommend that more well-being scales for a larger adolescent population should be developed as this measure could give us more insight into which development of well-being scales as it is

more important to adolescents living in any circumstance.

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Appendix

Development of the Well Being Scale Among Adolescents

(30 Items version)

Age-----

Sex----- Male/
Female

Grade-----

School-----

Area-----

Instruction: Please tick (√) Yes or NO the items applicable to you to the following statements

No	Items	YES	NO
1	Do you show firmness in controlling your conduct?		
2	Are you able to concentrate on your activities?		
3.	Are you content with the activities you are carrying on?		
4	Do you feel happy in your life?		
5	Do you feel you are productive?		
6	Do you think relatives and friends are ready to help you at the time of need?		
7	Do you find it difficult to relax most of the time?		
8	Do you worry too much about your life?		

9	Do you feel that you get exhausted easily?		
10	Do you feel that happiness can be achieved with effort?		
11	Do you feel lonely even when you are in the family or with close friends?		
12	Do you feel happy most of the time?		
13	Are you bothered by nervousness?		
14	Do you feel satisfied with life in general?		
15	Do you have the feeling of being useful, wanted?		
16	Do you feel you are in good health?		
17	Do you worry about your result?		
18	Do you daydream repeatedly about your well-being?		
19	Do ideas often run through your mind so that you cannot accomplish your daily activities?		
20	Do you frequently get headaches or fever?		
21	Do you frequently get colds?		
22	Do you get frequent stomach aches?		
23	Do you worry about illness?		
24	Do you sleep well?		
25	Are you satisfied with your studies?		
26	Do you have a sense of belongingness?		
27	Do you feel low spirits most of the time?		
28	Do you feel your life is useless?		
29	Do you think other people like you?		
30	Do you sometimes feel sad without reason?		