
Examining Multidimensional Life-Satisfaction and Psychological Well-being Among School-Going Adolescents in a Rural Area

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Abstract

Adolescence is a critical developmental phase marked by identity formation, behavioural changes, and mental health challenges. This study assessed the relationship between satisfaction with family, friends, and school, and psychological well-being among 250 adolescents in Nigeria. Using a cross-sectional design, participants were conveniently sampled and completed validated measures of life satisfaction and psychological well-being. The results confirmed all three hypotheses: satisfaction with family, friends, and school significantly and positively predicted psychological well-being. Satisfaction with family was found to be a foundational aspect, as strong family support fosters emotional resilience and stability, which are vital for well-being. Similarly, satisfaction with friends played a crucial role, highlighting the importance of social connectedness and peer support in adolescence. School satisfaction also emerged as a significant predictor, suggesting that positive school environments contribute to adolescents' sense of achievement and competence. These findings underscore the importance of supportive social relationships in fostering adolescents' psychological well-being. The study highlights the need for interventions targeting family dynamics, peer relationships, and school environments to enhance mental health among adolescents. It was suggested that future studies adopt longitudinal designs to explore the long-term effects of these factors on well-being and address potential limitations such as the use of self-report measures and the moderate reliability of the psychological well-being scale used in this study.

Keywords: life-satisfaction, psychological well-being, School-Going, Adolescents

Introduction

Adolescence is usually seen as a critical development phase characterised by the development of the idea of self and exploration (Feng & Cui, 2023). Behaviour changes such as sensation-seeking, alternating social roles, and shifts in attention and motivation, usually occur during the transition from childhood to adolescence making it a phase marked by both vulnerability and opportunity (Lukoševičiūtė-Barauskienė et al., 2023). Individuals in this phase encounter diverse challenges such as academic and societal pressure and, the

need for autonomy which may lead to mental health and developmental problems (Feng & Cui, 2023). Significant events capable of altering life trajectories such as completing school, starting families, and economic growth, substance misuse, self-harm, and legal troubles, may occur during this stage (Agarwal et al., 2020).

Extant studies have shown that mental health problems constitute one of the greatest disease burdens of disease for adolescents (Orth & van Wyk, 2022). The World Health Organisation (WHO) estimates reveal that over 45,000 deaths annually among 10-19-year-olds are from self-harm, making it a leading cause of death in this group while other mental health problems, including behavioural issues, anxiety, and depression, contribute significantly to nonfatal disease burdens, with millions of years lost to disability globally (Guthold et al., 2023). Adolescents are at higher risks of psychological distress, accidents, substance use, and other mental health-related problematic behaviours, with symptoms of 75% of adult mental health conditions first surfacing during this stage (Lukoševičiūtė-Barauskienė et al., 2023). This is significant considering that mental health is widely recognised as pivotal to well-being (Guthold et al., 2023).

Dahl et al. (2018) argued for special attention to be paid to adolescents as it is a critical phase of rapid growth, learning, and neurobiological development, where the lives of young people can either take a positive or negative turn quickly. Similarly, Lukoševičiūtė-Barauskienė et al. (2023) observed that despite the challenges associated with adolescence, it also offers opportunities for psychosocial growth, self-expression, and the development of mature relationships and personal responsibility. In this regard, there is a need to create an environment that supports the flourishing of this population hence the study of psychological well-being among the same.

Ryff and Keyes (1995) model of psychology well-being is widely used in the well-being literature and is adopted in this study. They defined psychological well-being through six key dimensions: self-acceptance (embracing one's strengths and weaknesses), autonomy (life aligning with personal values), personal growth (utilising one's potential and skills), purpose in life (meaning and direction in life), environmental mastery (effectively managing life circumstances), and positive relations with others (quality connectedness with others)

(Omreore & Nwanzu, 2022). The model has been adopted in several studies in the literature examining psychological well-being among adolescents suggesting its utility and adaptability across context (e.g., Gao & McLellan, 2018; Sagone & Caroli, 2014; Viejo et al., 2018)

Monika et al. (2023) remarked that there is a need to regard psychological well-being among adolescents as a socio-psychological necessity. Adolescents' psychological well-being is vital for positive self-evaluations, life satisfaction, and overall happiness; It enables individuals to appraise their lives positively, leading to greater life satisfaction and an enhanced quality of life (Monika et al., 2023). It is critical for effective functioning and is associated with better health, relationships, and overall performance (Kamil & AL-Hadrawi, 2022). Understanding the psychological well-being of adolescents is consonant with psychology's drive to integrate the positivist approach where the focus is on strengths and flourishing rather than weakness and disability in understanding behaviour.

A construct that has been linked to psychological well-being in the literature is life satisfaction. Life satisfaction is a requisite for positive mental health and the link between the latter and psychological well-being has been demonstrated in extant literature (Iram et al., 2021). Life satisfaction is often conceptualised as the extent to which an individual likes their life; it is a subjective, holistic, and cognitive appraisal of one's quality of life (Malvaso & Kang, 2022). As a key indicator of subjective well-being, life satisfaction often declines during adolescence, especially among females, and is negatively correlated with depression and other negative emotions, which are common in this age group (Piko, 2023). In assessing life satisfaction, scholars have proposed both unidimensional models, which assess life satisfaction as a single overall measure, and multidimensional models, which evaluate satisfaction across specific life domains.

The multidimensional model is consistent with the bottom-up theory which posits that overall life satisfaction is a product of satisfaction with several facets of one's life (Malvaso & Kang, 2022). Malvaso and Kang (2022) further observed that being satisfied with life domains that are congruent with one's values is more critical for overall satisfaction. Consequently, in this study, the multidimensional model of life satisfaction is adopted and

satisfaction with family, friends, and school domains are examined as predictors of psychological well-being among adolescents. Family, friends, and school have been identified as factors that influence adolescents' development, playing a vital role in the socialisation experience. Piko (2023) observed that social support from family and friends was critical to adolescents' life satisfaction and well-being. Additionally, positive school experiences have also been associated with optimal well-being and minimising the risks associated with negative behaviours (Mihic et al., 2023).

Due to the impact the quality of relationships with family, friends, and school may have among adolescents, this study aims to assess satisfaction with family, friends, and schools as predictors of psychological well-being among adolescents. Positive interactions in these aspects of life may promote life satisfaction and general mental health, while negative experiences may contribute to psychological distress. Achieving the study's aim may aid in developing interventions that support the psychological well-being of adolescents during this vulnerable yet promising phase.

The Present Study

The importance of adolescents' psychological well-being in the Nigerian context is not lost on researchers. Studies have examined psychological well-being among adolescents in Nigeria (e.g., Badanas, 2023; Azuka-Obieke, 2013; Bakare, 2013; Dombo & Awoyemi, 2016; Mazzucato et al., 2015; Okoiye et al., 2015; Tosin et al., 2022). However, a review of the literature revealed a methodological flaw in many despite their rich contribution to the psychological well-being literature in the Nigerian context. For instance, many of these studies did not use an instrument validated for the adolescent population – the instruments used to measure well-being in most were developed using an adult population. Best practices in measurement suggest that measurement scales used in a new context, with a different population, require an adaptation of the scale and items to the new context (Ambuehl & Inauen, 2022). This improves the precision and trustworthiness of results. This study addresses this gap by using measures adapted and validated for use among adolescents.

Furthermore, despite the relationship between life satisfaction and psychological well-being (Waigel & Lemos, 2024), it has not been examined among adolescents in Nigeria. Few studies have examined individual-related internal positive psychological states as antecedents of psychological well-being among adolescents. Feldman et al. (2021) observed that the role of internal states and mechanisms in the experience of psychological well-being among adolescents remains understudied in contemporary literature. Examining domain-specific life satisfactions, especially those with a significant impact on individual socialisation outcomes can aid the development of tailor-made interventions to support the psychological well-being of adolescents. The present study aims to address the aforementioned gap in the literature by examining satisfaction with family, friends, and school as predictors of psychological well-being of adolescents. Given the critical nature of adolescence as a developmental stage, understanding these relationships is essential for fostering better mental health outcomes.

The significance of this study lies in its potential to enhance our understanding of the key factors that contribute to the psychological well-being of adolescents in Nigeria. By examining the roles of family, friends, and school satisfaction as predictors of well-being, this research can inform targeted interventions aimed at improving mental health outcomes among Nigerian youth. The findings may provide valuable insights for educators, parents, and policymakers, helping them create supportive environments that foster positive mental health and overall well-being during this critical developmental stage. Additionally, this study could contribute to the broader literature on adolescent psychology, offering a culturally specific perspective that may be relevant to other similar contexts.

The study is built on the self-determination theory (SDT), a theory that seeks to explain the factors that motivate people and promote their well-being and functionality (Ryan & Deci, 2017). According to Ryan and Deci (2023), SDT posits that well-being and flourishing result from the satisfaction of three basic psychological needs; competence (feeling capable), autonomy (feeling in control of their choices), and relatedness (feeling connected to others). They suggested that while individual differences are reflected in human goals and drives, these three needs are vital for well-being. Furthermore, the individual's social context (e.g.,

family, peers, school) can play a role in meeting these needs thus supporting their self-regulation, interpersonal relationships, and overall well-being (Ryan & Deci, 2023).

Using the SDT, satisfaction with family, friends, and school can play an essential role in meeting these basic psychological needs among school-going adolescents in rural areas. When adolescents feel supported and connected to their family, it nurtures a sense of relatedness, fostering emotional security and belonging (Blum et al., 2022). Positive relationships with friends also contribute to relatedness, offering social support and validation, which are essential for developing self-esteem and reducing loneliness (Alsarrani et al., 2022). Additionally, satisfaction with school, where adolescents spend a significant portion of their time, enhances their sense of competence through academic success and engagement, while supportive teachers and peers promote autonomy by encouraging independent thought and self-expression (Tomé et al., 2012).

From the foregoing, it can be implied that for adolescents, family, friends, and school provide means for satisfaction of these basic psychological needs which may result in increased motivation, mental well-being, and resilience, even in challenging rural environments. Consequently, the following is hypothesised:

H₁: Satisfaction with family will significantly and positively predict the psychological well-being of adolescents.

H₂: Satisfaction with friends will significantly and positively predict the psychological well-being of adolescents.

H₃: Satisfaction with school will significantly and positively predict the psychological well-being of adolescents.

Method

Sample and Research Design

Two hundred and fifty school-going adolescents were conveniently sampled from various schools in Abraka, Delta State, Nigeria. Their ages ranged from 11 to 18 years. A majority of the participants were between 12-15 years old (49.6%), and slightly more than half were female (58%). Most of the respondents attended public schools (62.8%) and lived in nuclear

family settings (72.8%). All of the participants were in secondary school. The full sociodemographic information is presented in Table 1. Convenience sampling was chosen for its practicality and ease of access to participants, allowing for efficient data collection within the available time frame. This study employs a descriptive cross-sectional design. The descriptive nature of the design allows for a comprehensive understanding of the relationships between these variables within the population at a specific point in time. The cross-sectional approach facilitates the collection of data from a large sample of adolescents at a single time point, enabling the assessment of the current levels of satisfaction and psychological well-being. Frequency and percentage were used in describing the sociodemographic characteristics of the study's participants while mean and standard deviations were also reported for participants' responses to the study's measures. The internal consistency of the study's measures was assessed using Cronbach alpha and was found to be adequate. The simple linear regression was used to test the study's hypotheses. All analyses were carried out using IBM SPSS v27.

Table 1

Sociodemographic characteristics of respondents

	<i>n</i>	%
Age		
≤11years	27	10.8
12-15years	124	49.6
16-18years	98	39.2
Gender		
Male	105	42
Female	145	58
School		
Public	157	62.8
Private	87	34.8
Missionary	3	1.2
Living with/in		
Nuclear family	182	72.8

Extended family	39	15.6
Step-parent	12	4.8
Single-parent	11	4.4
Grandparents	6	2.4

Measures

Standardised measures were used to assess the constructs being studied. The survey also consisted of demographic questions (age, gender, type of school, type of family) to characterise the sample and confirm inclusion criteria were met.

Psychological Well-being Scales for Youths (PWB-SF-Y; Stavradi et al., 2022).

The PWB-SF-Y assesses eudaimonic well-being in children and adolescents using a single-item per dimension approach – the scale uses six items to measure each dimension of psychological well-being (purpose in life, autonomy, environmental mastery, self-acceptance, positive relationships, and personal growth). The new instrument was based on the Psychological Well-being Scales proposed by Ryff (1989). The original instrument presents good psychometric properties. The scale is a useful, brief measuring instrument that reduces children's and adolescents' cognitive fatigue during evaluation. Participants responded to the six items using a scale ranging from 1 (strongly disagree) to 6 (strongly agree). Stavradi et al. (2022) reported a Cronbach alpha of .78 for the scale suggesting the internal consistency of the scale. Also, acceptable fit indices were found confirming the six-factor structure of the scale. In this study, a Cronbach alpha value of .645 was found.

Abbreviated Multidimensional Students' Life Satisfaction Scale (a-MSLSS; Huebner et al., 2013).

This scale was developed to measure life satisfaction within the student population. The abbreviated version of the MSLSS is a revised version of the original scale. Both the a-MSLSS and the MSLSS measure children and adolescents' self-assessment of their satisfaction with five subscales of their lives – family, friends, school, self, and living environment. However, in the a-MSLSS, all reverse keyed items were deleted in the abbreviated version resulting in 30 items as opposed to the 40 in the original scale. Responses are scored on a 6-point Likert scale ranging from 1= strongly disagree to 6=

strongly agree. Huebner et al. (2012) reported a Cronbach alpha of .71-.81 for the scale's dimension suggesting the internal consistency of the scale. Also, acceptable fit indices was found confirming the five-factor structure of the scale. In this study, a Cronbach alpha value ranging from .771, .814, and .812 were found for the subscales of satisfaction with family, friends, and school respectively.

Procedures

The survey was carried out on a face-to-face paper-and-pen questionnaire. The researcher made visits to both public and private schools in Abraka town and sought consent from the school principal and class form teacher to administer the questionnaire. The researcher briefed each class on the purpose of the study, what was expected of them, and their rights to confidentiality and withdrawal by reading out the information in the consent form. Upon completion of the questionnaires, participants were appreciated for their participation. The entire study took no more than 15 minutes to complete. The survey contained a brief information sheet explaining the study's purpose, procedures, risks, benefits, and voluntary nature. Informed consent was obtained before starting the survey. All data were anonymised as personal identifying data were not required of participants. Participants were assured of confidentiality.

Result

The correlation among the study's constructs is presented in Table 2.

Table 2

Mean, standard deviation, and correlation among the study's construct

	<i>M</i>	<i>SD</i>	1	2	3
Satisfaction with family	4.30	0.46			
Satisfaction with friends	4.09	0.51	.272**		
Satisfaction with living environment	4.25	0.44	.308**	.236**	
Psychological well-being	4.17	0.37	.329**	.415**	.431**

** . Correlation is significant at the 0.01 level

As seen in Table 2, There were significant correlations among the variables of the study and all predictors had a relationship with the outcome. Satisfaction with family and psychological well-being were found to be significantly and positively correlated, $r = .329$, $p < .001$ suggesting a moderate positive relationship. Satisfaction with friends and psychological well-being were also significantly and positively correlated, $r = .415$, $p < .001$ suggesting a moderate positive relationship. Lastly, a significant and moderate positive correlation was found between satisfaction with living environment and psychological well-being, $r = .431$, $p < .001$.

Three hypotheses were tested in this study. It was hypothesized that satisfaction with family, friends, and school will significantly and positively predict psychological well-being. All hypotheses were tested using simple linear regression. The results are presented in Table 3.

Table 3

Simple regression analyses showing satisfaction with family, friends, and school predicting adolescents' well-being

	<i>b</i>	SE	95%CI		<i>p</i>
			LL	UL	
Satisfaction with family	.26	.048	.168	.357	.001
Satisfaction with friends	.29	.041	.214	.375	.001
Satisfaction with school	.36	.047	.262	.448	.001

Note. CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

The first hypothesis proposes a significant and positive predictive relationship between satisfaction with family and adolescent's psychological well-being. Results showed a significant regression equation, $F(1, 248) = 30.00$, $p < .001$, with an R^2 of .11. Satisfaction with family significantly and positively predicts adolescents' psychological well-being ($b = .262$, $p < .001$). The results suggest satisfaction with family accounts for an 11% variance in psychological well-being and a unit increase in the former will result in a .262 increase in the latter.

Satisfaction with friends was hypothesised as a significant and positive predictor of adolescents' psychological well-being in the second hypothesis. The regression was statistically significant ($F(1, 248) = 51.49, p < .001, R^2 = .17$) showing satisfaction with friends significantly and positively predicting adolescents' psychological well-being ($b = .294, p < .001$). The results suggest satisfaction with friends accounts for a 17% variance in adolescents' psychological well-being and a unit increase in satisfaction with friends will result in a .29 increase in adolescents' psychological well-being.

The third hypothesis of the study stated that satisfaction with school will significantly and positively predict adolescents' psychological well-being. Results revealed a significant regression equation, $F(1, 248) = 56.61, p < .001$ with an R^2 of .19. Satisfaction with school was a significant and positive predictor of adolescents' well-being ($b = .36, p < .001$). The results suggest satisfaction with school accounts for a 19% variance in adolescents' psychological well-being and a unit increase in satisfaction with school will result in a .36 increase in adolescents' psychological well-being.

Discussion

This section aims to discuss the study's findings as it relates to extant literature, the study's objectives and hypotheses. The primary objective was to examine the extent to which satisfaction with family, friends, and school predicts the psychological well-being of adolescents in Nigeria. To achieve this, three hypotheses were formulated: first, that satisfaction with family would significantly and positively predict adolescents' psychological well-being; second, that satisfaction with friends would have a significant positive impact on psychological well-being; and third, that satisfaction with school would also significantly and positively predict psychological well-being among adolescents. The results provided strong support for all three hypotheses, indicating that each of these domains - family, friends, and school - plays a crucial role in shaping adolescents' psychological well-being.

First, it was found that satisfaction with family positively predicts adolescents' psychological well-being. This is consistent with the wider literature that has highlighted the role of family relationships in promoting well-being (Thomas & Umberson, 2017). Szcześniak and Tułeczka (2020) also reported a relationship between family functioning and life satisfaction, The

positive relationship between family satisfaction and psychological well-being underscores the foundational role of the family unit in an adolescent's life. Family is often the first source of emotional support, guidance, and stability (Stevenson et al., 2022). Adolescents who feel satisfied with their family relationships are likely to experience strong emotional bonds, effective communication, and a supportive home environment. This satisfaction fosters a sense of security and belonging, which are essential for developing self-esteem, emotional resilience, and overall well-being. When family dynamics are positive, adolescents are better equipped to navigate the challenges of this developmental stage, reducing the risk of mental health issues and promoting a more positive outlook on life (Stevenson et al., 2022).

Satisfaction with friends was also found to be a significant predictor of adolescents' psychological well-being. This is congruent with Kang (2023) study that underscored the significance of close relationships in providing valuable social support and found a relationship between the number of close friends and life satisfaction. Also, feeling connected socially has been found to positively influence both psychological and physical well-being (Song et al., 2023). Friendships are another critical component of adolescent life, as peers become increasingly important during this stage. The significant positive impact of friend satisfaction on psychological well-being highlights how crucial peer relationships are for adolescents. Friends provide emotional support, companionship, and a sense of belonging outside the family. Satisfying friendships contributes to adolescents' social development, helps them form their identities, and provides a buffer against stress (Fehr & Harasymchuk, 2018). Positive peer interactions can enhance self-esteem and provide a network of support, which is particularly important as adolescents seek independence from their families. This sense of belonging and acceptance among peers is vital for fostering a healthy psychological state.

Lastly, the study's result showed that satisfaction with school positively predicts adolescents' well-being. This is consistent with Horanicova et al. (2022) study which showed a relationship between school satisfaction and adolescents' health and behaviour outcomes. School satisfaction's strong predictive value for psychological well-being reflects the significant amount of time adolescents spend in educational settings. Schools are not just places for academic learning but also environments where social skills, self-discipline,

and a sense of achievement are developed. When adolescents are satisfied with their school experience, it often means they feel supported by teachers, are engaged in learning, and have positive relationships with classmates (Özdemir & Özdemir, 2020). This satisfaction can lead to higher self-esteem, a stronger sense of competence, and a greater feeling of accomplishment (Hashmi, & Fayyaz, 2022). A positive school environment that meets students' needs can reduce feelings of alienation, decrease the likelihood of academic-related stress, and foster a sense of purpose, all of which contribute to better psychological well-being (Çınar-Tanrıverdi & Karabacak-Çelik, 2023).

Recommendation

The findings of this study highlight the need for supportive family environments, healthy peer relationships, and positive school experiences to promote the mental health of young people. Therefore, the following is recommended.

1. Programmes should be designed to strengthen family bonds. Strong family connections are crucial for adolescents' psychological well-being.
2. Encourage healthy peer relationships. Friendships play a significant role in adolescents' mental health.
3. Schools should focus on creating a positive and supportive atmosphere. A good school environment greatly influences students' well-being.
4. Incorporate mental health education in schools and develop policies that support the mental health of adolescents. Teaching students about well-being can have long-term benefits.

Limitations and Suggestions for Future Studies

The use of a cross-sectional design may also impact the study's ability to infer cause-and-effect relationships (Solem, 2015). This necessitates longitudinal designs to examine how life satisfaction and well-being change over time. The use of self-report measures can lead to measurement error due to social desirability bias and recall bias (Caputo, 2017; Latkin et al., 2017). Also, care should be taken while interpreting the study's findings as the reliability coefficient of the psychological well-being measure used in this study fell short of the .70

cut-off. Future studies should examine the reliability and validity of the measure in the Nigerian context.

References

- Agarwal, S., Srivastava, R., Jindal, M., & Rastogi, P. (2020). Study of adolescent stage and its impacts on adolescents. *European Journal of Molecular and Clinical Medicine*, 7(6), 1369–1375.
- Alsarrani, A., Hunter, R. F., Dunne, L., & Garcia, L. (2022). Association between friendship quality and subjective wellbeing among adolescents: a systematic review. *BMC Public Health*, 22(1). <https://doi.org/10.1186/s12889-022-14776-4>
- Ambuehl, B., & Inauen, J. (2022). Contextualized measurement scale adaptation: A 4-Step tutorial for health psychology research. *International Journal of Environmental Research and Public Health*, 19(19), 12775. <https://doi.org/10.3390/ijerph191912775>
- Azuka-Obieke, U. (2013). Single-parenting, psychological well-being and academic performance of adolescents in Lagos, Nigeria. *Journal of Emerging Trends in Educational Research and Policy Studies*, 4(1), 112-117.
- Badanas, O. L. (2023). Parental support as a correlate of psychological well-being of in-school adolescents in Central Lagos, Nigeria. *Forum Ilmu Sosial*, 50(1), 32-38.
- Bakare, A. O. (2013). Socio-demographic variables as predictors of psychological well-being amongst the adolescents with hearing impairment in Southwest Nigeria. *IFE Psychologia: An International Journal*, 21(1), 245-259.
- Blum, R. W., Lai, J., Martinez, M., & Jessee, C. (2022). Adolescent connectedness: Cornerstone for health and wellbeing. *BMJ (Clinical research ed.)*, 379, e069213. <https://doi.org/10.1136/bmj-2021-069213>
- Caputo, A. (2017). Social desirability bias in self-reported wellbeing measures: Evidence from an online survey. *Universitas Psychologica*, 16(2). <https://doi.org/10.11144/Javeriana.upsy16-2.sdsww>
- Çınar-Tanrıverdi, E., & Karabacak-Çelik, A. (2023). Psychological need satisfaction and academic stress in college students: Mediator role of grit and academic self-efficacy. *European Journal of Psychology of Education*, 38(1), 131–160. <https://doi.org/10.1007/S10212-022-00658-1>
- Dahl, R. E., Allen, N. B., Wilbrecht, L., & Suleiman, A. B. (2018). Importance of investing in adolescence from a developmental science perspective. *Nature*. <https://doi.org/10.1038/nature25770>
- Dombo, D. O., & Awoyemi, A. E. (2016). Influence of parenting styles on psychological well-being and school adjustment of secondary school adolescents in Bayelsa State, Nigeria. *IFE Psychologia: An International Journal*, 24(2), 10-16.

- Fehr, B., & Harasymchuk, C. (2018). The role of friendships in wellbeing. In J. Maddux (Ed.), *Subjective Wellbeing and Life Satisfaction* (pp. 103-128). Routledge. <https://doi.org/10.4324/9781351231879-5>
- Feng, Q., & Cui, M. (2023). Indulgent parenting and the psychological well-being of adolescents and their parents. *Children*, 10(3). <https://doi.org/10.3390/children10030451>
- Gao, J., & McLellan, R. (2018). Using Ryff's scales of psychological well-being in adolescents in mainland China. *BMC Psychology*, 6(1). <https://doi.org/10.1186/s40359-018-0231-6>
- Guthold, R., Carvajal-Velez, L., Adebayo, E., Azzopardi, P., Baltag, V., Dastgiri, S., ... Requejo, J. (2023). The importance of mental health measurement to improve global adolescent health. *Journal of Adolescent Health*, 72(1), S3-S6. <https://doi.org/10.1016/j.jadohealth.2021.03.030>
- Hashmi, D. K., & Fayyaz, H. N. (2022). Adolescence and Academic Well-being: Parents, Teachers and Students' Perceptions. *Journal of Education and Educational Development*, 9(1). <https://doi.org/10.22555/joeed.v9i1.475>
- Horanicova, S., Husarova, D., Gecková, A. M., De Winter, A. F., & Reijneveld, S. A. (2022). School satisfaction and its associations with health and behavioural outcomes among 15-years old adolescents. *International journal of environmental research and public health*, 19(18), 11514. <https://doi.org/10.3390/ijerph191811514>
- Huebner, E. S. (1994). Preliminary development and validation of a multidimensional life satisfaction scale for children. *Psychological assessment*, 6(2), 149.
- Huebner, E. S., Zullig, K. J., & Saha, R. (2012). Factor structure and reliability of an abbreviated version of the Multidimensional Students' Life Satisfaction Scale. *Child Indicators Research*, 5(4), 651-657. <https://doi.org/10.1007/s12187-012-9140-z>
- Iram, F., Muhammad, W. N., & Hafiz, M. Z. R. (2021). Life satisfaction and psychological wellbeing among young adults. *World Journal of Advanced Research and Reviews*, 12(2), 365-371. <https://doi.org/10.30574/wjarr.2021.12.2.0599>
- Kamil, A. A., & AL-Hadrawi, H. H. (2022). Perceived self-efficacy and the psychological well-being of adolescents. *International Journal of Health Sciences*, 9447-9456. <https://doi.org/10.53730/ijhs.v6ns3.8843>
- Kang W. (2023). Understanding the associations between the number of close friends and life satisfaction: Considering age differences. *Frontiers in psychology*, 14, 1105771. <https://doi.org/10.3389/fpsyg.2023.1105771>
- Latkin, C. A., Edwards, C., Davey-Rothwell, M. A., & Tobin, K. E. (2017). The relationship between social desirability bias and self-reports of health, substance use, and social network factors among urban substance users in Baltimore, Maryland. *Addictive behaviors*, 73, 133-136. <https://doi.org/10.1016/j.addbeh.2017.05.005>

- Lukoševičiūtė-Barauskienė, J., Žemaitaitytė, M., Šūmakarienė, V., & Šmigelskas, K. (2023). Adolescent perception of mental health: It's not only about oneself, it's about others too. *Children*, 10(7). <https://doi.org/10.3390/children10071109>
- Malvaso, A., & Kang, W. (2022). The relationship between areas of life satisfaction, personality, and overall life satisfaction: An integrated account. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.894610>
- Mazzucato, V., Cebotari, V., Veale, A., White, A., Grassi, M., & Vivet, J. (2015). International parental migration and the psychological well-being of children in Ghana, Nigeria, and Angola. *Social Science & Medicine*, 132, 215-224.
- Mihić, J., Skinner, M., Novak, M., Ferić, M., & Kranželić, V. (2022). The importance of family and school protective factors in preventing the risk behaviours of youth. *International Journal of Environmental Research and Public Health*, 19(3). <https://doi.org/10.3390/ijerph19031630>
- Monika, Majeed, J., & Sharma, N. (2023). Psychological well-being of adolescents. *Journal for ReAttach Therapy and Developmental Diversities*, 6 (07s), 848-857 <https://doi.org/10.53555/jrtdd.v6i7s.2157>
- Okoïye, E. O., Anayochi, N. N., & Onah, T. A. (2015). Moderating effect of cyber bullying on the psychological well-being of in-school adolescents in Benin Edo State Nigeria. *European Journal of Sustainable Development*, 4(1), 109-109.
- Omreore, O. E., & Nwanzu, C. L. (2022). Examining the relationship among work-leisure conflict, coping self-efficacy, psychological flexibility and psychological wellbeing. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 16(2), 236-256.
- Orth, Z., & van Wyk, B. (2022). Rethinking mental wellness among adolescents: an integrative review protocol of mental health components. *Systematic Reviews*, 11(83). <https://doi.org/10.1186/s13643-022-01961-0>
- Özdemir, S. B., & Özdemir, M. (2019). How do adolescents' perceptions of relationships with teachers change during upper-secondary school years? *Journal of Youth and Adolescence*, 49(4), 921-935. <https://doi.org/10.1007/s10964-019-01155-3>
- Piko, B. F. (2023). Adolescent life satisfaction: Association with psychological, school-related, religious and socially supportive factors. *Children*, 10(7). <https://doi.org/10.3390/children10071176>
- Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. Guilford Press.
- Ryan, R. M., & Deci, E. L. (2023). Self-determination theory. In F. Maggino (Ed.), *Encyclopedia of quality of life and well-being research* (pp. 6229-6235). Springer International Publishing.
- Ryff C. D. (2014). Psychological well-being revisited: advances in the science and practice of eudaimonia. *Psychotherapy and psychosomatics*, 83(1), 10-28. <https://doi.org/10.1159/000353263>

- Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69(4), 719–727.
- Sagone, E., & Caroli, M. E. D. (2014). Relationships between psychological well-being and resilience in middle and late adolescents. *Procedia - Social and Behavioral Sciences*, 141, 881–887. <https://doi.org/10.1016/j.sbspro.2014.05.154>
- Solem, R. C. (2015). Limitation of a cross-sectional study. *American Journal of Orthodontics and Dentofacial Orthopedics*, 148(2). <https://doi.org/10.1016/j.ajodo.2015.05.006>
- Song, I., Kwon, J. W., & Jeon, S. M. (2023). The relative importance of friendship to happiness increases with age. *PloS one*, 18(7), e0288095. <https://doi.org/10.1371/journal.pone.0288095>
- Stavraki, M., García-Márquez, R., Bajo, M., Callejas-Albiñana, A. I., Paredes, B., & Díaz, D. (2022). Brief Version of the Ryff Psychological Well-Being Scales for Children and Adolescents: Evidence of Validity. *Psicothema*, 34(2), 316–322. <https://doi.org/10.7334/psicothema2021.235>
- Stevenson, C., Wakefield, J. R. H., Kellezi, B., Stack, R. J., & Dogra, S. (2022). Families as support and burden: A mixed methods exploration of the extent to which family identification and support predicts reductions in stress among disadvantaged neighbourhood residents. *Journal of Social and Personal Relationships*, 39(4), 886–907. <https://doi.org/10.1177/02654075211050071>
- Szczęśniak, M., & Tułeczka, M. (2020). Family functioning and life satisfaction: The mediatory role of emotional intelligence. *Psychology Research and Behavior Management*, 13, 223–232. <https://doi.org/10.2147/PRBM.S240898>
- Thomas, P. A., Liu, H., & Umberson, D. (2017). Family Relationships and Well-Being. *Innovation in aging*, 1(3), igx025. <https://doi.org/10.1093/geroni/igx025>
- Tomé, G., Matos, M., Simões, C., Diniz, J. A., & Camacho, I. (2012). How can peer group influence the behaviour of adolescents: Explanatory model. *Global journal of health science*, 4(2), 26–35. <https://doi.org/10.5539/gjhs.v4n2p26>
- Tosin, A. A., Oluwaseun, E. A. I., Adesola, A. O., Azeez, O. I., Felix, O. A., & Odunayo, A. F. (2022). Psychological well-being of adolescents in south western Nigeria: Its association with sociodemographic characteristics and perceived food insecurity. *Open Journal of Medical Psychology*, 11(2), 72-87.
- Viejo, C., Gómez-López, M., & Ortega-Ruiz, R. (2018). Adolescents' psychological well-being: A multidimensional measure. *International Journal of Environmental Research and Public Health*, 15(10). <https://doi.org/10.3390/ijerph15102325>
- Waigel, N. C., & Lemos, V. N. (2024). Life satisfaction and psychological well-being as predictors of flourishing during adolescence. *Psicogente*, 27(51). <https://doi.org/10.17081/psico.27.51.6452>