Published in final edited form as:

J Res Adolesc. 2024 March ; 34(1): 185–191. doi:10.1111/jora.12910.

Self-esteem and self-concept as correlates of life satisfaction and attitudes toward school among Ghanaian girls

Ozge Sensoy Bahar[1], **William Byansi**[2], **Portia Buernarkie Nartey**[1], **Abdallah Ibrahim**[3], **Alice Boateng**[4], **Kingsley Kumbelim**[5], **Proscovia Nabunya**[1], **Mary M. McKay**[6], **Fred M. Ssewamala**[1]

[1]Brown School, Washington University in St. Louis, St. Louis, Missouri, USA

[2]Boston College, School of Social Work, Chestnut Hill, Massachusetts, USA

[3]School of Public Health, University of Ghana Accra, Ghana

[4]Department of Social Work, University of Ghana, Accra, Ghana

[5]BasicNeeds Ghana, Accra, Ghana

[6]Vice Provost Office, Washington University in St. Louis, St. Louis, Missouri, USA

Abstract

During adolescence, youth experience several physical, psychosocial, and cognitive changes. Self-esteem and self-concept are identified as protective factors for adolescents in high-income countries, but studies are limited in sub-Saharan Africa. We examined the associations of self-esteem and self-concept with life satisfaction and attitudes toward school using baseline data from 97 Ghanaian adolescent girls at risk of school dropout. Ordinary Least Squares regression models were fitted to examine the association between self-esteem and self-concept on school attitudes and life satisfaction. Self-esteem was positively associated with life satisfaction. Self-concept was associated with more positive attitudes toward school. Hence, self-esteem and self-concept may be critical protective factors in promoting adolescent girls' life satisfaction and positive attitudes toward school.

Keywords

adolescent girls; Ghana; self-esteem

INTRODUCTION

Adolescence is a critical developmental stage during which youth undergo physical and cognitive changes as well as social and emotional development, including self-identity and self-esteem (Branje et al., 2021; Park et al., 2016; Sawyer et al., 2012). Self-esteem, defined as an overall negative or positive attitude toward the self (Rosenberg, 1965), is conceptualized as a protective factor contributing to better health and positive behavioral

Correspondence: Ozge Sensoy Bahar, Brown School, Washington University in St. Louis, One Brookings Drive, St. Louis, MO 63130, USA. ozge.sensoybahar@wustl.edu.

outcomes through its buffering role against the impact of negative influences (Mann et al., 2004). Negative views about oneself characterize individuals with low self-esteem. They are more likely to be avoidant to protect themselves from possible harm, whereas individuals with high self-esteem are more motivated to maintain and enhance self-esteem (Baumeister et al., 1989; Heimpel et al., 2006). In high-income countries, including European countries and the United States, low self-esteem during adolescence has been associated with several adverse outcomes, including depression (Masselink et al., 2018; Sowislo & Orth, 2013; Steiger et al., 2014), poor health, criminal behavior, and lower financial success in adulthood (Trzesniewski et al., 2006), and lower relationship and job satisfaction (Orth et al., 2012). Park et al. (2016) also found that self-esteem predicted better-perceived health status, higher satisfaction with peer relationships and school life, and higher academic grades among Korean youth (ages 13 to 15) from diverse socioeconomic backgrounds. In a study among Spanish youth (ages 14 to 18), self-esteem also correlated significantly and positively with adolescents' satisfaction with life (Rey et al., 2011).

On the other hand, self-concept is perceptions a person holds about themselves based on personal assessment and feedback from significant others, reinforcements, and attributions about one's behavior (Shavelson et al., 1976). Self-concept has been associated with adolescents' self-regulation of present and future behavior and wellbeing (Delgado et al., 2013), including satisfaction with life (Palacios et al., 2015), psychosocial adjustment in adolescence (Fuentes et al., 2011), emotional and behavioral problems (Gujar & Ali, 2019; Kuzucu et al., 2014; Masselink et al., 2018), and school achievement, engagement, and adjustment (Veiga et al., 2015; Wang & Fredricks, 2014) in high-income countries.

Sub-Saharan Africa (SSA) is home to 20% of all adolescents (10–19 years) globally and this proportion is expected to increase to 24% by 2030 (United Nations, 2019). While self-esteem and self-concept are documented as protective factors, research examining self-esteem and self-concept among adolescents in SSA is limited. For instance, a cross-sectional study examining the relationship between self-esteem and attitudes toward education among orphaned and nonorphaned adolescent secondary school girls from diverse socioeconomic backgrounds in Uganda found that nonorphaned girls had higher self-esteem than orphaned girls (Amongin et al., 2012). Higher self-esteem was associated with increased odds of condom use, decreased odds of adolescent marriage, age-disparate sex, and transactional sex among a sample of 919 adolescent refugee girls (13 to 19 years of age) in Ethiopia (Bermudez et al., 2019). Among a sample of 3064 male and female youth (12 to 19 years of age) living in extreme poverty in Kenya, Kabiru et al. (2014) observed a direct association between self-esteem and delinquency, with higher self-esteem associated with a lower likelihood of reporting delinquent behavior. In addition, the authors found that self-esteem was significantly protective in buffering the relationship between adverse life events and delinquency only for female adolescents. Finally, a study in Nigeria investigating the predictive roles of family structure, mental health, and self-esteem in dropout risk among 287 school-going adolescents from lower economic status found that all three variables were significantly associated with dropout risk (Lawrence & Adebowale, 2023).

Similarly, studies focused on self-concept in SSA are limited. A recent study of 1260 school-going adolescent girls (14 to 17 years) living in poverty in Uganda found that both

self-concept and self-esteem were negatively associated with depressive symptoms in the sample (Nabunya et al., 2020). In addition, younger adolescents (14 to 15 years) reported slightly higher self-concept and self-esteem scores than older adolescents (16 to 17 years), with the difference between the two age groups being statistically different for self-concept. Another study in Uganda conducted with 1410 adolescents orphaned by HIV (10 to 16 years) and living in poverty found that being older and female was associated with lower self-concept scores (Ssewamala et al., 2015). Additionally, family cohesion was positively associated with self-concept, whereas high levels of hopelessness and depressive symptoms were associated with a reduction in self-concept.

Although adolescence is generally a healthy period of life with positive growth, vulnerabilities (i.e., substance use, mental health, violent behaviors, and sexual risk-taking behaviors) associated with the emerging sense of independence increase adversity, especially for those in low-resource settings. Given the critical role of self-concept and self-esteem as protective factors and the scarcity of research in SSA, in this study, we examined the relationships between self-esteem and self-concept with life satisfaction and attitudes toward school among adolescent girls at risk of dropping out of school in rural Ghana. While some studies have focused on adversity among adolescent girls in SSA (Bermudez et al., 2019; Krugu et al., 2016), examining positive attributes of adolescent wellbeing is essential. Therefore, we focused on girls at risk of school dropout given that both self-esteem and self-concept have been associated with school achievement and engagement and that dropping out of school increases the risk of teenage parenthood (Grant & Hallman, 2008; Rosenberg et al., 2015), early marriage (Kalamar et al., 2016) and a range of adverse health outcomes (De Neve et al., 2015, 2020; Viner et al., 2017) among adolescents in SSA. We hypothesized that adolescent girls with higher self-esteem and self-concept would report higher scores of life satisfaction and more positive attitudes toward school.

METHODS

Baseline data from adolescent girls (n = 97) participating in the ANZANSI study (R21HD099508; 2019–2022) were analyzed for the study. Funded by the National Institute of Child Health and Human Development, this pilot randomized clinical trial aimed at addressing the risk of school dropout among adolescent girls, with the overall goal of reducing their likelihood of independent migration to the South for child labor (see study protocol for more details, Sensoy Bahar et al., 2020).

Study setting

The study was conducted in the northern region of Ghana, which is one of the three poorest regions in the country, with the highest incidence (81%) of multidimensional poverty index, highest rates (35%) of child labor, and lowest rates of school attendance in the country (Ghana Statistical Service, 2022; Molini & Paci, 2015; UN-Habitat, 2010). In this predominantly Muslim region, only 35% of the girls aged 6 years and older are classified as literate–as opposed to 66% at the national level (Ghana Statistical Service, 2022). Early marriage and polygamy are common, with 38% of women reporting that their partners had additional wives, compared to the national average of 14.0% (Ghana Statistical Service et

al., 2018). The language of instruction in the Ghanaian educational system is English, and an academic year comprises three terms.

Participants

The list of public junior high schools within the Tamale Metropolitan District with the highest rates of female student dropouts was compiled. Ten schools with the highest female student dropout rates and a 5 km distance from each other (to avoid contamination) were selected. Randomization for the clinical trial was done at the school level, with five schools assigned to the intervention arm and the other five to the control arm (see study protocol for more details, Sensoy Bahar et al., 2020). The study recruited 10 adolescent girls (and their caregivers) in each school.

The inclusion criteria for adolescent girls were: (1) enrolled in school and living within a family (defined broadly—not necessarily biological parents); (2) ages 11 to 14; (3) capable of giving assent; and (4) skipping school in the past academic term (with at least 10% of unexcused absences) (Sensoy Bahar et al., 2020). Due to their time constraints, three families withdrew before baseline data collection.

School administrators shared the study flyer introducing the project to the students and caregivers. All caregivers with an eligible child/ren were encouraged to contact the school for details. The study team then organized meetings with families in each of the selected schools to present the study and answer questions. The research team then met with potential participants to engage them in the screening and informed consent process. Adolescent girls were contacted for assent only after the study team received consent to contact them from their caregivers. Written informed consent and assent were obtained from caregivers and adolescents, respectively.

Measures

The complete assessment battery was administered in English and comprised of self-report scales. The scales used in this study have been tested in the sub-Saharan African context, including in Ghana. The following measures were used to measure the independent variables.

Self-esteem—Self-esteem was measured using the Rosenberg Self-Esteem Scale (RSES) (Rosenberg, 1965). The RSES is one of the most widely used measures of self-esteem (Sinclair et al., 2010), which has been used broadly across different cultural contexts with high internal consistency, including in Ghana (α = 0.83–0.85) (Ahulu et al., 2020; Glozah, 2014) and translated into over 28 languages (Schmitt & Allik, 2005). The RSES is a 10-item scale consisting of 10 statements about general feelings of self-worth or self-acceptance rated on a 4-point Likert scale response option, ranging from strongly agree to strongly disagree, with 4 = strongly agree, 3 = agree, 2 = disagree, 1 = strongly disagree. The 10 statements assess a person's overall perception of their worth as a human being (Rosenberg, 1965). The items were coded, summed, and scored on a theoretical range of 10–40, with higher scores representing higher self-esteem (Cronbach's alpha = 0.78 in our sample).

Tennessee self-concept—Self-concept was measured using the Tennessee Self-Concept Scale (TSCS) (Fitts & Warren, 1997). We used the 20-item short version of the original 100-item scale of the TSCS to assess adolescents' perception of self-identity and self-satisfaction (Fitts & Warren, 1997). The short version has been previously used in Uganda with high internal consistency (α = 0.83; Nabunya et al., 2020). The items are rated on a 5-point Likert scale ranging from 1 = always false, to 5 = always true. Items in the opposite direction were reverse-coded to create summated scores. The theoretical range for the TSCS was 20–100, with higher scores representing a more positive self-concept (Cronbach's alpha = 0.79 in our sample).

In addition, the models controlled for participant's age (12–14 years), family assets, number of people in the household, and participant's primary caregiver. Participants' family assets were measured using a 21-item scale asking participants to answer a *yes* or *no* to questions about whether their families owned assets, including *land, house, rental property, gardens, or farm animals*. The items were coded and summed, with higher scores indicating household asset ownership.

To measure the dependent variables, the following measures were used.

Life satisfaction—Life satisfaction was measured using the Multidimensional Student Life Satisfaction Scale (MSLSS), used in prior research in Ghana (α = 069; Wilson, 2015). The MSLSS is a 40-item scale assessing life satisfaction on 5 specific aspects while maintaining an overall life satisfaction score (Huebner et al., 1998). The 5 specific aspects of life satisfaction in MSLSS are family (7-item, = 0.94), friends (9-item, = 0.72), school (8-item, = 0.59), living environment (9-item, = 0.68), and self (7-item, = 0.77). Responses are rated on a 6-point Likert scale with 1 = strongly disagree, 2 = moderately disagree, 3 = slightly disagree, 4 = slightly agree, 5 = moderately agree, and 6 = strongly agree (range 40–240). The total score was summed up and used in the analysis, with the higher values representing higher satisfaction in student life (Cronbach's alpha = 0.87 in our sample).

Attitudes toward school—Attitudes toward school were assessed using the school attitude assessment survey (SAAS; McCoach, 2002). The survey consists of 20 items rated on a 5-point Likert scale (1 = not at all, 2 = a little bit, 3 = pretty well, 4 = well, and 5 = very well; range 20 to 100). The scale measures aspects of students' lives that predict their academic achievement, including peer attitudes, attitudes toward school, self-motivation, and self-regulation. The items were coded and summed, with the higher values representing higher positive attitudes toward school (Cronbach's alpha = 0.92).

Analytical approach

Univariate statistics were generated to describe overall sample characteristics and itemized descriptions of psychological wellbeing. Ordinary Least Squares (OLS) regression models were fit to examine the association between self-esteem and self-concept on school attitude and multidimensional student life satisfaction among adolescent girls at a high risk of dropping out of school. Beta coefficients and 95% confidence intervals (CI) of the predictor effects were derived. Statistical significance was set at a p-value <.05 level. Correlation among the independent variables was assessed for multicollinearity. As none

of the correlations was >.40, multicollinearity was not considered a problem. We created scatter plots for both dependent and independent variables. In these plots, we included a linear fit along with a lowess line to visually assess linearity. The examination revealed that each independent variable had a linear relationship with its respective dependent variable. In addition, we assessed the normal distribution of both continuous outcome residuals by generating standardized residuals following each regression model. Subsequently, we visually examined both a histogram of the standardized residuals overlaid with a normal curve and a scatterplot depicting standardized residuals against predicted values. We also examined the Q–Q plots and observed very minor violations of the curve. The OLS models are robust to handle such minor violations. We also ran the Breusch-Pagan and Cook Weisberg test for the life satisfaction ($p = .51$) and school attitude ($p = 09$) models, indicating no strong evidence of heteroskedasticity. All analyses were conducted in Stata Version 17.

RESULTS

Descriptive statistics

Participants' sociodemographics, self-esteem, and self-concept are presented in Table 1. On average, participants were aged 13 years (SD = 0.58) and lived in large households with about 14 (SD = 7.96) members. In addition, more than three-quarters (84%) of adolescent girls reported living with biological parents. Overall, participants reported high levels of self-esteem ($M = 32.68$, SD = 4.17). In addition, the high scores in TSCS indicated positive self-concept ($M = 80.7$, SD = 8.87).

Self-esteem, self-concept, life satisfaction, and school attitude among adolescent girls

Results from regression analysis examining the association of self-esteem and self-concept on school attitude and multidimensional student life satisfaction are presented in Table 2. For the multidimensional student life satisfaction outcome, after controlling for other factors, self-esteem ($b = 1.42$, 95% CI = 0.71, 2.14, $p \leq .001$) was associated with increased life satisfaction. Self-concept was not significantly associated with life satisfaction. Overall, the model explained 19% of the variance in life satisfaction. In a univariate model, approximately 15% of the variance in life satisfaction can be attributed to self-esteem (R-squared = .1509). Regarding attitudes toward school, for each unit increase in self-concept, there was a corresponding increase of 0.54 units in the school attitude score ($b = 0.54$, 95% CI = 0.32, 0.76, $p \leq .001$). In model two, when considering all factors together, they collectively explained 25% of the variance in attitudes toward school. However, in a univariate model, self-concept as a single predictor accounted for approximately 21% (R-squared = .2078) of the variance in attitudes toward school.

DISCUSSION

This study utilized baseline data to examine self-esteem and self-concept as correlates of life satisfaction and school attitude among adolescent girls at high risk of school dropout in northern Ghana. Our findings contribute to the limited literature on the protective role of self-esteem and self-concept in adolescent girls' psychosocial wellbeing and satisfaction

with school life among this high-risk group in sub-Saharan Africa, given their implications for adolescents' wellbeing both in the short and long term. Overall, participants in the sample reported high levels of self-esteem and positive self-concept, which provides a strong base for many positive developmental and health outcomes (Birkeland et al., 2012; Boden et al., 2008) in adolescence.

We found that self-esteem was positively associated with life satisfaction encompassing five areas of adolescent girls' lives: family, friends, school, living environment, and self. Previous studies in high-income countries have also shown that self-esteem is positively associated with life satisfaction in adolescent samples (Boden et al., 2008; de la Barrera et al., 2019; Proctor et al., 2017). Life satisfaction is a critical construct in relation to other emotional, social, and behavioral outcomes (Proctor et al., 2017) and the study results suggest that self-esteem plays an important role in the overall life satisfaction of adolescent girls vulnerable to school dropout in a rural region of Ghana. Self-esteem has been explored in relation to other psychosocial and health outcomes in sub-Saharan Africa (Bermudez et al., 2019; Kabiru et al., 2014). Hence, the study findings expand the existing evidence on self-esteem as a protective factor among youth on the continent.

In our study, self-concept was positively associated with attitudes toward school. A positive attitude toward school is critical as education, especially for female adolescents in low-resource settings in sub-Saharan Africa, is documented to delay marriage, increase their chances to enter the paid labor market, and improve their and their children's health outcomes when they become mothers (e.g., lower infant mortality and better nutrition) (Shabaya & Konadu-Agyemang, 2004). Our results are similar to other studies conducted in high-income countries that showed a positive association between self-concept and school achievement, engagement, and adjustment (Veiga et al., 2015; Wang & Fredricks, 2014). Given the lack of studies on the relationship between self-concept and school-related outcomes in sub-Saharan Africa, the study results are an important first step to understanding the role of self-concept as a protective factor for school outcomes for adolescent girls at risk of dropping out of school in Ghana.

The results should be considered in light of study limitations. The study used cross-sectional data. Hence, longitudinal research investigating the reciprocal and dynamic relations between self-esteem and self-concept as correlates of life satisfaction and attitudes toward school is needed to investigate the causality of the results. Additionally, future research should use larger samples to further determine the role of self-esteem and self-concept as predictors of these two outcomes. All outcomes were self-reported and may be impacted by social desirability. Finally, the study was conducted with a small sample size in the Northern region of Ghana, a region with higher rates of poverty and migration of adolescent girls. Hence, the results may not be generalizable to adolescent girls in other parts of the country. Ultimately, our findings highlight the need for research examining individual and familiar attributes that promote and sustain the positive wellbeing of adolescents in low-resource settings.

CONCLUSION

Despite these limitations, our study findings contribute to the limited literature on the protective role of self-esteem and self-concept among adolescent girls in low-resource settings in Ghana. We found that self-esteem was positively associated with life satisfaction and higher self-concept scores were correlated with more positive attitudes toward school. Future research should examine the causal relationships between these psychosocial domains. Results from our study and future research may inform the development of prevention programs aimed at improving self-esteem and self-concept as protective factors in adolescent girls' lives in low-resource settings in Ghana and sub-Saharan Africa.

ACKNOWLEDGMENTS

We are grateful to the adolescent girls and their caregivers who participated in this study as well as the schools that agreed to collaborate with us; this work could not be possible without them. Special thanks to our implementing partners Basic Needs Ghana and Joe Osei at BIBIR Ghana. Lastly, we thank the research teams at Washington University in St. Louis and University of Ghana.

Funding information

Eunice Kennedy Shriver National Institute of Child Health and Human Development, Grant/Award Number: R21HD099508

REFERENCES

Ahulu LD, Gyasi-Gyamerah AA, & Anum A (2020). Predicting risk and protective factors of generalized anxiety disorder: A comparative study among adolescents in Ghana. International Journal of Adolescence and Youth, 25(1), 574–584.

Amongin HC, Oonyu JC, Baguma PK, & Kitara DL (2012). Self-esteem and attitudes of girls orphaned to HIV/AIDS toward education in Kampala, Uganda. Prevalence, 15, 49.

Baumeister RF, Hutton DG, & Tice DM (1989). Cognitive processes during deliberate self-presentation: How self-presenters alter and misinterpret the behavior of their interaction partners. Journal of Experimental Social Psychology, 25(1), 59–78.

Bermudez LG, Yu G, Lu L, Falb K, Eoomkham J, Abdella G, & Stark L (2019). HIV risk among displaced adolescent girls in Ethiopia: The role of gender attitudes and self-esteem. Prevention Science, 20(1), 137–146. [PubMed: 29767281]

Birkeland MS, Melkevik O, Holsen I, & Wold B (2012). Trajectories of global self-esteem development during adolescence. Journal of Adolescence, 35, 43–54. [PubMed: 21764114]

Boden JM, Fergusson DM, & Horwood LJ (2008). Does adolescent self-esteem predict later life outcomes? A test of the causal role of self-esteem. Development and Psychopathology, 20(1), 319–339. [PubMed: 18211740]

Branje S, De Moor EL, Spitzer J, & Becht AI (2021). Dynamics of identity development in adolescence: A decade in review. Journal of Research on Adolescence, 31(4), 908–927. [PubMed: 34820948]

de la Barrera U, Schoeps K, Gil-Gómez JA, & Montoya-Castilla I (2019). Predicting adolescent adjustment and well-being: The interplay between socio-emotional and personal factors. International Journal of Environmental Research and Public Health, 16(23), 4650. [PubMed: 31766641]

De Neve JW, Fink G, Subramanian SV, Moyo S, & Bor J (2015). Length of secondary schooling and risk of HIV infection in Botswana: Evidence from a natural experiment. The Lancet Global Health, 3(8), e470–e477. [PubMed: 26134875]

de Neve JW, Karlsson O, Canavan CR, Chukwu A, Adu-Afarwuah S, Bukenya J, Darling AM, Harling G, Moshabela M, Killewo J, Fink G, Fawzi WW, & Berhane Y (2020). Are out-of-school

adolescents at higher risk of adverse health outcomes? Evidence from 9 diverse settings in sub-Saharan Africa. Tropical Medicine & International Health, 25(1), 70–80. [PubMed: 31692194]

Delgado B, Ingles CJ, & García-Fern andez JM (2013). Ansiedad social y autoconcepto en la adolescencia [Social anxiety and self-concept in adolescence]. Revista de Psicodidactica, 18(1), 179–195.

Fitts WH, & Warren WL (1997). Tennessee self-concept scale, TSCS 2. Manual (2nd ed.). Western Psychological Services.

Fuentes MC, García JF, Gracia E, & Lila M (2011). Autoconcepto y ajuste psicosocial en la adolescencia [Self-concept and psychosocial adjustment in adolescence]. Psicothema, 23(1), 7–12. [PubMed: 21266135]

Ghana Statistical Service. (2022). Ghana 2021 Population and Housing Census Volume 3: General Report Highlights. https://census2021.statsghana.gov.gh/gssmain/fileUpload/reportthemelist/Volume%203%20Highlights.pdf

Ghana Statistical Service (GSS), Ghana Health Service (GHS), & ICF. (2018). Ghana maternal health survey 2017. GSS, GHS, and ICF.

Glozah FN (2014). Exploring the role of self-esteem and parenting patterns on alcohol use and abuse among adolescents. Health Psychology Research, 2(3), 1898. [PubMed: 26973951]

Grant MJ, & Hallman KK (2008). Pregnancy-related school dropout and prior school performance in KwaZulu-Natal, South Africa. Studies in Family Planning, 39(4), 369–382. [PubMed: 19248721]

Gujar NM, & Ali A (2019). Effects of psychological capital and self-esteem on emotional and behavioral problems among adolescents. Journal of Mental Health and Human Behaviour, 24(2), 85.

Heimpel SA, Elliot AJ, & Wood JV (2006). Basic personality dispositions, self-esteem, and personal goals: An approach-avoidance analysis. Journal of Personality, 74(5), 1293–1320. [PubMed: 16958703]

Huebner ES, Laughlin JE, Ash C, & Gilman R (1998). Further validation of the multidimensional students' life satisfaction scale. Journal of Psychoeducational Assessment, 16(2), 118–134.

Kabiru CW, Elung'ata P, Mojola SA, & Beguy D (2014). Adverse life events and delinquent behavior among Kenyan adolescents: A cross-sectional study on the protective role of parental monitoring, religiosity, and self-esteem. Child and Adolescent Psychiatry and Mental Health, 8(1), 1–11. [PubMed: 24444351]

Kalamar AM, Lee-Rife S, & Hindin MJ (2016). Interventions to prevent child marriage among young people in low-and middle-income countries: A systematic review of the published and gray literature. Journal of Adolescent Health, 59(3), S16–S21.

Krugu JK, Mevissen FEF, Prinsen A, & Ruiter RA (2016). Who's that girl? A qualitative analysis of adolescent girls' views on factors associated with teenage pregnancies in Bolgatanga, Ghana. Reproductive Health, 13(1), 1–12. [PubMed: 26728505]

Kuzucu Y, Bontempo DE, Hofer SM, Stallings MC, & Piccinin AM (2014). Developmental change and time-specific variation in global and specific aspects of self-concept in adolescence and association with depressive symptoms. Journal of Early Adolescence, 34(5), 638–666. 10.1177/0272431613507498 [PubMed: 25143664]

Lawrence KC, & Adebowale TA (2023). Adolescence dropout risk predictors: Family structure, mental health, and self-esteem. Journal of Community Psychology, 51(1), 120–136. 10.1002/jcop.22884 [PubMed: 35615901]

Mann M, Hosman CM, Schaalma HP, & de Vries NK (2004). Self-esteem in a broad-spectrum approach for mental health promotion. Health Education Research, 19(4), 357–372. 10.1093/her/cyg041 [PubMed: 15199011]

Masselink M, Van Roekel E, & Oldehinkel AJ (2018). Self-esteem in early adolescence as predictor of depressive symptoms in late adolescence and early adulthood: The mediating role of motivational and social factors. Journal of Youth and Adolescence, 47(5), 932–946. 10.1007/s10964-017-0727-z [PubMed: 28785953]

McCoach DB (2002). A validation study of the school attitude assessment survey. Measurement and Evaluation in Counseling and Development, 35, 66–77.

Molini V, & Paci P (2015). Poverty reduction in Ghana: Progress and challenges. World Bank. https://openknowledge.worldbank.org/handle/10986/22733

Nabunya P, Damulira C, Byansi W, Muwanga J, Bahar OS, Namuwonge F, & Ssewamala FM (2020). Prevalence and correlates of depressive symptoms among high school adolescent girls in southern Uganda. BMC Public Health, 20(1), 1–11. [PubMed: 31898494]

Orth U, Robins RW, & Widaman KF (2012). Life-span development of self-esteem and its effects on important life outcomes. Journal of Personality and Social Psychology, 102(6), 1271–1288. 10.1037/a0025558 [PubMed: 21942279]

Palacios EG, Echaniz IE, Fernández AR, & de Barrón ICO (2015). Personal self-concept and satisfaction with life in adolescence, youth, and adulthood. Psicothema, 27(1), 52–58. [PubMed: 25633770]

Park J, Kim YH, Park SJ, Suh S, & Lee HJ (2016). The relationship between self-esteem and overall health behaviors in Korean adolescents. Health Psychology and Behavioral Medicine, 4(1), 175–185.

Proctor C, Linley PA, & Maltby J (2017). Life satisfaction. Encyclopedia of Adolescence, 2(1), s2165–s2176.

Rosenberg M. (1965). Society and the adolescent self-image. Princeton University Press.

Rey L, Extremera N, & Pena M (2011). Perceived emotional intelligence, self-esteem and life satisfaction in adolescents. Psychosocial Intervention, 20(2), 227–234.

Rosenberg M, Pettifor A, Miller WC, Thirumurthy H, Emch M, Afolabi SA, Kahn K, Collinson M, & Tollman S (2015). Relationship between school dropout and teen pregnancy among rural south African young women. International Journal of Epidemiology, 44(3), 928–936. 10.1093/ije/dyv007 [PubMed: 25716986]

Sawyer SM, Afifi RA, Bearinger LH, Blakemore SJ, Dick B, Ezeh AC, & Patton GC (2012). Adolescence: A foundation for future health. The Lancet, 379(9826), 1630–1640.

Schmitt DP, & Allik J (2005). Simultaneous administration of the Rosenberg self-esteem scale in 53 nations: Exploring the universal and culture-specific features of global self-esteem. Journal of Personality and Social Psychology, 89, 623–642. 10.1037/0022-3514.89.4.623 [PubMed: 16287423]

Sensoy Bahar O, Ssewamala FM, Ibrahim A, Boateng A, Nabunya P, Neilands TB, & McKay MM (2020). Anzansi family program: A study protocol for a combination intervention addressing developmental and health outcomes for adolescent girls at risk of unaccompanied migration. Pilot and Feasibility Studies, 6, 1–12. [PubMed: 31921434]

Shabaya J, & Konadu-Agyemang K (2004). Unequal access, unequal participation: Some spatial and socio-economic dimensions of the gender gap in education in Africa with special reference to Ghana, Zimbabwe and Kenya. Compare: A Journal of Comparative and International Education, 34(4), 395–424.

Shavelson RJ, Hubner JJ, & Stanton GC (1976). Self-concept: Validation of construct interpretations. Review of Educational Research, 46(3), 407–441. 10.3102/00346543046003407

Sinclair SJ, Blais MA, Gansler DA, Sandberg E, Bistis K, & LoCicero A (2010). Psychometric properties of the Rosenberg self-esteem scale: Overall and across demographic groups living within the United States. Evaluation & the Health Professions, 33(1), 56–80. 10.1177/0163278709356187 [PubMed: 20164106]

Sowislo JF, & Orth U (2013). Does low self-esteem predict depression and anxiety? A meta-analysis of longitudinal studies. Psychological Bulletin, 139(1), 213–240. 10.1037/a0028931 [PubMed: 22730921]

Ssewamala FM, Nabunya P, Ilic V, Mukasa MN, & Damulira C (2015). Relationship between family economic resources, psychosocial well-being, and educational preferences of AIDS-orphaned children in southern Uganda: Baseline findings. Global Social Welfare, 2(2), 75–86. [PubMed: 26146601]

Steiger AE, Allemand M, Robins RW, & Fend HA (2014). Low and decreasing self-esteem during adolescence predict adult depression two decades later. Journal of Personality and Social Psychology, 106(2), 325–338. 10.1037/a0035133 [PubMed: 24467425]

Trzesniewski KH, Donnellan MB, Moffitt TE, Robins RW, Poulton R, & Caspi A (2006). Low self-esteem during adolescence predicts poor health, criminal behavior, and limited economic prospects during adulthood. Developmental Psychology, 42(2), 381–390. 10.1037/0012-1649.42.2.381 [PubMed: 16569175]

UN Habitat. (2010). Ghana: Tamale City Profile. https://unhabitat.org/ghana-tamale-urban-profile#:~:text=Tamale%20is%20the%20fourth%20largest,have%20migrated%20into%20the%20city

United Nations, Department of Economics and Social Affairs. (2019). World population prospects. https://population.un.org/wpp/Download/Standard/Interpolated/

Veiga FH, García F, Reeve J, Wentzel K, & García O (2015). When adolescents with high self-concept lose their engagement in school. Revista de Psicodidáctica, 20, 305–320. 10.1387/RevPsicodidact.12671

Viner RM, Hargreaves DS, Ward J, Bonell C, Mokdad AH, & Patton G (2017). The health benefits of secondary education in adolescents and young adults: An international analysis in 186 low-, middle-and high-income countries from 1990 to 2013. SSM-Population Health, 3, 162–171. [PubMed: 29302611]

Wang MT, & Fredricks JA (2014). The reciprocal links between school engagement, youth problem behaviors, and school dropout during adolescence. Child Development, 85(2), 722–737. [PubMed: 23895361]

Wilson A. (2015). An exploration of aspects of mental health in school-going adolescents in Ghana. Doctoral dissertation submitted to the University of Stellenbosch.

TABLE 1

Characteristics of study participants at baseline ($N = 97$).

Baseline characteristics	***n* (%) or mean (SD)**
Age [min/max 12–14], mean (SD)	13.69 (0.58)
Number of people in the household [min/max 3–29], mean (SD)	14.80 (7.96)
Assets [range 2–20], mean (SD)	8.15 (3.22)
Primary Caregiver (*N*/%)	
Biological parents	81 (84%)
Other relatives	16 (16%)
Orphanhood status	
Orphan	14 (14%)
Nonorphan	83 (86%)
Multidimensional student life satisfaction scale [min/max 40–240], mean (SD)	188.20 (15.46)
School attitude scale [min/max 20–100], mean (SD)	86.07 (10.07)
Self-esteem scale [min/max 10–40], mean (SD)	32.68 (4.17)
Tennessee self-concept [min/max 20–100], mean (SD)	80.7 (8.87)

TABLE 2

Regression analyses on self-esteem and self-concept.

Variables	Coefficients[a]	SE	95% CI LL	95% CI UL	*p*	Coefficients[b]	SE	95% CI LL	95% CI UL	*p*
Self-esteem	1.42	0.36	0.71	2.14	<.001	0.04	0.23	−0.41	0.49	.87
Self-concept	0.01	0.18	−0.35	0.36	.97	0.54	0.11	0.32	0.76	<.001
Age	1.49	2.62	−3.72	6.70	.57	2.28	1.64	−0.99	5.54	.17
Number of people in the household	−0.07	0.20	−0.47	0.33	.73	0.001	0.13	−0.25	0.25	.99
Assets	−0.21	0.49	−0.76	1.17	.67	−0.11	0.30	−0.71	0.50	.72
Primary Caregiver (ref: other relatives)										
Biological parents	8.86	4.82	−0.72	18.44	.07	1.37	3.02	−4.62	7.37	.65
Orphanhood status (ref: orphan)										
Nonorphan	−6.87	5.15	−17.11	3.38	.19	−5.26	3.23	−11.68	1.15	.12
Adjusted R^2	.19					.25				

Note. Total $N = 97$.

Abbreviations: CI, confidence interval; LL, lower limit; UL, upper limit.

[a]Multidimensional student life satisfaction.

[b]School attitude.