

Effectiveness of self- efficacy training skills on adolescents' sexual risk- taking behavior in Oyo state, Nigeria

Musa Titilayo Monsurat (PhD), Musa-Olomu A. Adewale (Phd, FWACS)

Educational Foundations and Counselling Department, Olabisi Onabanjo University, Ago-iwoye, Ogun-State, Nigeria.

*E-mail: musa.titilayo@oouago-iwoye.edu.ng.com, titilayo1423@yahoo.com,

ORCID ID: 0000-0003-1496-7223

Federal Medical Centre, Idi-Aba, Abeokuta. Ogun State, Nigeria. E-mail: alwajud1423@gmail.com

ORCID ID: 0000-0003-4582-7215

Abstract

Particularly in Nigeria, parents, educators, and social workers are becoming increasingly concerned about adolescents' sexually risky behavior. In addition to analyzing the moderating effects of gender and socioeconomic position, this study looked into how self-efficacy training affected teenagers' sexual risk-taking behaviors. With 80 senior secondary school students, ages 14 to 19, from public schools in Oyo State, Nigeria, participating, a pre-test, post-test, randomized quasi-experimental design was used. These students were divided into experimental and control groups at random, and the experimental group was given self-efficacy training for eight weeks. The Adolescent Sexual Behavior Inventory was used to gather data, and Analysis of Covariance (ANCOVA) was used to evaluate the results. The findings showed that therapy, gender, and socioeconomic level had no discernible effects on taking risks with sexual behaviors. Likewise, there were no discernible interaction effects between gender, socioeconomic level, and treatment. The results imply that without addressing more extensive sociocultural factors, self-efficacy training might not be enough to reduce dangerous behaviors. In order to successfully lower teenagers' sexual risk-taking behaviors, the study suggests incorporating digital literacy, parental participation, and comprehensive sex education into intervention programs. To solve these issues, more research is advised to examine comprehensive and situation-specific approaches.

Keywords: Adolescents' sexual risk-taking behaviour, Self-efficacy training, Gender, socio-economic status

Introduction

Parents, educators, and social workers around the world are becoming concerned about adolescents' sexual risk-taking behaviors (Smith et al., 2020). Many people view adolescence as a crucial and psychologically taxing time, marked by a range of distinctive behaviors (World Health Organization [WHO], 2019). This stage of life, which is characterized by major physical, emotional, and social changes, is a transitional time between childhood and maturity. Since adolescence is a distinct stage in each person's life, it can be both

thrilling and difficult (United Nations International Children's Emergency Fund [UNICEF], 2021).

Adolescents go through significant physical, mental, and social changes over the frequently turbulent 10–19 age range (Jones & Brayboy, 2018). Research indicates that in order to successfully navigate their developmental stages, teenagers need accurate and age-appropriate education, knowledge, and a supportive environment (United Nations Population Fund [UNFPA], 2020). This stage of life is frequently compared to "walking a tightrope," and it is characterized by feelings of uncertainty, anxiety, and identity exploration (Kirkpatrick & Davis, 2019).

Additionally, adolescence is a time of reproductive maturity and developmental milestones that may encourage risky behaviors including unprotected sexual engagement and sexual exploration. Teenagers who engage in these actions run the danger of contracting STIs and becoming pregnant without their will (Finer & Zolna, 2020). For instance, studies conducted in Nigeria show that a large number of teenagers start having sex by the time they are 18, underscoring the importance of providing adequate sexual health education (Olasupo et al., 2022).

Adolescence is a critical time in the world for preparing youth for adult responsibilities. This period is linked to a number of changes, such as those in living arrangements, work, and schooling (Sulaiman & Adewale, 2021). It takes knowledge from the fields of psychology, sociology, biology, and anthropology to fully comprehend adolescence. Together, these viewpoints highlight adolescence as a crucial developmental and cultural stage of life (Adejumo & Aluko, 2021).

A sizable section of the world's population is made up of adolescents. More than 1.2 billion people roughly one in six people are teenagers, and their numbers are still rising, according to recent figures (UNICEF, 2021). Although some researchers expand this range to include young people up to 24 years old, the World Health Organization (2020) defines adolescents as individuals between the ages of 10 and 19 (Patton et al., 2021). Despite their increasing numbers, many teenagers struggle to get access to resources that will prepare them for adulthood, such as high-quality healthcare and education (Yusuf et al., 2022).

Teenagers' need for acceptance and identity, particularly among their peers, frequently shapes their behaviors and way of life. Their views on risk-taking, education, and health can be influenced by the interaction of peer pressure and the need for originality (Adekunle & Johnson, 2019). Adolescent health and well-being are becoming increasingly important on a global scale, with an emphasis on providing youth with the tools, information, and

abilities needed for responsible adulthood (UNFPA, 2020).

According to recent data, a sizable percentage of teenagers are at danger of participating in harmful lifestyle choices, such as unsafe sexual activity. For instance, according to predictions from the World Health Organization (WHO, 2021), about 25% of teenagers globally run the danger of embracing practices that could have a detrimental effect on their social and physical well-being. Such behaviors have serious repercussions for both people and society at large, including the possibility of unemployment and academic failure (UNICEF, 2020). Because of its long-term societal ramifications, risky sexual activity among teenagers continues to be a significant topic that has drawn the attention of academics in psychology, sociology, and education (Pettifor et al., 2018).

Numerous factors have been found by researchers to influence the behavior and lifestyle choices of adolescents. These elements include personal difficulties like behavioral problems or cognitive impairments as well as more general social impacts like parenting practices, financial difficulties, and cultural differences, claim Johnson and Roberts (2019). In response, UNESCO (2022) has underlined the necessity of thorough sexuality education in schools in order to empower teenagers with awareness of the repercussions of their behavior and encourage responsible decision-making.

Behavior is significantly shaped by self-efficacy, which is the conviction in one's own ability to control and carry out the actions required to accomplish particular objectives. This idea, which has its roots in Bandura's (1997) work, is still applicable to study today. Schunk and DiBenedetto (2020) assert that self-efficacy affects how people view obstacles, control their emotions, and stay motivated. High self-efficacy adolescents are less likely to give in to peer pressure or risky activities and are more likely to exhibit adaptive behaviors. Additionally, self-efficacy and self-esteem are linked. Self-esteem is the assessment of one's own

value and potential. Fostering adolescents' self-efficacy and self-esteem is essential for assisting them in navigating the challenges of puberty, particularly in reducing risky behaviors, as Walker et al. (2021) describe.

Self-efficacy is a dynamic process that is impacted by cognitive skills, abilities, and attitudes. It influences how a person views their surroundings and how they react to difficulties. These beliefs affect mental wellness and physical health outcomes, according to Morris et al. (2019), since individuals with higher levels of confidence in oneself are more likely to choose activities that support their health. Adolescents can have a greater sense of control over their life by establishing reasonable goals and taking concrete actions.

Additionally, adolescence is a crucial time for the formation of sexual identity and orientation. During this phase, a person's pattern of romantic or sexual attraction to other people changes, which is known as their sexual orientation (Russell & Fish, 2019). During this period, many teenagers start to investigate and comprehend their sexual identities; some may publicly proclaim their orientation, while others may feel confused or in denial. According to research, LGBTQ+ adolescents' well-being is greatly impacted by supportive surroundings and societal acceptance (Kosciw et al., 2020).

In light of these findings, this study examines the impact of self-worth workshops on adolescents' sexually hazardous behaviors, with a focus on empowering youth in Oyo State, Nigeria, to adopt healthier and more acceptable lifestyles.

Objectives of the study

The study's primary goal was to investigate how well self-efficacy training affected the sexual risk-taking behaviors of teenage students in a subset of public high schools in Oyo State, Nigeria. The study also looked at how teenagers' attitudes regarding sexually risky behaviors are moderated by gender and parental socioeconomic level.

Statement of the problem

Compared to their predecessors, adolescents have access to sexual and graphic content far sooner. Teens and young adults have experimented with sexual behavior in order to see the things they see on social networking sites, print media, and digital media. This is particularly true for getting online through portable devices, videos, CDs, newspapers and magazines, cable networks, and movies.

Regretfully, individuals frequently engage in or put themselves in danger rather than taking the required measures.

Recent globalization and technological improvements have revolutionized the ways that teens engage in gangsterism, drug abuse or misuse, nightclubbing, multiple sex interactions, and inappropriate clothing. Therefore, this study aims to improve teenagers' sexually risky behavior by behavioral training of self-efficacy abilities.

Hypotheses

1. Treatment self-efficacy training has no discernible primary impact on teenagers' sexual risk-taking behavior.
2. Teenagers' sexual risk-taking behavior is not significantly influenced by their gender.

Study Scope

This study was restricted to the use of environmental-based interventions (the parents gender and socioeconomic status) and behavioral modification techniques (self-efficacy training). SS1 students from three local authority councils were used to choose the sample from among a group of teenage pupils registered in senior secondary schools that are public in Oyo State, Nigeria.

With Ogun, Kwara, and Osun as its neighbors, Oyo State is one of the biggest of Nigeria's 36 states.

According to estimates from the State Agency for Control of HIV/AIDS, the overall prevalence of HIV was 3.0% in 2012, with higher rates of 4.3% in select regions. Without a doubt, the majority of Nigerians are very aware about HIV. In Oyo State, only 5.8% of

male and 8.8% of female youths between the ages of 15 and 24 underwent testing and received results (DHS, 2008).

Research Design

With a pre-test, post-test, and control group, the study employed a quasi-experimental design with a 3 x 2 x 2 factorial matrix. Because the factorial design completes what could otherwise need two or more inquiries in a single trial, the researcher decided to employ it.

Study Population

All 324 public senior high schools in Oyo State, Nigeria, that employ SS1 students were participants in the study. These schools typically have over 25,000 senior high school pupils enrolled (20450).

Sample and Sampling Techniques

Eighty randomly chosen SS1 students from various public secondary schools spread across all three Senatorial Districts of Oyo State, Nigeria, made up the study's sample.

A straightforward random sample technique was used to choose the participants. The Teenage Sexual Behavior Inventory was administered to every SS1 student in the three chosen schools. However, the tool was used to filter out students and adolescents who were at risk of sexually harmful behaviors and those who tended to participate in sexual practices. Thus, an entire pool of eighty (80) children were selected as participants after considering the pre-test outcomes from each school. Individuals who scored higher than average were chosen because they were thought to have a propensity for or history of sexually risky behavior. Then, using a straightforward random sample procedure, the individuals were divided into the two treatment groups and the control group at random. In the experimental groups, participants were assigned to low and high parental socioeconomic level based on the results of pre-tests on the Adolescent Sexual Behavior Inventory.

Research Instrumentation

In this study, a standardized inventory called the "Adolescent Sexual Behavior Inventory" was employed. In 2002, Falaye developed the updated instrument. According to the author and a number of other researchers, such as Aremu (2008) and Osiki (2007), the instrument was appropriate for the similar sample group. The instrument was used to collect data on sexual risk-taking behavior, the dependent variable.

Validation and Reliability of the ASBI Instrument

The original scale's Sections III and IV were modified for this investigation. Fifty randomly chosen SS1 students from two senior secondary schools in Ogun State's Ijebu North East Local Government Area were used to calculate the sections' test-retest reliability coefficient. The study's sample did not include this Local Government Area Council.

Reliability coefficients for sections III and IV of the study were 0.86 and 0.79, respectively, when the instrument was administered to the same group of respondents who were representative of the population after the second week of the original administration.

A second sample of fifty students from the Abeokuta North Regional Council Area was selected in order to validate the instrument. Sections III and IV of the instruments were merged with the Adolescent Sexual Activity Index (ASAI), developed by Hansen, Pasketti, and Carter (1992), and the Sexuality Knowledge and Attitude Test for Adolescents (SKAT-A), developed by Fullard and Scheier (2005), to form a battery. Pearson Moment correlation was used to identify relationships between the study and the tests such as ASBI ($r = 0.67$), ASAI ($r = 0.72$), and SKAT-A ($r = 0.63$).

Method of data analysis

The technique of Covariance (ANCOVA) statistical technique was used to examine the gathered data. The pre-test and post-test were correlated as covariates using ANCOVA, which was also used to correct for the initial difference between the

experimental groups on the pre-test. Every hypothesis in this investigation was examined at alpha levels of 0.05.

General Description of Data

Eighty high school seniors from public schools in Oyo State participated in this study. Following random selection, participants were divided into

two groups and given eight weeks of self-efficacy training: the group participating in the experiment (self-efficacy training) and a control group.

Descriptive statistics of the data on teens' sexual risk-taking behavior by the control group, gender, and socioeconomic background of parents are shown in Table 1.

Table 1: Characteristics of Posttest Sexual Risk-Taking Behavior in Adolescents by Gender, Parental Socioeconomic Status, and Experimental Group

Treatment Group	Parental socio-economic status	Gender	Mean	Std. Dev.	N
Self-efficacy Training Group	High	Male	59.3750	10.94059	8
		Female	66.5000	11.27893	22
		Total	64.6000	11.45787	30
	Low	Male	54.0000	.	1
		Female	70.1111	18.45565	9
		Total	68.5000	18.13070	10
	Total	Male	58.7778	10.38963	9
		Female	67.5484	13.51503	31
Control Group	High	Male	60.6667	22.81082	3
		Female	59.0000	17.14194	14
		Total	59.2941	17.44192	17
	Low	Male	65.5714	14.96002	14
		Female	55.4444	22.59486	9
		Total	61.6087	18.53189	23
	Total	Male	64.7059	15.83021	17
		Female	57.6087	19.03762	23
Total	High	Male	62.9048	12.12396	11
		Female	64.1607	13.32636	36
		Total	63.8182	12.94292	47
	Low	Male	66.2500	14.42540	15
		Female	62.4348	20.32872	18
		Total	64.2093	17.72885	33
	Total	Male	64.5366	13.23650	26
		Female	63.6582	15.56944	54
	Total	Male	63.9583	14.76334	80

The results in Table 1 show that the average sexual risk-taking behavior of teenagers was 63.958 with a standard deviation of 14.763. Nonetheless, the self-efficacy training group's members ($n = 40$) demonstrated a mean score of 65.575 and a standard deviation of 13.282 for teenage sexual risk-taking behavior. In the control group, the 40

participants had a mean of 60.625 and a standard deviation of 17.885.

The average score for sexually explicit risk-taking behavior was 63.818 with a standard deviation of 12.943 among people ($n = 77$) with high parental socioeconomic status. The average risk-taking behavior score for adolescents ($n = 43$) with low

parental socioeconomic status was 64.209, with a standard deviation of 17.729 for this group.

Male participants ($n = 26$) had an average sexual risk-taking behavior score of 64.537 with a standard deviation of 13.237, while female participants ($n = 54$) had an average score of 63.658 with a standard

deviation of 15.569.

Testing Hypotheses

Hypothesis 1

Teenagers' sexual risk-taking behavior is not significantly impacted by treatment (self-efficacy training).

Table 2: Presents the results of tests examining the cross-subject effects of medication, parental socioeconomic status, and gender on adolescents' sexual risk-taking behavior.

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	2695.617 ^a	12	224.635	1.034	.423
Intercept	11069.045	1	11069.045	50.961	.000
Pretest	531.006	1	531.006	2.445	.121
Treatgroup	497.657	2	248.829	1.146	.322
Ses	.181	1	.181	.001	.977
Gender	.673	1	.673	.003	.956
treatgroup * ses	4.846	2	2.423	.011	.989
treatgroup * gender	565.682	2	282.841	1.302	.276
ses * gender	25.395	1	25.395	.117	.733
treatgroup * ses * gender	133.920	2	66.960	.308	.735
Error	23241.175	107	217.207		
Total	516817.000	120			
Corrected Total	25936.792	119			

a R Squared = .124 (Adjusted R Squared = .025)

Table 2 shows that neither treatment ($F(2,107) = 1.146$; $p > 0.05$), parent socioeconomic status ($F(1,107) = .001$; $p > 0.05$), nor gender ($F(1,107) = .003$; $p > 0.05$) substantially influenced adolescents' sexual risk-taking behavior. Furthermore, treatment and sexual orientation ($F(2,107) = 1.302$; $p > 0.05$), parental socioeconomic status and treatment ($F(1,107) = .117$; $p > 0.05$), or treatment

and the parents socioeconomic status ($F(2,107) = .011$; $p > 0.05$) did not significantly interact with one another on adolescents' sexual risk-taking behavior.

The three-way relation between medication, parental socioeconomic status, and gender ($F(2,107) = .308$; $p > 0.05$) and the sexual risk-taking behavior of teenagers was also not significant.

Table 3: shows the estimated effects of treatment on adolescents' sexual risk-taking behavior.

Treatment group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Self-efficacy training Group	62.707 ^a	4.173	54.434	70.980
Self-control training Group	66.081 ^a	2.736	60.656	71.506
Control Group	60.144 ^a	2.824	54.546	65.741

A The following values are used to evaluate covariates that occur in the model: 66.7000 is the pretest value.

Table 3 shows that the mean score for participants in the confidence in oneself training group was 62.707 with a standard error of 4.173. The self-control training group's mean score was 66.081,

with a standard error of 2.736. Furthermore, the mean score of the participants of the control group was 60.144, with a standard error of 2.824. The results of the study done to see if there was a significant difference between these mean scores are shown in Table 4.

Table 4: Univariate Test of Treatment Effects on Adolescents' Sexual Risk-Taking Behavior.

	Sum of Squares	Df	Mean Square	F	Sig.
Contrast	497.657	2	248.829	1.146	.322
Error	23241.175	107	217.207		

The F tests the effect of Treatment Group. This test is based on the linearly independent pair wise comparisons among the estimated marginal means.

Table 4 showed that teenagers' sexual risk-taking behavior was not significantly impacted by the treatment (self-efficacy training) ($F(2,107) = 1.146$; $p > 0.05$). This result essentially supported the null

hypothesis. This finding implies that there would be no difference in the sexual risk-taking behavior of adolescents based on the treatment they received.

Hypothesis 2

There is no significant main effect of gender on sexual risk-taking behaviour of adolescents.

Table 5: Estimates of Gender on Sexual Risk-Taking Behaviour of Adolescents

Gender	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Male	62.871 ^a	3.323	56.283	69.459
Female	63.083 ^a	1.889	59.340	66.827

A The following values are used to evaluate covariates that occur in the model: 66.7000 is the pretest value.

In terms of sexual risk-taking behavior as adolescents, the mean score for male participants was 62.871 with an average standard error of 3.323, while the average score

for female participants equaled 63.083 with a standard error of 1.889, as shown in Table 5. To determine whether there was a substantial variance between these mean scores, an analysis of covariance was used. Table 6 presents the results.

Table 6: Univariate Test of Gender on Sexual Risk-Taking Behaviour of Adolescents

	Sum of Squares	Df	Mean Square	F	Sig.
Contrast	.673	1	.673	.003	.956
Error	23241.175	107	217.207		

The influence of gender is tested using the F. The linearly uncorrelated pairwise comparisons

between the computed marginal means serve as the foundation for this test.

According to Table 6, there was no discernible difference in the impact of gender on teens' sexual risk-taking behavior ($F(1,107) = .003$; $p > 0.05$). The null hypothesis, which states that gender has no appreciable primary influence on teens' sexual risk-taking behavior, was accepted in this study. This result suggests that there won't be any appreciable variations between male and female participants' sexual risk-taking behaviors.

Discussion of Findings

The results showed that the respondents in the self-efficacy instruction group had a little higher mean score for sexual risk-taking behavior (65.575 vs. 60.625) than those in the control group. These findings suggest that self-efficacy training may not be enough to significantly alter teens' sexual behaviors if other environmental factors are not addressed. This observation is corroborated by recent research, which emphasizes the limitations of behavioral therapies when socio-environmental factors like peer pressure and exposure to digital media are not sufficiently addressed (UNICEF, 2022; Magnani et al., 2021).

Self-efficacy training may not have produced quantifiable behavioral changes over the study period, as seen by the lack of a significant main effect of treatment on sexual risk-taking behaviors ($F(2,107) = 1.146$; $p > 0.05$). This is consistent with the findings of Kirby and Laris (2019), who highlighted that although self-efficacy training increases adolescents' self-assurance in their ability to make decisions, it would not immediately lower risk behaviors in the absence of supplementary treatments like peer-led education programs or parental participation. Furthermore, Bandura (1997) pointed out that self-efficacy functions in a larger sociocultural framework and that external elements like social norms and economic standing frequently affect its efficacy.

The mean sexual risk-taking scores of participants with high socioeconomic level (SES) were somewhat lower than those of participants with

low SES (63.818 vs. 64.209). $F(1,107) = .001$; $p > 0.05$, however, indicated that this difference was not statistically significant. Magnani et al. (2021) have documented similar results, noting that adolescents from higher SES families are less likely to engage in dangerous activities because they have better access to health knowledge and resources. On the other hand, teenagers from poorer socioeconomic backgrounds frequently encounter structural obstacles, like restricted access to healthcare and counseling, which heightens their propensity for taking risks.

With mean scores of 62.871 for men and 63.083 for women, the study indicated no significant difference in sexual risk-taking behavior between male and female participants ($F(1,107) = 0.003$; $p > 0.05$). This finding runs counter to previous research showing that men are more prone to risky sexual activity (Kimani, 2020). But according to recent studies, the gap between male and female teenagers' sexual practices is closing due to changing gender norms and easier access to internet content (UNICEF, 2022; Olapegba et al., 2021).

The lack of significant interaction effects between gender, SES, and treatment ($F(2,107) = 0.308$; $p > 0.05$) indicates that these factors affect teenage behavior on their own. This is consistent with the findings of Ajuwon (2020), who contended that multivariable treatments that address parental involvement, peer impact, and socioeconomic disparities are more successful than single-variable methods in lowering risky behaviors.

The intricacy of teenage sexual activities and the necessity of comprehensive therapies are highlighted by these findings. Self-efficacy training is beneficial, but if it ignores more significant sociocultural and economic factors, its effects can be restricted. To get greater long-lasting results, recent research suggests integrating behavioral training with peer-led projects, digital literacy programs, and parental participation (WHO, 2022; Magnani et al., 2021).

Conclusion

This study highlights the need for more thorough therapies by showing that self-efficacy training by itself did not significantly lower teenagers' sexual risk-taking behaviors. The lack of significant effects from factors like gender and socioeconomic position suggests that peer dynamics and digital media are important contextual factors.

A comprehensive strategy that incorporates peer-led initiatives, digital literacy, parental involvement, and behavioral training is necessary to address these issues. These results emphasize the value of comprehensive approaches to encourage adolescents to make healthy decisions.

Recommendations

- 1) Government should develop and implement policies that promote adolescent health, particularly through access to counseling, healthcare services, and comprehensive sex education programs.
- 2) The Government should also fund awareness campaigns targeting the dangers of risky sexual behaviors among adolescents.
- 3) School management should integrate digital literacy and comprehensive sex education into school curricula to address the influence of online content on adolescent behaviors.
- 4) School management should organize workshops and seminars to educate students on the importance of self-efficacy and decision-making skills.
- 5) Parent should actively engage in educating adolescents about the risks associated with early sexual activity and the importance of responsible behavior.
- 6) Parent should monitor their children's internet use to reduce exposure to explicit content and ensure a safe online environment.
- 7) Researchers should conduct further studies to explore innovative methods for reducing risky sexual behaviors among adolescents in various socio-cultural contexts.

References

- Adejumo, O., & Aluko, T. (2021). Adolescence as a developmental and cultural stage: An interdisciplinary perspective. *Journal of Developmental Psychology*, 15(3), 45–60.
- Adekunle, A., & Johnson, T.** (2019). Peer influence and adolescent lifestyle choices: The interplay between conformity and individuality. *Journal of Youth Studies*, 22(4), 512–529. <https://doi.org/10.1080/13676261.2019.1623912>
- Ajuwon, A. J. (2013). Adolescence: The excitement, complexities, and challenges. University of Ibadan Press. ISBN: 978-978-8456-19-3.
- Ajuwon, A. J. (2020). Multivariable treatments and their effectiveness in reducing risky behaviors among adolescents. *Journal of Adolescent Health and Development*, 15(4), 231–245.
- Bandura, A. (1997). Self-efficacy: The exercise of control. New York: W. H. Freeman.
- Esere, M. O. (2006). HIV/AIDS awareness of in-school adolescents in Nigeria: Implications for adolescent sexuality. *Journal of Psychology in Africa*, 16(2), 255–258.
- Finer, L. B., & Zolna, M. R. (2020). Declines in unintended pregnancy in the United States: New estimates and current trends. *New England Journal of Medicine*, 374(9), 843–852.
- Johnson, M., & Roberts, L.** (2019). Sociocultural and personal determinants of adolescent decision-making: A comprehensive review. *Adolescent Research Review*, 4(1), 25–37.
- Jones, V., & Brayboy, L. M. (2018). Adolescent transitions and identity development. *Journal of Adolescent Studies*, 13(4), 345–360.
- Kimani, J. M. (2020). Gender differences in adolescent sexual risk-taking behaviors in sub-

- Saharan Africa. *African Journal of Reproductive Health*, 24(3), 101–115.
- Kirby, D., & Laris, B. A. (2019). Effectiveness of self-efficacy training in adolescent sexual behavior interventions: The role of supplemental treatments. *Journal of Health and Social Behavior*, 60(2), 245–260.
- Kirkpatrick, D., & Davis, S. (2019). Adolescent development in a digital age. *Educational Psychology Quarterly*, 12(1), 87–98.
- Kosciw, J. G., Clark, C. M., Truong, N. L., & Zongrone, A. D. (2020). The 2019 National School Climate Survey. GLSEN.
- Magnani, R. J., Karim, A. M., MacIntyre, K., Brown, L., & Hutchinson, P. (2021). The impact of life skills education on adolescent sexual risk behaviors. Population Council.
- Morris, D., Carter, S., & Bennett, L. (2019). Exploring self-efficacy in adolescent health behaviors. *Global Health Perspectives*, 14(2), 89–97.
- Olapegba, P. O., Idemudia, E. S., & Onuoha, U. C. (2021). Gender differences in responsible sexual behavior of in-school adolescents. *African Journal of Psychology*, 19(2), 131–144.
- Olasupo, A., Adebayo, T., & Ogunlade, J. (2022). Sexual behaviors and health education among Nigerian adolescents. *African Journal of Public Health*, 19(4), 356–368.
- Pajares, F., & Schunk, D. H. (2019). Self-belief and academic success: Exploring self-efficacy in adolescent education. *Journal of Personality and Social Psychology*, 58(3), 586–598.
- Patton, G. C., Sawyer, S. M., Santelli, J. S., Ross, D. A., Afifi, R., Allen, N. B., & Viner, R. M.** (2021). Our future: A Lancet commission on adolescent health and wellbeing. *The Lancet*, 387(10036), 2423–2478.
- Pettifor, A., Nguyen, N. L., Celum, C., Cowan, F. M., Go, V., & Hightow-Weidman, L. (2018). Tailored behavioral interventions for adolescents: Global challenges and insights. *The Lancet*, 16(3), 78–86.
- Russell, S. T., & Fish, J. N. (2019). Sexual minority youth and health disparities: The role of family and societal acceptance. *Annual Review of Public Health*, 40, 439–455.
- Schunk, D. H., & DiBenedetto, M. K. (2020). Motivation and self-regulation among adolescents. *Educational Psychology Review*, 32(1), 89–100.
- Smith, J., Brown, P., & Nguyen, M. (2020). Global perspectives on adolescent sexual risk-taking behaviors. *Journal of International Studies in Health*, 28(3), 221–237.
- Sulaiman, A., & Adewale, J. (2021). Socioeconomic factors influencing adolescent risky behaviors in Nigeria. *Nigerian Journal of Development Studies*, 8(1), 45–61.
- UNESCO.** (2022). *International technical guidance on sexuality education: An evidence-informed approach for schools, teachers, and health educators*. United Nations Educational, Scientific and Cultural Organization.
- UNFPA.** (2020). *State of the world population 2020: Defying the odds, supporting adolescents' well-being*. United Nations Population Fund.
- UNICEF.** (2020). *The state of the world's children 2020: Children, food, and nutrition – Growing well in a changing world*. United Nations Children's Fund.
- UNICEF. (2021). Digital connectivity and adolescent health: Challenges and strategies. Retrieved from <https://www.unicef.org>
- UNICEF. (2022). Adolescent health in the digital age: Challenges and strategies. Retrieved from <https://www.unicef.org>
- United Nations International Children's Emergency Fund [UNICEF]. (2021). Adolescence: A time of change and opportunity. *UNICEF Report*, 12(1), 1–14.
- United Nations Population Fund [UNFPA]. (2020). Providing comprehensive sexuality education: Supporting adolescents through their developmental stages. *UNFPA Annual Review*, 22(1), 5–18.
- Walker, C., Wilson, D., & Adams, L. (2021). Exploring self-esteem and self-efficacy in adolescent health education. *Journal of Adolescent Development*, 22(3), 301–318.
- Walker, D. A., Zhang, C., & Surya, M.** (2021). Self-esteem and self-efficacy in adolescence: Implications for healthy development. *Journal of School Psychology*, 85, 45–58.

World Health Organization (WHO). (2022). Adolescents and sexual and reproductive health. Retrieved from <https://www.who.int>

World Health Organization [WHO]. (2019). Adolescents: The critical developmental years. *WHO Bulletin*, 97(4), 256–270.

World Health Organization. (2020). *Adolescent health and development: Definitions and approaches*. Geneva: WHO Press.

World Health Organization. (2021). *Global status report on adolescent health 2021*. Geneva: WHO Press.

Yusuf, A. A., Oluwaseun, F. T., & Ogundipe, T. O. (2022). Barriers to adolescent access to healthcare services in sub-Saharan Africa. *African Journal of Health Studies*, 14(2), 78–89.