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Outcomes of sexual abuse on self-esteem among adolescents: A systematic review

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- Abstract
 - Author keywords
 - Topics of prominence
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Abstract

The burden of sexual abuse remains a global reality and it is known to affect adolescents' psycho-social well-being. The current study aimed at determining the unanimity findings on the relationship between sexual abuse and self-esteem among adolescents as well as the concomitant determinants of self-esteem among sexually abused adolescents. To achieve this, a systematic search of PubMed, Science Direct, Cochrane, African Journals Online (AJOL) and Google Scholar was conducted to identify studies that focused on the outcomes of sexual abuse on the self-esteem of adolescents. Based on this, a simple synthesis of basic findings of the selected studies was conducted. A total of 7,278 studies were identified out of which only eight studies from Africa, Asia, Europe and North America met the selection criteria. With three research questions guiding the study, findings reveal that sexual abuse is prevalent among the study participants. It also revealed an inverse relationship between sexual abuse and self-esteem among the adolescents. Furthermore, three categories of co-

determinants of self-esteem among sexually abused adolescents were observed namely socio-demographic determinants; parental and family determinants as well as nature of abuse. The overriding deduction from these studies is that sexual abuse impacts negatively on the self-esteem of adolescents. These findings have implications for Sustainable Development Goals. Since this study has established that sexual abuse impacts negatively on the self-esteem of adolescents, drivers of SGD 3 should, among other things, intensify campaigns against adolescents' sexual abuse and make psychological intervention by counselling psychologists, available to victims. © 2020 The Author(s). This open access article is distributed under a Creative Commons Attribution (CC-BY) 4.0 license.

Author keywords

adolescent; relationship; self-esteem; sexual abuse; systematic review
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Abayomi, A.A.

- 1 Sociological implication of domestic violence on children's development in Nigeria (2014) *Journal of African Studies and Development*, 6 (1), pp. 8-16. [Cited 5 times](#). <https://doi.org/10.5897/JASD2013.0237>

(2003) *Research facts and figures; adolescent self-esteem*

- 2 <https://www.human.cornell.edu/actforyouth>

Adeosun, I.

- 3 Adolescents' disclosure of sexual violence victimization in Nigeria: Prevalence, barriers and mental health i (2015) *International Neuropsychiatric Disease Journal*, 4 (4), pp. 153-160. [Cited 2 times](#). <https://doi.org/10.9734/INDJ/2015/19291>

Adigeb, P.A., Mbua, P.A.

- 4 Child abuse and students' academic performance in Boki local government area of cross river state (2015) *British Journal of Education*, 3 (3), pp. 34-42.

- Agarwal, A.K.
5 Man is a social animal
 (2019) *Legal language and business communication*
 Palgrave Maximillian,. In: A.K. Agarwal and Anurag K. (eds)

- Akin-odanye, E.O.
6 Prevalence and management of child sexual abuse cases presented at Nigerian hospitals: A systematic review
 (2018) *Journal of Health and Social Sciences*, 3 (2), pp. 109-124. [Cited 2 times](#).

- Ali, S., Ali, S.
7 Child sexual abuse leads to psychological disorders: Literature review
 (2014) *El Midnifico Journal*, 2 (4), pp. 431-443.

- (2002) *Developing adolescents: A reference for professionals*. [Cited 143 times](#).
8 American Psychological Society

- Bankole, E.T., Arowosegbe, C.K.
9 Effect of child abuse on self-esteem among secondary school students in Ekiti State (case study of Iworo
 (2014) *International Journal of Humanities and Social Sciences and Education*, 1 (12), pp. 133-140. [Cited 3](#)

- Barth, J., Bermetz, L., Heim, E., Trelle, S., Tonia, T.
10 [The current prevalence of child sexual abuse worldwide: A systematic review and meta-analysis](#) (Open Access)
 (2013) *International Journal of Public Health*, 58 (3), pp. 469-483. [Cited 359 times](#).
<http://www.springerlink.com/content/1661-8564/>
 doi: 10.1007/s00038-012-0426-1

[View at Publisher](#)

- Bachman, J.G., O'Malley, P.M., Freedman-Doan, P., Trzesniewski, K.H., Donnellan, M.B.
11 [Adolescent Self-esteem: Differences by Race/Ethnicity, Gender, and Age](#) (Open Access)

(2011) *Self and Identity*, 10 (4), pp. 445-473. [Cited 66 times](#).
doi: 10.1080/15298861003794538

[View at Publisher](#)

- Birgisdóttir, I.
12 Effect of sexual abuse on self- esteem among adolescents: The impact of gender, parental support and type of abuse
(2015) *A published B.Sc thesis*. [Cited 3 times](#).
<https://skemman.is/bitstream/1946/23796/1/BSc.thesis.iris.hildur.birgisdottir.pdf>

- Bleidorn, W., Arslan, R.C., Denissen, J.J.A., Rentfrow, P.J., Gebauer, J.E., Potter, J., Gosling, S.D.
13 [Age and gender differences in self-esteem—A cross-cultural window](#). (Open Access)

(2016) *Journal of Personality and Social Psychology*, 111 (3), pp. 396-410. [Cited 199 times](#).
<http://www.apa.org/pubs/journals/psp/>
doi: 10.1037/pspp0000078

[View at Publisher](#)

- Brooker, C., Tocque, K.
14 [Mental health risk factors in sexual assault: What should Sexual Assault Referral Centre staff be aware of?](#)

(2016) *Journal of Forensic and Legal Medicine*, 40, pp. 28-33. [Cited 12 times](#).
<http://www.elsevier.com>
doi: 10.1016/j.jflm.2016.01.028

[View at Publisher](#)

- Browne, A., Finkelhor, D.
15 [Impact of Child Sexual Abuse. A Review of the Research](#) (Open Access)

(1986) *Psychological Bulletin*, 99 (1), pp. 66-77. [Cited 1903 times](#).
doi: 10.1037/0033-2909.99.1.66

[View at Publisher](#)

- Bunting, L., Davidson, G., McCartan, C., Hanratty, J., Bywaters, P., Mason, W., Steils, N.
16 [The association between child maltreatment and adult poverty – A systematic review of longitudinal research](#)

(2018) *Child Abuse and Neglect*, 77, pp. 121-133. [Cited 17 times](#).
www.elsevier.com/locate/chiabuneg
doi: 10.1016/j.chiabu.2017.12.022

[View at Publisher](#)

- Chinawa, J.M., Obu, H.A., Manyike, P.C., Obi, I.E., Israel, O.O., Chinawa, A.T.
17 Self- esteem among adolescents in Nigerian secondary schools: A neglected issue
(2015) *British Journal of Medicine and Medical Research*, 5 (1), pp. 98-106. [Cited 6 times](#).
<https://doi.org/10.9734/BJMMR/2015/12492>

- Conte, J.R.
18 [Child sexual abuse: awareness and backlash.](#)

(1994) *The Future of children / Center for the Future of Children, the David and Lucile Packard Foundation*
232. [Cited 20 times](#).
doi: 10.2307/1602532

[View at Publisher](#)

- David, N., Ezechi, O., Wapmuk, A., Gbajabiamila, T., Ohihoin, A., Herbertson, E., Odeyemi, K.
19 [Child sexual abuse and disclosure in south western nigeria: A community based study](#) (Open Access)

(2018) *African Health Sciences*, 18 (2), pp. 199-208. [Cited 4 times](#).
<https://www.ajol.info/index.php/ahs/article/download/173560/162994>
doi: 10.4314/ahs.v18i2.2

[View at Publisher](#)

- Dobrescu, A.
20 Adolescent self-esteem. Bulletin of the Transilvania University of Brasov, series VII: Social sciences
(2013) *Law*, 6 (55), pp. 139-144. [Cited 2 times](#).

- DuBois, D.L., Hirsch, B.J.
21 [Self-esteem in early adolescence: From stock character to marquee attraction](#)

(2000) *Journal of Early Adolescence*, 20 (1), pp. 5-11. [Cited 21 times](#).
doi: 10.1177/0272431600020001001

[View at Publisher](#)

- Feiring, C., Cleland, C.M., Simon, V.A.
22 [Abuse-specific self-schemas and self-functioning: A prospective study of sexually abused youth](#) (Open Acco

(2010) *Journal of Clinical Child and Adolescent Psychology*, 39 (1), pp. 35-50. [Cited 26 times.](#)
doi: 10.1080/15374410903401112

[View at Publisher](#)

- Finkelhor, D.
23 [The international epidemiology of child sexual abuse](#)

(1994) *Child Abuse and Neglect*, 18 (5), pp. 409-417. [Cited 682 times.](#)
doi: 10.1016/0145-2134(94)90026-4

[View at Publisher](#)

- Finkelhor, D., Araji, S., Baron, L., Browne, A., Peters, S., Wyatt, G.
24 (1986) *A sourcebook on child sexual abuse.* [Cited 731 times.](#)
Sage Publications

- Finkelhor, D., Browne, A.
25 [The traumatic impact of child sexual abuse: a conceptualization.](#)

(1985) *The American journal of orthopsychiatry*, 55 (4), pp. 530-541. [Cited 1169 times.](#)
doi: 10.1111/j.1939-0025.1985.tb02703.x

[View at Publisher](#)

- Foster, J.M., Hagedorn, W.B.
26 [Through the eyes of the wounded: A narrative analysis of childrens sexual abuse experiences and recovery p](#)

(2014) *Journal of Child Sexual Abuse*, 23 (5), pp. 538-557. [Cited 33 times.](#)
<http://www.tandfonline.com/toc/wcsa20/current>
doi: 10.1080/10538712.2014.918072

[View at Publisher](#)

- Geldard, K., Geldard, D.
27 (2010) *Counselling adolescents.* [Cited 43 times.](#)
Sage Publications

- Gesinde, A.M.
28 [The impact of seven dimensions of emotional maltreatment on self concept of school adolescents in Ota, Ni](#)

(2011) *Procedia - Social and Behavioral Sciences*, 30, pp. 2680-2686. [Cited 3 times](#).
doi: 10.1016/j.sbspro.2011.12.001

[View at Publisher](#)

- Gesinde, A.M.
29 [Challenges in Meeting HIV/AIDS Counselling Needs in Nigeria](#)

(2012) *International Journal for the Advancement of Counselling*, 34 (4), pp. 297-306.
www.kluweronline.com/issn/0165-0653/current
doi: 10.1007/s10447-012-9158-4

[View at Publisher](#)

- Gesinde, A.M.
30 (2018) *Psychological virus undermining children and adolescents' development: The antiviral in counselling times*.
<http://eprints.covenantuniversity.edu.ng/10238/#.XOGnONgo-00>

- Grose, R.G., Chen, J.S., Roof, K.A., Rachel, S., Yount, K.M.
31 [Sexual and Reproductive Health Outcomes of Violence Against Women and Girls in Lower-Income Countries: A Systematic Review](#) (Open Access)

(2021) *Journal of Sex Research*, 58 (1), pp. 1-20. [Cited 11 times](#).
<http://www.tandfonline.com/loi/hjsr20>
doi: 10.1080/00224499.2019.1707466

[View at Publisher](#)

- Henriques, J., Shivakumara, K.
32 Self-esteem and psychological distress among sexually abused and sexually non-abused adolescents
(2015) *International Journal of Science and Research*, 4 (5), pp. 3105-3108.

- Jacob, J., Ravindranadan, V.
33 Impact of sexual abuse on self-esteem and psychological well-being of adolescent girls
(2017) *International Journal of Indian Psychology*, 5 (1), pp. 187-192.
<https://doi.org/10.25215/0501.120>

- Karakus, O.
34 Relation between childhood abuse and self-esteem in adolescence
(2012) *Journal of Human Sciences*, 9 (2), pp. 753-763. [Cited 9 times](#).
- Kelly, M., Millar, M.
35 Exploring adolescence and parenthood: A transitional life stage and abrupt life change
(2017) *Journal of Community and Public Health Nursing*, 3, p. 162.
<https://doi.org/10.4172/24571-9846.1000162>
- Kim, B.-N., Park, S., Park, M.-H.
36 [The relationship of sexual abuse with self-esteem, depression, and problematic internet use in Korean adolescents](#)
(2017) *Psychiatry Investigation*, 14 (3), pp. 372-375. [Cited 10 times](#).
<http://www.psychiatryinvestigation.org/html/pdfdown.asp?pn=0502017050>
doi: 10.4306/pi.2017.14.3.372
- [View at Publisher](#)
- Kohn, A.
37 The truth about self-esteem
(1994) *Phi Delta Kappan*, 76, pp. 272-283. [Cited 39 times](#).
- Lalor, K., McElvaney, R.
38 Overview of the nature and extent of child sexual abuse in Europe
(2005) *Council of Europe, 'protecting children from sexual violence - A comprehensive approach'*
Council of Europe, &. In
<https://arrow.tudublin.ie/aaschsslbk>
- Lamoureux, B.E., Palmieri, P.A., Jackson, A.P., Hobfoll, S.E.
39 [Child sexual abuse and adulthood-interpersonal outcomes: Examining pathways for intervention](#) (Open Access)
(2012) *Psychological Trauma: Theory, Research, Practice, and Policy*, 4 (6), pp. 605-613. [Cited 41 times](#).
doi: 10.1037/a0026079

[View at Publisher](#)

Latzman, N.E., Casanueva, C., Dolan, M.
40 (2017) *Understanding the scope of child sexual abuse: Challenges and opportunities*. [Cited 4 times](#).
RTI International
<https://doi.org/10.3768/rtipress.2017.op.0044.1711>

Meinck, F., Cluver, L.D., Boyes, M.E., Loening-Voysey, H.
41 [Physical, emotional and sexual adolescent abuse victimisation in South Africa: Prevalence, incidence, perpetration and risk factors](#) (Open Access)

(2016) *Journal of Epidemiology and Community Health*, 70 (9), pp. 910-916. [Cited 56 times](#).
<http://jech.bmj.com/content/70/9/910.full.pdf>
doi: 10.1136/jech-2015-205860

[View at Publisher](#)

Moksnes, U.K., Espnes, G.A.
42 [Self-esteem and life satisfaction in adolescents-gender and age as potential moderators](#)

(2013) *Quality of Life Research*, 22 (10), pp. 2921-2928. [Cited 130 times](#).
doi: 10.1007/s11136-013-0427-4

[View at Publisher](#)

Muntean, A.
43 (2006) *Psychology of human development*
Polirom Publishing House

Mustaine, E.E., Tewksbury, R., Huff-Corzine, L., Corzine, J., Marshall, H.
44 [Community characteristics and child sexual assault: Social disorganization and age](#)

(2014) *Journal of Criminal Justice*, 42 (2), pp. 173-183. [Cited 18 times](#).
doi: 10.1016/j.jcrimjus.2013.06.016

[View at Publisher](#)

Mutavi, T., Obondo, A., Mathai, M., Kokonya, D., Dako-Gyeke, M.
45 [Incidence of Self-Esteem Among Children Exposed to Sexual Abuse in Kenya](#)

(2018) *Global Social Welfare*, 5 (1), pp. 39-47. [Cited 5 times](#).
<https://link.springer.com/journal/volumesAndIssues/40609>
doi: 10.1007/s40609-017-0107-3

[View at Publisher](#)

- Nigussie, B.
46 Child sexual abuse and its devastating effects on survivors: Speaking the unspeakable (2014) *Ethiopian Journal of Social Science and Language Studies*, 1 (1), pp. 88-97.

- (2020) *Child sexual abuse in England and wales: Year ending March 2019*. [Cited 3 times](#).
47 <https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/articles/childsexualabuseinenglan>

- Omorodion, F.I.
48 [Child sexual abuse in Benin city, edo state, nigeria: A sociological analysis](#)
(1994) *Issues in Comprehensive Pediatric Nursing*, 17 (1), pp. 29-36. [Cited 6 times](#).
doi: 10.3109/01460869409078286

[View at Publisher](#)

- Orth, U., Robins, R.W.
49 [The Development of Self-Esteem](#) (Open Access)
(2014) *Current Directions in Psychological Science*, 23 (5), pp. 381-387. [Cited 220 times](#).
<http://cdp.sagepub.com/content/by/year>
doi: 10.1177/0963721414547414

[View at Publisher](#)

- Park, S., Lee, Y., Jun, J.Y.
50 [Differences in the relationship between traumatic experiences, self-esteem, negative cognition, and Internet among North Korean adolescent defectors and South Korean adolescents: A preliminary study](#)
(2017) *Psychiatry Research*, 257, pp. 381-385. [Cited 8 times](#).
www.elsevier.com/locate/psychres
doi: 10.1016/j.psychres.2017.07.078

[View at Publisher](#)

- Pereda, N., Guilera, G., Forns, M., Gómez-Benito, J.
51 [The international epidemiology of child sexual abuse: A continuation of Finkelhor \(1994\)](#) (Open Access)
(2009) *Child Abuse and Neglect*, 33 (6), pp. 331-342. [Cited 312 times](#).
doi: 10.1016/j.chiabu.2008.07.007

[View at Publisher](#)

- Pfeiffer, L., Salvagni, E.P.
52 [Current view of sexual abuse in childhood and adolescence](#) (Open Access)

(2005) *Jornal de Pediatria*, 81 (5 SUPPL.), pp. S197-S204. [Cited 36 times](#).
<http://www.jped.com.br/conteudo/05-81-S197/ing.pdf>
doi: 10.2223/JPED.1408

[View at Publisher](#)

- Priebe, G., Hansson, K., Svedin, C.G.
53 [Sexual abuse and associations with psychosocial aspects of health. A population-based study with Swedish](#)

(2010) *Nordic Journal of Psychiatry*, 64 (1), pp. 40-48. [Cited 11 times](#).
doi: 10.3109/08039480903265769

[View at Publisher](#)

- Ray, R., Mahapatro, S., Kar, S.S.
54 Adolescent Counselling
(2011) *Indian Journal of Clinical Practice*, 22 (3), pp. 117-119. [Cited 2 times](#).

- Reese-Weber, M., Smith, D.M.
55 [Outcomes of child sexual abuse as predictors of later sexual victimization](#)

(2011) *Journal of Interpersonal Violence*, 26 (9), pp. 1884-1905. [Cited 15 times](#).
doi: 10.1177/0886260510372935

[View at Publisher](#)

- Robins, R., Trzesniewski, K., Donnellan, M.
56 A brief primer on self-esteem
(2012) *The Prevention Researcher*, 19 (2), pp. 1-7. [Cited 13 times](#).

- Rosenberg, M.
57 Self-concept from middle childhood through adolescence
(1986) *Psychological perspectives on the self*. [Cited 347 times](#).
Suls J., Greenwald A.G., (eds), Erlbaum,. (Eds

- Rosenberg, M., Schooler, C., Schoenbach, C., Rosenberg, F.
58 Global self-esteem and specific self-esteem: Different concepts, different outcomes (1995) *American Sociological Review*, 60 (1), pp. 141-156. [Cited 794 times.](#)
<https://doi.org/10.2307/2096350>
- Rosenfield, S.
59 (1999) *Spitting the difference: Gender, the self and mental health.* [Cited 51 times.](#)
In C. Anaschensel and J Phelan, (Eds.), *Handbook of the Sociology of Mental Health.* New York: Plenum
- Sawyer, S.M., Azzopardi, P.S., Wickremarathne, D., Patton, G.C.
60 [The age of adolescence](#)
(2018) *The Lancet Child and Adolescent Health*, 2 (3), pp. 223-228. [Cited 438 times.](#)
<https://www.journals.elsevier.com/the-lancet-child-and-adolescent-health>
doi: 10.1016/S2352-4642(18)30022-1
- [View at Publisher](#)
- Singh, M.M., Parsekar, S.S., Nair, S.N.
61 An epidemiological overview of child sexual abuse
(2014) *Journal of Family Medicine and Primary Care*, 3 (4), pp. 430-435. [Cited 69 times.](#)
<https://doi.org/10.4103/2249-4863.148139>
- Steinberg, L.
62 (2014) *Age of opportunity: Lessons from the new science of adolescence.* [Cited 252 times.](#)
Houghton Mifflin Harcourt
- Stern, A.E., Lynch, D.L., Oates, R.K., O'Toole, B.I., Cooney, G.
63 [Self Esteem, Depression, Behaviour and Family Functioning in Sexually Abused Children](#)
(1995) *Journal of Child Psychology and Psychiatry*, 36 (6), pp. 1077-1089. [Cited 87 times.](#)
doi: 10.1111/j.1469-7610.1995.tb01352.x

[View at Publisher](#)

- (2013)
64 <https://www.nspcc.org.uk/preventing-abuse/child-abuse-and.../child-sexual-abuse/>

- Turner, H.A., Finkelhor, D., Ormrod, R.
65 [The effects of adolescent victimization on self-concept and depressive symptoms](#)

(2010) *Child Maltreatment*, 15 (1), pp. 76-90. [Cited 105 times.](#)
doi: 10.1177/1077559509349444

[View at Publisher](#)

- (2017) *Division of data, research and policy online.* [Cited 2 times.](#)
66 https://www.unicef.org/publications/files/Violence_in_th_lives_of_children_and_adol_escents.pdf

- (2015) *Resolution adopted by the general assembly on 25 September.* [Cited 271 times.](#)
67 https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&E

- (2019) *About sustainable development goals.* [Cited 810 times.](#)
68 <https://www.un.org/sustainabledevelopment/sustainable-development-goals>

- Ward, C.L., Artz, L., Leoschut, L., Kassanje, R., Burton, P.
69 [Sexual violence against children in South Africa: a nationally representative cross-sectional study of prevalence](#)
Access)

(2018) *The Lancet Global Health*, 6 (4), pp. e460-e468. [Cited 44 times.](#)
<http://www.elsevier.com/journals/the-lancet-global-health/2214-109x>
doi: 10.1016/S2214-109X(18)30060-3

[View at Publisher](#)

- (2013) *Definitions of key terms.* [Cited 3 times.](#)
70 <http://www.who.int/hiv/pub/guidelines/arv2013/intro/keyterms/en/>

□ Young, T.L., Riggs, M., Robinson, J.L.

71 [Childhood sexual abuse severity reconsidered: A factor structure of CSA characteristics](#)

(2011) *Journal of Child Sexual Abuse*, 20 (4), pp. 373-395. [Cited 18 times](#).
doi: 10.1080/10538712.2011.590124

[View at Publisher](#)

□ Zakeri, H., Karimpour, M.

72 [Parenting styles and self-esteem](#) (Open Access)

(2011) *Procedia - Social and Behavioral Sciences*, 29, pp. 758-761. [Cited 14 times](#).
doi: 10.1016/j.sbspro.2011.11.302

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(2019) *Medical Journal of the Islamic Republic of Iran*
- [Clinical characteristics of children presenting with history of sexual abuse to a tertiary care centre in India](#)
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