

Volume 6, No.1
April, 2023

e-ISSN : 2685-1997
p-ISSN : 2685-9068

REAL in Nursing Journal (RNJ)

Research of Education and Art Link in Nursing Journal

<https://ojs.fdk.ac.id/index.php/Nursing/index>

Psychological Impact on Stunting Adolescents: Literature Review Study

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ABSTRACT

Background: The impact caused by stunting is not only on physical development but will also have an impact on the child's psychology. Adolescents with stunting need to have high spirits so that they can be able and survive in life they avoid psychological impacts such as stress, withdrawal, depression, anxiety, and fear. The purpose of this study was to see the psychological impact caused by stunting in adolescence. **Methods:** The literature review method was used to search for articles in electronic databases, namely Google Scholar, Research Gate, and PubMed/Medline. **Results:** The search was carried out using the keywords "stunting", "psychological impact", "adolescents", "anxiety", and "stress". Analysis conducted by the authors of 6 relevant articles found that there was a psychological impact on adolescents with stunting. **Conclusion:** The existence of counseling teachers can provide information services to develop positive potential in students, besides that social support and efficient parenting are needed so that teenagers can overcome the psychological impact they experience so that they can get through adolescence and plan for the well future.

Keywords:

Stunting; Psychological Impact; Adolescents

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Abstrak

Dampak yang ditimbulkan stunting tidak hanya pada perkembangan fisik tetapi juga akan berdampak pada psikologi anak. Remaja stunting perlu memiliki semangat yang tinggi agar mampu dan bertahan hidup terhindar dari dampak psikologis seperti stres, menarik diri, depresi, cemas, dan takut. Tujuan dari penelitian ini adalah untuk melihat dampak psikologis akibat stunting pada remaja. Metode literature review digunakan untuk mencari artikel di database elektronik yaitu Google Scholar, Research Gate, dan PubMed/Medline. Penelusuran dilakukan dengan menggunakan kata kunci "stunting", "dampak psikologis", "remaja", "kecemasan", dan "stres". Analisis yang dilakukan oleh penulis terhadap 6 artikel yang relevan menemukan adanya dampak psikologis pada remaja stunting. Adanya guru bimbingan konseling dapat memberikan layanan informasi untuk mengembangkan potensi positif pada siswa, selain itu diperlukan dukungan sosial dan pola asuh yang efisien agar remaja dapat mengatasi dampak psikologis yang dialaminya sehingga dapat melewati masa remaja dan merencanakan masa depan dengan baik.

Kata Kunci: Stunting, Dampak Psikologi, Remaja

INTRODUCTION

Stunting is the impact of a systemic condition of chronic malnutrition in children, which can develop during the first two years of life. In developing countries stunting is a serious public health problem and its prevalence remains high. Stunting is caused by a long-term lack of nutrition during the first 1,000 days of life (HPK), which is a critical period (Kementerian Kesehatan, 2016). According to WHO (2013), the factors causing stunting are directly related to 4 main factors, namely infectious diseases, breastfeeding practices, food availability, inappropriate feeding practices, and poor food quality. In addition, there is also an influence with social, economic, and cultural aspects that influence the beliefs and norms that exist in the local community.

According to WHO data, Indonesia is included in the top three countries with a high prevalence of stunting. Based on data from the Indonesian Basic Health Research (Riskesdas) in 2018, showed a decrease in the prevalence of stunting compared to previous years. In 2013, the stunting rate reached 37.2% and in 2018 it fell to 30.8% with 19.3% short toddlers and 11.5% very short toddlers. Meanwhile, data from the 2019 Indonesian Toddler Nutrition Status Survey (SSGBI) showed a decrease in stunting when compared to Riskesdas 2018, which was 27.67% (Hasto, 2021). In West Sumatra, the stunting rate is above the national figure of 46.1% (2013). This figure has decreased to 40.8% in 2018. This number shows that many children need more attention because they are not growing well (Kementerian Kesehatan, 2018).

The prevalence of stunting in adolescents in West Sumatra in 2013 was above the national prevalence, namely 42% (very short 17.3% and short 24.7%) in the age group of 13-15 years and

33.1% (very short 8.4% and short). 24.7%) in the 16-18 year age group (Kementerian Kesehatan, 2013). Whereas in 2018 the prevalence of stunting in adolescents was almost the same as the national figure of 25.6% (very low). short 3.7% and short 23.1%) in the group aged 16-18 years old. Despite the decline, this figure is still relatively high when compared to other countries in Southeast Asia. The incidence of stunting in West Sumatra at the end of 2021 is 23% (Kementerian Kesehatan, 2018). Stunting occurs when children under five years old are usually less aware of it. This is because there are not too many differences between stunted children and normal children. Prevention of stunting is very important because the age under five years is a golden period where in these years children will experience very rapid growth both physically and intellectually, so this must be supported by good nutritional status (Margawati & Astuti, 2018).

According to Hall Cougar (2018), children who experience stunting in their early life (before the age of six months) will affect their health and development and disrupt cognitive growth and development. The impact is very broad, starting from the economic dimension, intelligence, quality, and the national dimension which affects the child's future. Children who are stunted have an average decrease in intelligence (IQ), so their learning achievement is low and they cannot continue their studies. When looking for a job, the chances of failing the job interview test are great and not getting a good job, which results in low income (*economic productivity hypothesis*) and not being able to meet food needs. Because of this, children who suffer from stunting have an impact not only on their shorter physique but also on their intelligence, productivity, and achievements later as adults, so it will become a burden on the state.

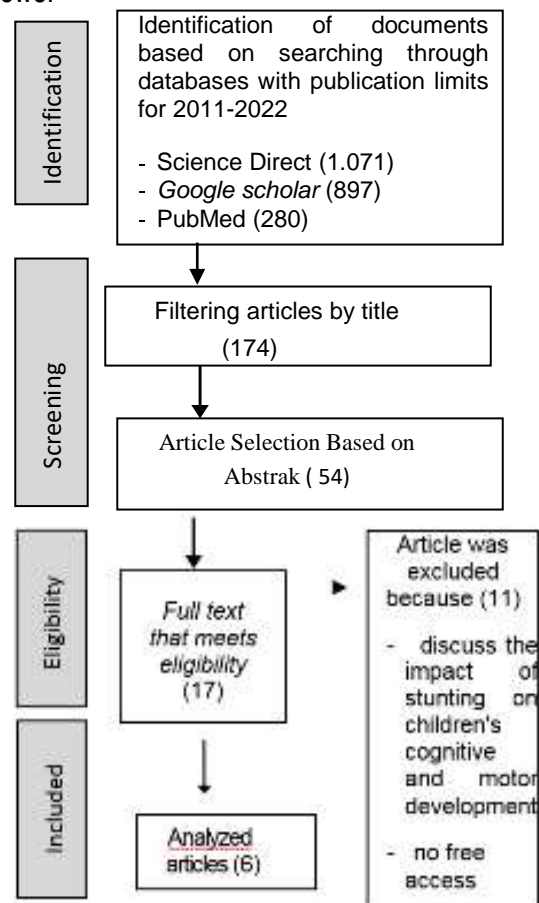
Stunting not only has an impact on children's physical growth and intelligence but also has an impact on children's psychology. Another impact has the risk of impaired cognitive, motor, and verbal development that is less than optimal (Rafika, 2019). The risk of psychosocial dysfunction is higher than in normal conditions. Children with low self-confidence and at risk of family problems, especially when they are teenagers (Erfanti, D.O., Setiabudi, D. and Rusmil, K., 2016). Stunting children are also easily stressed and prone to depression. In adolescence, having low cognitive abilities, which are underdeveloped, is 18.333 times greater than adolescents who are not stunted (Rahmaningrum, 2017).

The psychological well-being of adolescents is an optimal achievement of psychological potential in adolescents where they can accept themselves, have good interpersonal relationships, have life goals, be independent, can master the environment, and have self-development (Ryff, 1989). Psychological well-being is related to behavioral problems, how individuals play roles in their lives, and one's coping strategies when faced with a situation which can have a direct and positive effect on psychological well-being (Zahara, 2022). Based on the explanation of the problem regarding the psychological impact on stunting adolescents, the researchers have an interest in discussing the psychological impact on stunting adolescents using review studies from previous researchers.

RESEARCH METHODE

The research uses the literature study method using data from various research journals so that the quality of articles studied is of high quality. The database used was searched through Science

Direct, Google Scholar, and PubMed/Medline. Method strategy search use PRISMA (Preferred Reporting Items for Systematic Review & Meta-Analysis) through four stages which consists of identification, screening, equity, and final included. The search was conducted using the keywords "stunting", "psychological impact", "adolescents", "anxiety", and "stress". This study focuses on knowing the psychological impact caused by stunting when children are in their teens. Limited year of publication (2011 to 2022), article type "research article", and Open Access. Articles must be in full text and published in national and international accredited journals. The articles obtained after being selected are 6 articles. In strategy the search and selection document is as follows:



Picture 1. Plot Search Article

RESULT AND DISCUSSION

Stunting has an impact on the future of children if it is not prevented early. The long-term impact in the form of delays in psychomotor development, cognitive, and child productivity affects the country's economy such as low productivity in adulthood and increase risk of degenerative diseases (Yulianti et al., n.d.). *Stunting* teenagers make growth and development no maximum, even though age teenager age where occur acceleration on growth. *Stunting* in teenagers could be caused by many factors among others are gender, social economy, and disease (Sari et al., 2017)

If stunting is not prevented as early as possible, then there is a possibility that stunting will continue. In adolescence, children who are stunted will be more prone to experience low self-esteem than those who are not *stunted*. Sufferers of *stunting* in a manner significant often feel not enough happy stressed and frustrated (Fernald &

Grantham et. all, 2017). According to Sari (2017), an unhealthy self-image is one of the causes of psychosocial problems, with as many as 43.75% of students *stunting* sometimes or often feeling bad about themselves. Apart from self-image, other factors affect namely cognitive factors that are often associated with academic achievement, but in the results of the research, only 7.29% of the student with *stunting* decreased scores. The results of the study Erfanti (2016) stated that there was a relationship between psychosocial aspects of stunting adolescents with stigmatization by the surrounding environment that affected psychosocially. He also reported that social adaptation problems are associated with social immaturity, which occurs because stunted adolescents are physically weaker so they need excessive protection from parents, which causes children to rarely socialize with friends of the same age.

Table 1. Results of Literature Study

No	Article Title	Article Name/ Number and year/ Author	Country	Methodology: Type of research, design, sampling, analysis	Findings
1	Psychosocial Stress Cortisol and Growth Hormone Levels Among Stunting Adolescents of Minangkabau Ethnicity in West Sumatra	<i>Sys Rev Pharm</i> 12 (1), 1561-5. (Indrawati Lipoeto et al., 2021)	West Sumatra, Indonesia	This research is a case-control study design. Research subjects: SMA in Padang City, a suburban area in Padang. The research sample is stunting adolescents aged 16-18 years, ethnic Minangkabau, Padang City	Multi-factor causes stunting, one genetic factor, namely human growth hormone (GH). Levels of these growth hormones include the hormone cortisol. Cortisol will suppress the hormone and inhibit growth. Cortisol is a hormone released from the adrenal glands when the body is under stress. This study found that psychosocial stress that occurs in stunting adolescents is associated with high cortisol and hGH hormones.

No	Article Title	Article Name/ Number and year/ Author	Country	Methodology: Type of research, design, sampling, analysis	Findings
2	The Relationship of Psychosocial Dysfunction and Stunting of Adolescents in Suburban, Indonesia a	<i>Open Journal of Medical Psychology</i> , 5 (04), 57. (Erfanti et al., 2016)	Indonesia (Jatinangor)	The subjects are teenagers aged 11-14 years in Jatinangor, West Java. This research is an analytic observation with the cross-sectional method.	Stunting children are physically weaker than those who are not, causing excessive protection from parents. It is a strong predictor of victimization from peers of the same age. The results of this study are that there is a significant influence between psychological dysfunction in adolescents and the incidence of stunting in adolescents. Several psychological problems were found in adolescents who were stunted.
3	Early Childhood Stunting Is Associated with Poor Psychological Functioning in Late Adolescence and Effects Are Reduced by Psychosocial Stimulation	<i>The Journal of nutrition</i> , 137 (11), 2464-2469. (Walker et al., 2014)	Jamaica	This study is a prospective cohort study of stunted and non-stunted children. Participants were identified at 9-24 months of age and a 2-y intervention trial of supplementation and stimulation was conducted in stunted children. The psychological function was assessed at 17 years of age in the 103 of the 129 stunted children enrolled and 64 of the 84 non stunted participants.	Children who were stunted in the first 2 years of life had worse psychological outcomes in late adolescence than participants who were not stunted. The psychological disorders that often appear are symptoms of anxiety and depression, worse self-esteem, and more hyperactive behavior. There is also a trend for higher levels of oppositional behavior. This study found that there is a relationship between stunting in children and the psychosocial effects they experience when they are teenagers.
4	Parenting Practices as an Effort to Prevent the Impact of Stunting on the Psychosocial Development of Children	<i>Journal of Psychiatric Nursing</i> , 3 (3), 263-272. (Primasari & Anna Keliat, 2017.)	Indonesia	The systematic review method is used to search for articles in electronic databases, namely ProQuest, Sage Publications, and Google Scholar.	The impact that occurs from stunting is in addition to stunting in childhood growth. It also has an impact on children's development, ranging from motor, social, language, and cognitive development. Parenting practices have effectiveness or important role in helping

No	Article Title	Article Name/ Number and year/ Author	Country	Methodology: Type of research, design, sampling, analysis	Findings
					to improve children's development with active and responsive interactions between parents and children to help children provide stimulation for increased development. Good and correct parenting practices can improve children's development. This can happen because of the interaction between parents and children when giving the stimulus so that development occurs optimally.
	Stunting Adolescent Resilience: Some Find It Difficult to Get Up and Survive in the Face of Problems	<i>BSI Nursing Journal</i> , 5 (2). (Sari et al., 2017)	Indonesia	quantitative descriptive approach. Respondents in this study were all 65 students of SMPN 2 Jatinangor class VII and class VIII who experienced stunting. Data was collected using the Resilience Scale for Adolescent instrument	The results of the study on the level of resilience of adolescents with stunting in SMP Negeri 2 Jatinangor, it can be concluded that some respondents (53.8%), or as many as 35 people have a high level of resilience. Resilient individuals will have the characteristics of perseverance, whereas resilient individuals will continue to be determined and struggle to live their lives in the face of difficult circumstances or situations. In addition, it is also supported by social support provided both from the family, environment, and the surrounding community. The higher the social support obtained, the higher the level of one's resilience.
6	Differences in the Psychological Condition of Adolescents with a History of	<i>BEST Journal (Biology Education, Science, and Technology)</i> , 4 (2), 256-261.	Indonesia	Observational study with a case-control design using a retrospective approach to 45 adolescents in SMP Yapim Biru-Biru, cases of adolescents with a history	The influence of a history of stunting on the psychological condition of adolescents.

No	Article Title	Article Name/ Number and year/ Author	Country	Methodology: Type of research, design, sampling, analysis	Findings
	Stunting and Non-Stunting at Yapim Biru-Bir Private Junior High School for	(Manurung et al., 2021)		of stunting, and control of adolescents with non- stunting.	

Walker et. all (2014) stated that youth *stunting* more easily experienced symptoms of depression, anxiety, and low self-esteem compared to other normal teenagers. When teenagers are ostracized there will be sadness, stress, and frustration (Santrock, 1999). The impact that occurs on children who experience stunting is not only an impact on growth physique but also the development of cognitive and other intelligence. Growth failure in the first 2 years of life is linked with a decreased quality of the man in time maturity. Stunting is venurable at golden age children (Yanti, et. al, 2020). *Stunting* is very closely related to nutrition, where if this nutrition is not fulfilled it will interfere with the work of the body's organ systems and is one of the organs that suffer the most quickly. damage in nutritional disorders is the brain. The brain is a nerve center closely related to the child's response to seeing, hearing, thinking, and making moves. *Stunted* children can cause feelings to want to know the child to the environment is lost (Amaliah, 2012).

According to *the United Nations Children's Fund* (UNICEF) (2012), the impact of *stunting* which is critical on teenager will hinder the development of physique and mental, the learning process at school is not optimal compared to teenagers other normal, tend to be late for school and often do not attend school so will hinder time front. Teenagers with *stunting* usually have physical limitations, problem behavior, experience *bullying* (mocked and disturbed), difficulty for build

connections interpersonal and psychosocial problems such as low self-esteem, tend to have behavior dodge, experience worry exists feeling guilty, and depression (Primasari & Anna Keliat, 2017).

The adolescent phase is the phase where the child will be bigger many uses up time with friends and peers compared with his parents (Desmita, 2006). They think that the views of their friends are more important than those of their parents so teenagers will do what just for could be received by group peers. Adolescents with different physical conditions will tend to get negative treatment from their group mates so most adolescents with stunting will often be alone because attitudes are not accepted by their peers (Indrawati Lipoeto et al., 2021). Rejection from their peers makes youth *stunted* often feel inferior, embarrassed, sad, annoyed, and feeling different from other people especially when they are in an environment new with new people. This even made them cry, daydream, and have angry consequences from other people's view of self (Fatmawaty, 2017).

The results of research conducted by Erfanti (2016), stated that 53 stunting adolescents experienced psychosocial dysfunction including 15 people feeling low self-esteem, 18 people experiencing bullying, 10 people experiencing anxiety, and 10 people experiencing an academic decline. The occurrence of

psychosocial dysfunction by internal and external factors. Internal factors: feelings that are different from others and the desire to have an ideal height. Factors in themselves, adolescents have low self-esteem and are prone to depression. Meanwhile, external factors come from the surrounding environment, especially the family, such as the pattern of parent-child relationships, social status, and economic status (Erfanti et al., 2016).

Walker et. all (2014) stated that teenagers *stunting* more easily experience symptoms of depression, anxiety, and low self-esteem compared to other normal teenager. When teenagers are ostracized, there will be sadness, stress, and frustration (Santrock, 1999). Risk factors for teenage stress *stunting* are the presence of *bullying* and negative attitudes from peers who treat it inappropriately (Maghfira & Rachmawati, 2009). Psychological impacts on *bullying* victims the most extreme include fear, excessive anxiety, depression, suicide, and post-traumatic stress (Hasto, 2021). Thus, it is necessary to hold an effort to prevent the impact psychological which is carrying on.

Several references show that stunted children in the early two years of their life tend to be at risk of experiencing problems in psychological conditions as teenagers when compared to normal children. The negative effect of stunting on child development can be minimized (Manurung et al., 2021). Stunting psychosocial disorders are prominent in adolescence. Adolescence is categorized as a transition period experienced by children to reach adulthood. In this phase, there will be some major changes in terms of bio-psychosocial, physical, emotional, and social aspects (Fatmawaty, 2017).

Adolescents with stunting often feel alienated from their friends, have low self-esteem, are socially withdrawn, have low self-esteem, and are often depressed by being the target of ridicule for their friends (Erfanti et al., 2016).

The stunted teenager often feels *inferior*, embarrassed, sad, annoyed, and feeling different from other people especially when they are in an environment new with new people. They often get good ridiculed by classmates and underclassmen, so some of them arrived cry, daydream, and have angry consequences of mockery which they accept. The impact psychologically on victims of *bullying* is most extreme among them fear, excessive anxiety, depression, suicide, and post-traumatic stress (Fatmawaty, 2017).

CONCLUSION

The impact of stunting is not only on the physical condition of the child, but the child will also experience an impact on the psychological condition. This psychological problem arises especially if the child is stunted as a teenager, he feels different from his peers. Psychological problems arise when children withdraw, experience anxiety for fear of being bullied by their friends, have low self-esteem for their body shape, and stress they can also experience depression and are even afraid of negative thoughts to commit suicide. It is hoped that the family, environment, and community will provide support and motivation for youth who are stunted so that they can live their day richer. The existence of Counseling Guidance Teachers in schools is expected to help students overcome the psychological impact of stunted teenagers and other problems on children who experience stunts at school. One of the activities of the BK

teacher can be to provide information services aimed at equipping individuals with sharing knowledge and understanding of various things that are useful for knowing themselves, planning, and developing patterns of life as students, family members, and society. Guidance and counseling teachers can also develop the positive potential that exists in them, especially those who experience stunting. In addition, parents are also required from an early age to be able to provide parenting practices that are effective in helping reduce the psychological impact experienced by children.

REFERENCES

- Amaliah, N., Sari, K., & Rosha, BC (2012). Short Height Status Risk of Delayed Menarche Age in Adolescent Girls Age 10-15 Years (Stunting Increased Risk Of Delaying Menarche On Female Adolescent Aged 10-15 Years). *Nutrition and Food Research*, 35 (2), 150-158.
- Black, MM, Walker, SP, Fernald, LC, Andersen, CT, DiGirolamo, AM, Lu, C., ... & Lancet Early Childhood Development Series Steering Committee. (2017). Early childhood development coming of age: science through the life course. *The Lancet*, 389 (10064), 77-90.
- Erfanti, DO, Setiabudi, D., & Rusmil, K. (2016). The Relationship of Psychosocial Dysfunction and Stunting of Adolescents in Suburban, Indonesia. *Open Journal of Medical Psychology*, 05 (04). <https://doi.org/10.4236/ojmp.2016.54007>
- Fatmawaty, R. (2017). Understanding Adolescent Psychology. *Journal of Reforma*, 2 (1). <https://doi.org/10.30736/rfma.v6i2.33>
- Hall, C., Bennett, C., Crookston, B., Dearden, K., Hasan, M., Linehan, M., Syafiq, A., Torres, S., & West, J. (2018). Maternal Knowledge of Stunting in Rural Indonesia. In *International Journal of Child Health and Nutrition* (Vol. 7)
- Hasto, W. (2021). *Stunting Conditions in Indonesia and the Importance of Planning for Family Life for the Young Generation*, Webinar "Young People Can Prevent Stunting Is It Possible?"
- Indrawati Lipoeto, N., Yanis, A., Purnakarya, I., Resmala Sudji, I., Dana Nindrea, R., & Author, C. (2021). Psychosocial Stress, Cortisol and Growth Hormone Levels among Stunting Adolescent of Minangkabau Ethnicity in West Sumatra Province, Indonesia: A School-Based Study. *Systematic Reviews in Pharmacy*, 12 (1).
- Kemendes RI. (2018). *Basic Health Research 2018*.
- Kemendes RI. (2016). *Short toddler situation information*.
- Manurung, E., Panjaitan, RF, & Lubis, FH (2021). Differences in the Psychological Condition of Adolescents with a History of Stunting and Non Stunting at Yapim Biru-Biru Private Junior High School. *BEST Journal (Biology Education, Science and Technology)*, 4 (2). <https://doi.org/10.30743/best.v4i2.4558>
- Margawati, A., & Astuti, AM (2018). Mother's Knowledge, Diet, and Nutritional Status in Stunting Children Age 1-5 years in Bangetayu Village, Genuk District, Semarang. *Indonesian Journal of Nutrition*

- (*The Indonesian Journal of Nutrition*), 6 (2).
<https://doi.org/10.14710/jgi.6.2.82-89>
- Primasari, Y., & Anna Keliat, B. (nd). *Parenting Practices as an Effort to Prevent the Impact of Stunting on Child Psychosocial Development*.
- Rafika, M. (2019). The Impact of Stunting on Children's Psychological Conditions. *Jagaddhita Bulletin*, 1 (1).
- Sari, RF, Sari, SP, & Hernawaty, T. (2017). Stunting Adolescent Resilience: Some find it difficult to get up and survive in the face of problems. *BSI Journal of Nursing*, 5 (2)
- Walker, SP, Chang, SM, Powell, CA, Simonoff, E., & Grantham-McGregor, SM (2014). Early childhood stunting is associated with poor psychological functioning in late adolescence and effects are reduced by psychosocial stimulation. *Journal of Nutrition*, 137 (11).
<https://doi.org/10.1093/jn/137.11.2464>
- Yanti, N. D., Betriana, F., & Kartika, I. R. (2020). Faktor Penyebab Stunting Pada Anak: Tinjauan Literatur. *Real In Nursing Journal*, 3(1), 1-10.
- Yulianti, ND, Farmawati, A., & Indriani, C. (nd). *The Occurrence of Stunting and Micronutrient Intake Factor In Adolescent Girls of Islamic Boarding School In Yogyakarta*.
[Http://Etd.Repository.Ugm.ac.id/](http://Etd.Repository.Ugm.ac.id/)