


Literature Review

Loneliness in Adolescents with Attention Deficit Hyperactivity Disorder (ADHD)

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Abstracts

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Introduction: Attention deficit hyperactivity disorder is a disorder of children's growth and development with neurodevelopmental disorders characterized by symptoms of inattention, hyperactivity, and impulsivity. ADHD in children can persist into adolescence in about 2.6% of the general population. About more than half of people with ADHD experience loneliness, a condition that is often not reported by patients but is evident in the negative emotions and behaviors they display. To explain the risk factors and impact of loneliness in adolescents with ADHD. **Methods:** Literature review. **Results:** The use of gadgets in today's digital era increases the risk of increasing internet usage so that more contact is made online, which causes obstacles for adolescents in fostering social relationships and an increased risk of loneliness. Adolescents with ADHD have a negative assessment of themselves; they feel useless, lack confidence, and lack intelligence when compared to their peers. Economically, low-income family conditions and inappropriate parenting increase the risk of loneliness in ADHD adolescents. Adequate treatment will cause it to develop into other mental disorders such as anxiety, depression, defiant attitude disorder, and adolescent behavior disorder. **Conclusions:** Adolescents with ADHD are prone to experiencing loneliness. Parenting problems, family socioeconomics, past trauma, bullying, and several internal factors such as low self-confidence, insecurity, low adaptability, and lack of emotional control can cause loneliness.

Keywords: ADHD, Adolescents, Loneliness, Mental Health, Psychological Well-Being

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INTRODUCTION

Attention Deficit Hyperactivity Disorder (ADHD) is a disorder of child development with neurodevelopmental disorders characterized by emotional symptoms, hyperactive behavior, and lack of focus. The prevalence of this disorder is about 3-7% in children in the USA. ADHD can persist into adolescence and even adulthood with a lower prevalence than in children [1]. The tendency to settle down until older people also exists, but with a smaller percentage than adults. The prevalence of ADHD in adolescents is about 2.6% in the general population. There are three typical symptoms in children with ADHD, namely inattention, hyperactivity, and impulsivity; in adolescents, the symptoms of hyperactivity and impulsivity decrease; inattention symptoms also decrease but often persist until adulthood. Gender also distinguishes the symptoms that are often seen in adolescents with ADHD. In men, the dominant symptoms are hyperactivity and impulsivity, while in women, the dominant symptoms of inattention are more visible. ADHD symptoms in high school-aged adolescents will affect their academic achievement at school and problems in their social environment [2-4].

Adolescents with ADHD will show unstable emotions where they are easily angry and aggressive with their family or friends. Parents who do not understand the condition or symptoms of ADHD in adolescents will sometimes get emotional and blame adolescents for ADHD. This condition will cause ADHD adolescents to become more aggressive; parents tend to ignore and allow their child's behavior. Some parents feel upset and become indifferent to the dominant behavior of the child in the form of externalization. Adolescents with ADHD also tend to be shunned from social interactions with their friends due to the destructive and disruptive behaviors of their friends. ADHD adolescents will lose their attachment objects because their parents neglect them, in addition to feeling shunned and bullied by

their playmates. The risk of ADHD adolescents feeling lonely is increasing. About more than half of people with ADHD experience loneliness, a condition that is often not reported by patients but is evident in the negative emotions and behaviors they display [1, 3, 5].

ADHD teens in today's digital age are more focused and enjoy spending more time with their gadgets. Excessive use of gadgets often results in internet addiction in ADHD adolescents. There exists a bidirectional association between internet addiction and ADHD. Adolescents with ADHD have a greater risk of having internet addiction and prolonged use of the internet would make ADHD symptoms worse. Internet addiction causes people to forget about other activities, including socialization so that they tend to withdraw from society and will feel lonely, and vice versa; loneliness causes ADHD adolescents to become addicted to the internet. Loneliness is a feeling a person feels due to the absence of a close or good relationship with others. Loneliness can increase the risk of stress in adolescents, accompanied by anxiety and depression disorders and even suicidal behavior. Loneliness also causes a decline in their performance, and adolescents in school experience a decline in learning achievement. Loneliness almost mostly causes low self-well-being, both physical and psychological, and a decrease in quality of life. The impact is large and can last throughout the patient's life, so it is necessary to understand that adolescents with ADHD have a risk of experiencing loneliness, which hurts the quality of life of adolescents with ADHD later [6-12].

Loneliness in ADHD Adolescents

Adolescence is a transition phase from childhood to adulthood; in addition to changing the sense of responsibility, adolescents also have problems related to these changes. Adolescents begin to focus on their work or school, focus on finding their identity, and begin to leave their homes and families for

education or work. These changes in terms of social environment and social contact tend to lead adolescents to the risk of feeling lonely. In addition to parents or older people, adolescents are also vulnerable groups who will experience loneliness. A study showed that around 51% of the population felt lonely, and the age at which they often felt lonely was 18-25 years old. In Indonesia, the loneliness rate was dominant in adolescents aged 18 to adults aged 24 years [5, 9]. Research in Jakarta found that adolescent girls have a higher prevalence of loneliness compared to adolescent boys [13].

Loneliness in adolescents increased in 2012 when, at that time, technology was developing rapidly, dubbed the digital era. Teenagers focus more on the world of social media than on real activities, so they seem to be isolated [9]. For adolescents with ADHD, the symptoms are psychomotor hyperactivity, shown by the inability to sit calmly, think a lot, and talk a lot; there is difficulty maintaining focus so it is not easy to listen and communicate sometimes inconsistent, as well as impulsivity disorders that appear from unstable emotions, ignorant behavior, and behavior that tends to hurt those around them [1]. Adolescents with ADHD also have problems with socialization with peers and the surrounding environment. Research on adolescents with ADHD found that more than 50% of ADHD children experience disorders in self-adjustment so that they have few friends and are unable to maintain friendship relationships, which causes feelings of loneliness in ADHD adolescents [14]. The rate of ADHD in the world has reached 5-13% in children and adolescents [1, 9, 15].

Loneliness is a complex emotional condition experienced by a person. Loneliness can be grouped into three groups. The first group is social loneliness, where a person feels lonely because of the absence of social contact with the surrounding environment, including the family environment. This is common in big cities because busy parents and friends who are busy with their activities can do all

the work online, reducing social contact. The second loneliness is emotional, which is more dominant because emotions are subjective. Stress conditions with anxiety, mental problems, workloads, or other life burdens make a person too focused on their problems so that they are unable to enjoy interactions with others. People feel lonely when the conditions are crowded, for example, when gathering with their friends, but they feel lonely because there is a problem they are thinking about, or they feel that they do not fit in with their friends emotionally. The third type of loneliness is existential loneliness, where a person feels lonely when he is not doing anything or doing activities even though the activity is carried out in his own condition, but the person does not feel lonely. He would feel lonely when work was done and had to rest; only then did he realize he felt lonely [16].

Risk Factors for Loneliness in Adolescents
Teenagers in the digital era already understand and can make good use of technology, including the Internet. All activities are now online, and technology makes human life easier. Teenagers today are more found of playing the internet, such as social media, online games, and pornography. This leads to decreased activities related to peers or a reduction or even a complete loss of social contact. Excessive and continuous internet use can also lead to internet addiction. This internet addiction is closely related to the risk of loneliness in adolescents. Reduced social contact, attachment, and direct communication cause adolescents to be unable to communicate and interact with others in real life, which will cause them to tend to shut themselves up or isolate and feel lonely, and not a few even feel neglected. Loneliness also has a two-way relationship with internet addiction, where people who feel lonely or have no friends will move and be active on social media or the internet, so loneliness makes teenagers addicted to the internet [6, 14, 15, 17]. Adolescents with ADHD are characterized by feeling bored quickly and

do not want to delay rewards, so they tend to play on the internet to reduce their boredom and consider it a pleasant reward for them so that the feeling of discomfort can be ignored [17].

Loneliness in adolescents is also related to the socioeconomic environment of the family; families with high socioeconomic levels tend to experience loneliness more often as well, and small families with a very small number of members are at very high risk of loneliness in adolescents in the family. Quite good economic conditions have a positive effect, namely, all basic needs are met, even the tertiary needs of children, but this often happens in families with high socio-economic conditions, where both parents work actively to collect income. This results in the fulfillment of children's needs only being met by providing materials without focusing on the need for affection and communication, which causes adolescents to feel lonely. Families with few members, especially being an only child, will increase the risk of loneliness [1, 9].

Adolescents with ADHD with externalizing behaviors that are considered disruptive tend to be shunned by friends and even their own family, including their parents. The reality in the field often happens that fathers do not accept the condition of their children and do not want to approach or even take care of their children. This condition results in feelings of loneliness in children. A father's involvement in parenting has several benefits for children. First, the cognitive aspect of children, with the role of fathers in parenting, increases academic achievement in school, good careers, and other educational achievements. The second impact of the father's involvement in parenting is on emotional or emotional pressure, which leads to reduced anxiety levels, increased satisfaction in the child's life, and reduced stress levels so that emotional control becomes good. This condition causes children to become able to adapt to the environment and communication skills and understand the people around

them better. The third impact of the role of fathers is being able to prevent children from being involved in addictions such as the internet and drugs. Dad will have more time to play together and exchange ideas about life experiences. The role of fathers is also able to reduce internalization and externalization problems in ADHD adolescents [18].

Another external factor that often causes loneliness in adolescents with ADHD is a minority environment where adolescents with ADHD are neglected and perceived differently, so they feel isolated and lonely. An unpleasant experience that causes the teenager to become afraid and embarrassed to initiate contact or communication with others. Unpleasant or embarrassing treatment is often experienced by adolescents with ADHD. Bullying is even the most frequent condition that ADHD adolescents get from schoolmates, peers in the home environment, and even often from their own families who commit bullying. The effect of this condition is that in addition to ADHD adolescents staying away from society, they also often blame themselves for thinking they are weak and incapable of dealing with what others say [5, 16, 18, 19].

The age that often experiences loneliness other than older people is adolescence, with a range starting from the age of 12. Adolescence is related to the change in status felt by adolescents, starting to recognize responsibilities and focus on work and education, no less than adolescents leaving their families to work or study outside the region. This change in the status of adolescents causes them to have less social interaction with the community, so they feel lonely and bored with school or work. This is also felt by adolescents with ADHD, in addition to hormonal changes in neurobiology, which can also increase cortisol when dealing with problems or changes so that they find it difficult to control their emotions. Gender or gender is related to the risk of loneliness; some studies say that women experience loneliness more often than men. The reason for this is

that women are more dominant in using their emotions and feelings, so it is easy to feel neglected and negative thinking. Externalizing behaviors in ADHD adolescents that often cause people around them to feel uncomfortable and stay away from children with ADHD are reported to be higher in girls. This difference occurs because delinquency or externalizing behavior in men is considered natural; boys are naturally naughty, but the opposite happens to girls, namely girls must obey and must not be naughty. The influence of the surrounding environment culture also makes children lonely, considering adolescents with ADHD to be delinquents, so some parents do not allow their children to play with adolescents with ADHD [6, 15]. Internal factors related to the risk of loneliness in adolescents with ADHD are feelings of inferiority and insecurity with others. ADHD teens view themselves as low or form a negative view of themselves. They are afraid to be judged by others and feel helpless in the face of their problems. They also consider themselves incompetent in the field of communication and less able to accept and support their friends, so many friends stay away from adolescents with ADHD [5, 13]. Adaptability is the main factor for the emergence of feelings of loneliness. Adolescents who can adapt to the surrounding environment, close people, and themselves will easily increase their confidence and ability to communicate. Adolescents with ADHD mostly have a disorder in adapting to the environment, so it is difficult to control their emotions, and they easily become irritable when conditions become uncomfortable. They can also not communicate and maintain good relationships with people around them [19, 20].

The Impact of Loneliness on ADHD Adolescents

Humans want satisfaction and happiness, and teenagers want to live comfortably without stress. This condition can be achieved if a person has good personal well-being. Per-

sonal well-being is when a person has good physical, mental, and social health. Those with good personal well-being will have a sense of happiness, satisfaction, low-stress levels, and a good quality of life. Adolescents with ADHD personally have less adaptability, have difficulty controlling emotions, and behave impulsively with everyone. This affects low personal well-being in ADHD adolescents [8].

Adolescents with ADHD, if they experience loneliness and persist for a long time or chronically, can worsen existing ADHD symptoms. This can develop into symptoms of internalization or externalization that are getting worse. Symptoms of internalization due to loneliness are the appearance of negative thoughts about people and the surrounding environment as well as several other circumstances; this condition causes adolescents to develop a state of anxiety and anxiety towards themselves, their family, school environment, or work environment. Symptoms of internalization accompanied by low self-esteem, feelings of isolation, a history of bullying, and past trauma make it difficult for ADHD adolescents to feel comfortable in their lives; almost most will feel sadness and difficulty developing so that they can become depressed, have sleep disorders, neurocognitive dysfunction or have bipolar. The depressive disorder makes the will to study or work non-existent, causing ADHD adolescents to have a low quality of life. The lower quality of life can also burden the family and increase the expression of family emotions, making family functions poor. The impact of this is that the family's mental condition is not good, so not only do adolescents with ADHD develop into mental disorders, but other family members also could become mental disorders as well [18, 21–24].

Externalization symptoms in ADHD are also getting worse; externalization symptoms will develop into defiant behavior disorder and behavior disorder in adolescents, as well as other aggressive behaviors. Adolescents

with ADHD diagnosed because of disruptive behavior alone have been bullied and shunned, so if adolescents with ADHD due to loneliness develop into defiant attitude disorder or behavior disorder, they will be increasingly shunned, ignored, and isolated. This causes a two-way relationship that will not be controlled and develops more and more severely so that loneliness greatly interferes with the quality of life of ADHD adolescents. A low quality of life will increase the relapse of ADHD and thus increase their risk of visiting a health center, which can worsen the prognosis of adolescents with ADHD [8, 14, 15].

CONCLUSION

Adolescents with ADHD are prone to experiencing loneliness. Parenting problems, family socioeconomics, past trauma, bullying, and several internal factors such as low self-confidence, insecurity, low adaptability, and lack of emotional control can cause loneliness. Loneliness in adolescents with ADHD can develop into severe mental disorders such as conduct disorders, defiant behavior disorders, anxiety, and depression.

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CONFLICT OF INTEREST

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