Reasons for the Emergence of Body-Focus Repetitive Behaviors in Students and the Impact of Body-Focus Repetitive Behaviors on Students

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ABSTRACT
Researchers have long explored the relationship between Body-Focus Repetitive Behaviors (BFRBs) and students, including school-age children and youth, and the effects of BFRBs on students. The paper summarizes previous research on BFRBs and related aspects and concludes that the presence of BFRBs is positively associated with students' stress and negative emotions and that BFRBs have a negative impact on student's physical and mental health. It is hoped that this paper will raise the awareness of parents and teachers about BFRBs.

Keywords: *Body-Focused Repetitive Behaviors, Psychology, Children, Adolescence.*

1. INTRODUCTION

Many students find that they unconsciously bite their nails [1] or shake their legs. These repetitive behaviors occur silently, often without people being aware of them. Through the statistics and analysis of previous research papers, the researcher found that in medical pathology, the researchers classified these behaviors as Body-Focused Repetitive Behaviors (BFRBs) [2]. Body-Focused Repetitive Behaviors refers to repetitive, destructive, and meaningless behavior directed at the human body since the further deterioration of BFRB can cause severe pain and dysfunction [3]. Therefore, DSM-5 is classified as a clinical disease. BFRBs usually include harmless "Neurological habits," such as pulling hair, biting nails, and scratching the skin. These movements usually do not occur alone, and the appearance of one motion is often accompanied by the appearance of another motion as a complication [4]. According to past research, based on data from college students, the frequency of hair pulling, nail biting, and skin scratching in the past month was 22% [5], 63% [3] and 90% [6], respectively. The risk of subclinical BFRBs among college students is nearly 60 percent [7].

Even domain experts have difficulty identifying one hundred percent of the reasons for the emergence of BFRBs, and researchers have argued that the emergence of BFRBs is most likely driven by external stress and emotional situations. Although a few research scholars believe that the frequency of BFRBs and stress and emotional situations do not have a strong relationship [3], most of them agree and support that BFRBs and stress and emotional situations are positively correlated [4, 7-13]. Despite the controversy over the frequency of BFRBs, researchers agree that the presence of BFRBs is inextricably linked to mental and physical illnesses. Children with BFRBs reported higher anxiety levels than those without BFRBs, and children with depression, anxiety disorders, OCD, ADHD, etc., had a higher frequency of BFRBs and clinical BFRBs [11, 14, 15]. Severe BFRBs can lead to multiple physical disorders; nail biting can lead to peri-nails, dental damage [4], temporomandibular disorders [16], hair pulling can lead to nonscarring alopecia of uncertain etiology [17], and severe skin picking behavior can lead to self-injurious behavior, etc. [18].

In addition to these physically observable damages, the behavior of BFRBs can have a significant psychological impact on students. Students are taught that BFRBs should not occur, and therefore when BFRBs occur, uncontrollably they can increase the student's distress. Threats, punishments, or teasing by parents when confronted with their child's BFRBs can increase stress and increase BFRBs [4]. Children with BFRBs had more serious emotional and behavioral problems than those without BFRBs, making them more likely to engage in verbal violence at school and attack other students around them [19]. After a comprehensive review

of the literature, the purpose of this article is to summarize past research on BFRBs in students of different ages, to summarize the causes of BFRBs in students and the effects of BFRBs on students, and to alert parents and teachers to the potential disease risks and mental health conditions behind BFRBs. The purpose of this article is to summarize the causes and effects of BFRBs on students and to alert parents and teachers to the potential disease risks and mental health conditions behind BFRBs.

2. REASONS FOR APPEARANCE OF BFRBS

2.1. BFRBs, Stress and Emotional Situation

In 2004, Teng and other researchers conducted two studies in which 454 college students who participated were tabulated and divided into a group with BFRBs, who had experienced BFRBs in the past few weeks no-BFRB groups, who had never experienced BFRBs. The results showed that people in the BFRB group reported higher anxiety data than those in the no-BFRB group, suggesting that people with BFRBs had higher levels of anxiety and depression than people without BFRBs in the same setting. In a further study, the researchers explored whether BFRBs produce changes in frequency due to stress or different emotional situation by exposing participants in both groups to similar emotional environments. The results showed that when BFRBs were randomly exposed to anxiety, depression and boredom, the repetitive behaviors of the BFRB group were not significantly different compared to usual [3]. However, Roberts and his colleagues' results in 2015 indicated that the BFRB group was more likely to experience BFRB actions and increased frequency when depressed, bored, and annoyed [10]. Another cross-sectional study of BFRBs conducted by Siddiqui, Naeem, Naqvi and Ahmed in three medical schools in Karachi showed that the prevalence of BFRBs among the students surveyed was 22% and was higher among women than men, with the researchers attributing the greatest prevalence to the high stress of medical school studies [13]. Sailly, Khanande, Munda and Mehta found a significant association between the frequency of BFRBs and major life events and students' anxiety levels in a study of Indian school students [8]. Data collected from a study conducted by Mansueto, Thomas and Brice on African American college students showed that when participants underwent hair pulling, the most common emotional experiences were boredom and apathy, followed by nervousness and anxiety. In contrast, the change in the mood before and after hair pulling was dramatic, with approximately one-third of participants reporting feeling relaxed after hair pulling [9]. This study confirms a pattern to the emergence of BFRB, while there are no significant differences between races.

By integrating these existing studies, it is clear that the majority of researchers disagree with Teng's study [3], and researchers have conducted studies on students from different races, countries, and regions and concluded that there is a strong association between the occurrence of BFRBs and stress and emotional states and that the frequency of BFRBs increases with the increase of stress, tension, boredom, and other emotions.

2.2. BFRBs and Mental Illness

In addition to stress and emotional states, research has indicated an association between BFRBs and mental illness. According to La Buissonnière Ariza and other researchers' study in Johns Hopkins All Children's Pediatric Psychiatry and the University of South Florida (USF) Rothman Center for Pediatric Neuropsychiatry, the results of a statistical study of selected patients aged 9-17 years showed elevated rates of BFRBs in children in this report, with more than 30% of parents and children reporting BFRBs at frequencies above extreme levels, internalizing and externalizing symptom severity were positively correlated with BFRB severity [15]. At the same time, the Sellers, La Buissonnière Ariza and their colleagues' study showed that BFRBs are very common in adolescent youth with anxiety and obsessive-compulsive disorders and are used by these youth to avoid or alleviate distress [11]. For children, according to Ghanizadeh's research article, among children with psychiatric disorders, all boys and 81% of girls in the clinical sample suffered from at least one of the psychiatric disorders, and these children bit their nails along with the stereotypical behaviors of biting their lips and banging their heads. Children with hair-pulling behaviors also exhibited skin-picking and nail-biting behaviors [4].

The results of these experiments and studies describing BFRBs show that the presence of BFRBs and the accompanying remaining comorbid symptoms are very common in children with psychiatric disorders and are more likely and frequent than in children without diagnosed psychiatric disorders.

3. THE IMPACT OF BFRBs ON STUDENTS

A survey of orthodontic treatment in boys and girls aged 13-15 showed that nail-biting habits led to teeth root resorption in 45% of the patients surveyed [20]. Another survey in Saudi children showed that nail biting was the most common oral parafunction (27%) and led to temporomandibular disorders, with females reporting the behavior more frequently than males at similar grade levels and the frequency of nail biting increasing with age [16]. On the other hand, hair pulling was the main cause of nonscarring alopecia of uncertain etiology in most adolescent girls.

According to Ghanizadeh's article, parents or other family members are shamed when children bite their nails, and children or adults who bite their nails are ridiculed or shamed for doing so. Parents may punish, threaten, or ridicule the child for nail biting to correct the behavior. However, this behavior can increase the child's stress level and increase nail-biting behavior [4]. Another article by Ghanizadeh on the relationship between nail biting and mental health specifically presents the relationship between child nail biting and child mood in a community. The results of the study showed that children who bit their nails had lower prosocial behavior scores than children who did not bite their nails, meaning that children who bit their nails had lower social skills, while children who bit their nails scored higher on emotional and behavioral problems than children who did not bite their nails, meaning that children who bit their nails had more tantrums or bad behavior [20]. A study of Turkish students published in 1988 found that children who bit their nails were more likely to be verbally violent in school and that this was proportional to the severity of the nail-biting behavior [19]. In addition, another study on hair pulling explored how tic disorders and hair pulling were rated among peers. The study results showed that pronounced and frequent tics and hair-pulling behaviors prevented students from integrating with their peers and made them more likely to be kept away and discriminated against [21, 22].

When BFRBs are accompanied by other co-occurring disorders such as ADHD, students' experience with the disorder is even more difficult. A follow-up study showed that as children's symptoms became more pronounced over time, they became more socially awkward, peers and classmates perceived their behavior as making them unlikable and aggressive. Teachers perceived them as more problematic and prone to conflict with classmates, for which reason they were gradually ostracized and became withdrawn and difficult to communicate with [23].

4. CONCLUSION

All of the articles discussed above focus on the relationship between Body-Focused Repetitive Behaviors and students, and there are two main reasons for the emergence of Body-Focused Repetitive Behaviors. The first is because students appear due to stress and negative emotions like boredom, anxiety, and tension, and as stress and negative emotions increase, the frequency of BFRBs increases. This type of reason is the most common reason for students to have BFRBs in their studies and life, and as the time for exams decreases or the difficulty of studies increases, students increase the frequency of BFRBs during school. The second category of causes is based on the student's mental illness, such as ADHD, OCD, anxiety, depression, etc. Body-Focused Repetitive Behaviors usually occur as a common complication of the above mental illnesses and become more pronounced and severe as these mental illnesses become more severe. These two causes are largely agreed upon in the current research field. Although some researchers still disagree with the relationship between stress and negative emotions and BFRBs, the mainstream research direction explores the impact of stress and negative emotions on BFRBs and how much it affects them.

Current research on the effects of BFRBs on students is more oriented towards the study of physical disorders caused by BFRBs, such as mental damage, temporomandibular disorders, non-scarring alopecia of uncertain etiology, etc. In terms of psychological problems, previous studies have explored the association between BFRBs and personality traits and behavioral patterns and found that students with BFRBs experience more stress, anxiety, distress, and mood swings than students without BFRBs BFRBs somehow relax students. However, students with BFRBs were also ostracized and alienated by their uncontrolled behaviors, and their social skills were gradually diminished. Compared to the research conducted on physical illnesses, there is little research on students' psychological research and feelings.

The following conclusions can be drawn from previous studies, BFRBs are very common non-clinical disorders throughout the school years, BFRBs behaviors increase with students' increased stress and negative mood swings, and severe BFRBs behaviors can lead to physical illness, or severe BFRBs can lead to physical illness or self-harm. They can prevent students from integrating with their peers and being alienated. This article represents only a preliminary summary of the relationship and impact of BFRBs on students. I hope the current study will stimulate future research endeavors to advance the understanding of the psychological impact of BFRBs on students and raise awareness among parents and teachers of the less serious BFRBs that occur in everyday life.

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