Exploring Relationships between Peer Attachment and Adolescent Behavioral Problems

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ABSTRACT

The key objective of this article is to determine the effects of peer attachment on adolescent behavioral problems and the mechanisms involved, with a view to providing a theoretical basis for adolescent behavioral intervention. The article focuses on the online behavioral problems and traditional behavioral problems of adolescents. The former includes the Internet addiction and cyberbullying, while the latter is mainly classified as aggression, social participation disorders and substance abuse. Through a review of previous literature, this paper finds that peer attachment is negatively correlated with the occurrence of behavioral problems in adolescents, as adolescents with stronger peer attachments develop more pro-social behavior, which inhibits the development of problematic behavior. Future research should focus more on the mediating factors of peer attachment and adolescent behavioral problems to make the study more specific and precise and to improve the effectiveness of interventions for individual behavioral problems.

Keywords: Peer attachment, Adolescent behavior, Risk, Protection.

1. INTRODUCTION

According to the World Health Organization [1], adolescence is considered the period between the ages of 10 and 19. Adolescence is the prime period of physical, psychological, intellectual and personality growth in a person's life, a period of transition from infancy to maturity; at the same time, it is also a time of great physical, psychological, thinking, intellectual and behavioral changes and multiple crises [2]. In the process of growing up, adolescents are often influenced by various adverse physical, psychological, family, social and educational factors, which often lead to psychological and behavioral changes that go beyond the norm and deviate from or violate social moral, disciplinary and legal norms, which are considered as adolescent behavioral problems [3]. Youth behavioral problems include not only traditional behavioral problems such as bullying, social participation disorders and substance abuse, but also online behavioral problems such as social software addiction, online game addiction and cyberbullying, which are becoming more prominent due to the development of information technology. If neglected, behavioral problems in adolescents can become long-term and lifelong problems that seriously influence their physical and emotional health and well-being, preventing them from realising their potential and achieving their individual and social values [4]. Moreover, most adult behavioral problems are manifested to some extent during adolescence. Therefore, it is essential to explore protective factors to avoid behavioral problems and to promote the health and stability of individuals, families, schools and society [5].

An abundance of ecological studies has been conducted on the occurrence of behavioral problems in adolescents, including individual, family, school and social factors. Individual attachment relationships are one of these important factors [6]. According to Bowlby's [7] definition of attachment, attachment refers to an individual's emotional bond to another person. Ainsworth and Bell [8] classify attachment relationships into: secure attachment, anxious attachment and avoidant attachment. Secure attachment is negatively associated with the development of problem behaviors, while insecure attachment (i.e., anxious attachment and avoidant attachment) mostly predicts the development of problem behaviors in adolescents, but the effect on different types of problem behaviors varies, e.g., avoidant attachment has no significant effect on alcohol use. During adolescence, parent-child attachment and peer attachment are the most dominant attachments, with parents having the greatest influence on adolescent behavior, but peers being the most relevant to adolescent behavior development [9]. This paper focuses on the

impact of peer attachment on adolescent behavioral problems. Peer relationships are important during adolescence, and close peer relationships not only make adolescents feel emotionally supported and accepted, which leads to more pro-social behavior, but more importantly, close peer relationships increase an individual's resilience in the face of adversity, which is one of the reasons that make good peer relationships a protective factor in reducing and avoiding problematic behavior [10]. Most measures of peer attachment relationships use the Inventory of Parent and Peer Attachment (IPPA) [11]. Two parts of the scale measure attachment: one measures attachment to parents, and another measures attachment to peers. Both measure the level of perceived safety in relationships with parents and peers. It is based on factors such as the degree of anger, alienation or despair caused by unresponsive or inconsistently responsive attachment images. This scale has high reliability and validity and has been used several times in different studies. Most of the literatures reviewed in this paper use this scale to measure individual attachment to peers.

The paper is divided into two main topics: online behavioral problems and traditional behavioral problems. The relationship between adolescent behavioral problems and peer attachment is categorised and discussed in order to provide a theoretical basis for interventions for adolescent behavioral problems and to improve the effectiveness of interventions for behavioral problems.

2. BEHAVIORAL PROBLEMS RELATIONSHIP EXHIBITED IN THE VIRTUAL WORLD

2.1 Internet addiction

Research has shown that in the absence of an attachment object, individuals are more likely to transfer their attachment to a material object. The Internet, due to its own convenience, makes it an easier target for compensatory attachment than other material objects [12]. The two most prominent problems in internet addiction are online gaming and social software addiction. There is an increasing trend with time.

2.1.1 Online game addiction

Video games have quickly become one of the most widely used forms of media by children and adolescents [13]. The number of people addicted to online games is increasing every year, and gaming addiction was added to the list of addictive behavioral diseases by the World Health Assembly in 2019 [14].

Research has demonstrated that peer attachment type negatively predicts online gaming addiction: secure peer attachment and online gaming addiction are negatively correlated, while insecure peer attachment has a positive correlation. The main reason for this is that individuals with secure peer attachment types have high self-esteem and are adept at sharing their emotions with others, thus reducing the risk of behavioral addiction [7].

In recent research, authors have tended to examine the mechanisms of peer attachment and problem behavior, such as mediating factors adaptive coping strategies [15]. Estevez et al. [15] conclude that insecure attachment type was positively associated with maladaptive coping strategies which were positively associated with online game addiction. In addition, SS (Social Support) and SW (Social Withdrawal) coping strategies play a significant moderating role in peer attachment and online game addiction behaviors [15].

Indeed, the mediating factors in the study of the relationship between peer attachment and online game addictive behaviors are complex. This study is a good way to provide insight for future research directions to investigate more mediating factors and to include Longitudinal design in the experimental design to provide more detailed evidence to support future addictive behavior interventions.

2.1.2 Social-media (mobile phone) addiction

Internet addiction mainly involves inappropriate and excessive use of the Internet [16]. According to attachment theory, addictive or dependent behavior is in part a transference and compensation of an individual's attachment needs [17]. Stressful or distressing events often cause people who struggle to develop close relationships to use substances or behaviors to compensate for the lack of attachment they are unable to receive from their significant others. [17]. Much of the current discourse on social software addiction has focused on exploring the causes of addiction and developing hypotheses and tests from multiple perspectives.

The first category directly addresses the relevance of attachment and addiction. A comparison of the IPPA dimensions to the six BFA dimensions is presented in Figure 1, where the IPPA dimensions are shown as independent and the BFA dimensions as dependent [9]. Based on the results, adolescents with detached peer relationships had positive relations with all six dimensions of the BFAS whereas those with intimate peer relationships had negative ones. The reason for this is that good peer relationships promote the development of self-perception, self-esteem and self-confidence in adolescents, thereby inhibiting the development of addictive behaviors, and therefore peer attachment plays an important role in interventions for adolescent addiction.
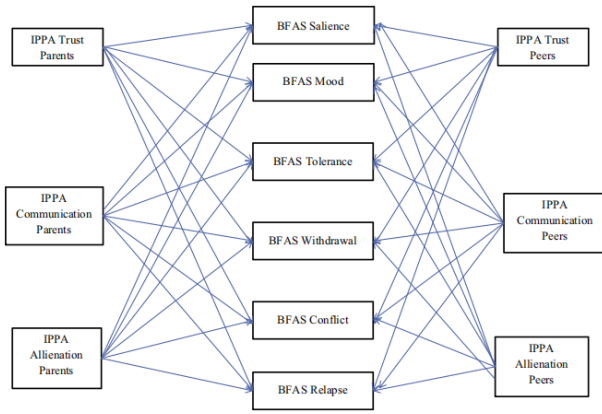
Figure 1. Proposed therical model predicting facebook addiction [9]

The second category focuses on factors that play a mediating and moderating role in attachment and addiction problems. As shown in Figure 2, according to Li & Hao [18], alexithymia plays a mediating role in the overall mechanism and mindfulness plays a moderating role. Specifically, parental attachment negatively predicts Mobile Phone Dependence (MPD). Alexithymia as a mediator of parental attachment affecting MPD in rural adolescents, and mindfulness as protective factors against MPD, i.e., adolescents with high levels of positive thinking exhibit less MPD behavior. The reason for this is that individuals with alexithymia have a reduced ability to recognise, analyse and express emotions, which makes it difficult for them to express themselves and to communicate with others in the real life, leading them to prefer to communicate in the virtual world and eventually develop social software addiction. Positive thinking can enhance an individual's well-being by boosting their positive emotional experience. Individuals with high levels of positive thinking may suffer from alexithymia, but show less symptoms of social software addiction due to the moderating effect of positive thinking. However, it is important to note that this article uses the IPPA scale, but focuses on attachment levels with parents. Whether or not alexithymia and mindfulness play the same role in peer attachment is something that needs to be further studied and measured.
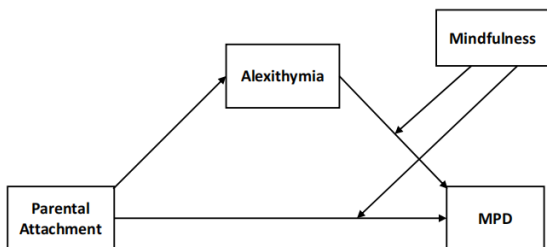
Figure 2 The hypothetical structure model. MPD, mobile phone dependence [18]

The third category, represented by the study of Chu et al. [19], focuses on adolescents' dependence on mobile phones in a broader educational context, in which he divides the factors influencing mobile phone dependence into direct and indirect factors. self-esteem and aggressiveness are the direct factors, affective parenting attitude and peer attachment were the indirect factors. In the experiment, each factor was tested separately on a scale and the model's goodness of fit, fitness, and path coefficient were examined. The results show that peer attachment demonstrates an indirect effect on smartphone dependence by moderating adolescents' self-esteem and aggression levels, and that high levels of peer attachment can reduce the possibilities of them developing behavioral problems and contribute to psychological well-being [19].

In summary, in the study of the relationship between peer attachment and mobile phone addiction, the cross-sectional design was mainly used to explore the different factors influencing mobile phone addiction, indicating the importance of peer attachment to adolescent mobile phone addiction. Future studies should focus on peer attachment interventions and their effects, and use longitudinal design to improve the behavior of adolescents with mobile phone addiction, thus enhancing their physical and emotional health.

2.2 Cyberbullying

Bullying and victimisation has become a global public health problem, with 30% of adolescents affected according to United Nations Educational, Scientific and Cultural Organization (UNESCO). Bullying and victimisation are associated with a range of social adjustment problems and even delinquency, which can be a serious impediment to the physical and psychological health of adolescents [8]. In recent years, with the popularity of the Internet, cyberbullying has become a major type of bullying behavior.

In relation to the influence of peer attachment on cyberbullying, Wright et al. [20] demonstrated that peer attachment negatively correlated with the perpetration and victimisation of cyberbullying. In line with the previous friendship protection hypothesis, Hodges et al. [21] concluded that adolescents who have high quality friendships are better able to avoid behavioral problems such as bullying. It is worth acknowledging the particular focus on gender in Michel's study, namely that in collectivist countries, girls showed a stronger negative correlation than boys. In addition, bullying, as a type of problem behavior, has complex causes, so recent studies have used an ecological perspective [6,20], through the analysis of multiple factors such as family, school and peers, to intervene more effectively in this problem behavior.

At the same time good peer attachment not only prevents cyberbullying but even protects in delinquency, Agnew's [22] GST theoretical framework suggests that negative emotions from stress can further lead to criminal

behavior. Reactions to crime take the form of externalising reactions (i.e., behavior that harms others through violence) and internalising reactions (i.e., behavior directed at oneself, like substance abuse and self-harm). Research suggests that peer attachment is protective and supportive, and further that perceived attachment and support from peers reduces the risk of struggle between cyber victims and cyberbullying victims, and that positive social attachment is beneficial for both cyber victims and victims of cyberbullies and cyberbullying [23].

It is important to highlight that the mediating factors between peer attachment and cyberbullying is not well researched, with existing research focusing on the mediating role in parental attachment and cyberbullying [24], so the mediating role in peer attachment and cyberbullying could be a direction for future research.

3. BEHAVIORAL PROBLEMS EXHIBITED IN REAL LIFE

3.1 Aggressive behavior

Biopsychology has shown that the prefrontal lobe of the brain is closely linked to the control of aggressive behavior in individuals. Due to the immature development of emotional control in the prefrontal lobe of the adolescent brain, adolescents are prone to overreact to situations and engage in aggressive behavior. For this reason, it is essential to study the protective factors that avoid and reduce such behavior in adolescents on this biological basis. As adolescents seek independence from their parents during adolescence, the influence of peer attachments on their lives becomes more prominent [25]. Research on the relationship between peer relationships and adolescent aggression has focused on two main areas: (1) the predictive role of peer attachment on aggressive behavior [26], (2) the protective effect of peer attachment on reducing different types of aggression, such as domestic violence [27].

For the first type of study, Malonda et al. [26] have shown that adolescents with stronger peer attachments have better empathy and emotional understanding and develop more pro-social behavior, which has an inhibiting effect on aggressive behavior, thus reducing the production of aggressive behavior. For the second type of study, many specific aggressive behaviors were explored, such as adolescent-to-parent violence (APV) [27]. APV is initiated by adolescents to exert physical, emotional and financial control over their parents, to inflict pain on them for the purpose of emotional expression and revenge [28]. Nam et al. [27] used mainly conflict tactics scales (CTS) [29] to measure APV behavior in adolescents and used univariate and multiple regression analyses to conclude that positive peer attachment plays a significant role in the development of

APV behavior. APV behavior was significantly buffered by positive peer attachment.

Collectively, the predictive and protective effects of peer attachment on aggression have been well researched, but research on the effects of peer attachment on specific types of aggression is insufficient and could be a direction for future research to better refine and improve interventions for adolescent aggression.

3.2 Social participation barriers

There are two main types of social participation barriers: (1) lack of essential social skills and methods to cope with social relationships and social conflict (2) overreaction to social events and even the development of aggressive behavior [30]. Research on the relationship between peer attachment and social engagement disorders has focused on the exploration of mediators, such as empathy, alexithymia, etc.

Firstly, Schoeps et al. [31] found that peer attachment was positively correlated with empathy levels which were negatively associated with social engagement barriers. In other words, adolescents with strong peer attachment have higher levels of empathy, are better able to identify and understand the emotional needs of their peers, and have lower barriers to social participation. In contrast, adolescents with detached peer attachment, who show more mistrust and rejection of peers, have lower levels of empathy, show more anxiety, apathy, or aggressive behavior, and have higher barriers to social participation.

Alexithymia refers to the identification and description of emotions in oneself and others. In a study of the mediating factors alexithymia on peer attachment and social behavior disorders, Sechi et al. [32] suggest that insecure attachment relationships lead to high levels of alexithymia, which leads to further social behavior disorders.

In the research on peer attachment and social engagement disorders, there are more factors to be explored beyond the two mediating factors mentioned above. The study of mediating factors will provide evidence to further improve the level of interventions for adolescent social engagement disorders.

3.3 Drug abuse

According to the United Nations Economic and Social Council's Commission on Narcotic Drugs on the world situation of substance abuse, particularly among children and adolescents, the rate of substance abuse is significantly higher among youth than among other age groups [33]. One of the most important reasons for this is the risk-taking nature of adolescents and their high desire to seek social acceptance.

With regard to adolescent substance abuse, research has focused on two main areas, alcohol and drugs. First, regarding the relationship between peer attachment and alcohol consumption, Anderson et al. [34] classified peer attachment as secure attachment, anxious attachment, and avoidant attachment [8], and related it to alcohol consumption in separate Zero order correlations and hierarchical regression analysis. The results showed that securely attached individuals drank the least amount of alcohol, anxiety attachment significantly predicted increased drinking, and avoidant attachment did not significantly predict increased drinking. The reason for this is that anxiously attached people want to feel accepted by their surroundings and experience intimacy, and they consume more alcohol under social pressure, whereas people with avoidant attachment show more distance from their surroundings, are less inclined to fit in under social pressure, and generally do not drink more alcohol. The two attachment types, secure and avoidant attachment, have average internal demands in terms of desire for acceptance by the environment and therefore consume less alcohol than anxious attachment.

With regard to drug use, Walters [35] highlights that positive peer relationships act as protective factors to avoid and reduce adolescent drug use, that negative peer attachments are risk factors for adolescent drug use, i.e., lower peer attachment levels are associated with higher drug use rates.

Overall, psychological interventions to adjust the level of peer attachment of adolescents in insecure peer relationships can reduce their levels of alcohol and drug use [34,35].

4. LIMITATIONS AND PERSPECTIVES

In summary, there are four main limitations to recent research.

Firstly, existing studies have adequately explored the effects of peer attachment on adolescent behavioral problems, but the mechanisms that exist between the two variables, such as mediating factors, have not been adequately discussed, which is the key to improving the effectiveness of interventions in later stages.

Secondly, most of the studies used cross-sectional research designs, and such experimental designs help to find the correlation between the peer attachment and adolescent behavioral problems at one-time point. However, more longitudinal designs are needed to enhance the credibility of the findings, to further test the validity of the findings, and to verify the effectiveness of behavioral problem interventions.

In addition, most of the reports on behavioral problems are based on self-reports such as questionnaires and scale tests of adolescents, and individuals may not truly reflect the data due to social expectations and other factors.

Finally, in the study, there is no further classification of adolescent groups, such as rural vs. urban, boys vs. girls, etc. Due to the different levels of economic development in urban and rural areas, the socio-economic and school-family environments in which adolescents live are very different, and if the research on urban adolescent groups is applied to rural groups, it is prone to poor generalisability, so more attention should be paid to the relationship between the peer attachment and behavioral problem in rural adolescent groups. The study in female groups is also a direction for future research.

5. CONCLUSION

This paper reviews the literature on the effects of peer attachment on adolescent behavioral problems and find that peer relationships are a predictor of whether adolescents develop behavioral problems such as internet addiction, cyberbullying, aggressive behavior, social participation barriers and substance abuse, and are also a protective factor in avoiding and reducing the occurrence of adolescent behavioral problems. The mechanism of action is that adolescents who are in good peer relationships have high self-esteem, self-confidence, and are good at sharing their emotions with others, which leads to positive emotional experiences and feelings of well-being, and increases pro-social behavior, thus avoiding and reducing the likelihood of their behavioral problems. This finding demonstrates the importance of strengthening peer attachment support, which not only promotes the health and well-being of individual adolescents, but also promotes positive development of family, school and society.

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