A Theoretical Probe into the Common Factors of the Internet Addiction and Adolescent Major Depression Disorder

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ABSTRACT

With the prevailing trend of economic globalization, the Internet connects people all over the world. At the same time, the rate of adolescent depression has shown an upward trend and becoming a worth noting topic. Is there a connection between the two? In the existing studies, some researchers have suggested that Internet Addiction Disorder (IAD) is related to the occurrence of depression, but very few studies involve the analysis of the cross-factors of the simultaneous increase in the proportion of Internet Addiction and depression. Based on the existing theories, this article will systematically introduce what IAD and MDD are, and examine the cross-factors of IA and MDD, including family influence, the role of stress, as well as the interaction between self-esteem and IA and MDD. By analyzing these factors, this paper will make the relationship between Internet addiction (IA) and major depression disorder (MDD) clearer and stronger, providing more theoretical supporting evidence for the following scientific research exploring these two fields.

Keywords: *Adolescents, Internet Addiction, Major Depression Disorder, Family, Stress, Self-esteem.*

1. INTRODUCTION

Through the Internet, information has spread rapidly across geographical restrictions. In the face of the unknown and seductive Internet, preventing Internet addiction (IA) is a topic that must be addressed by adolescents who are gradually forming a stable worldview. While the Internet has brought enormous advantages to us, the phenomenon of IA has also brought potential threats to adolescents. Studies have shown that IA has seriously affected the physical and mental health, as well as social functions of addicts. It can result in frustration of academic work, confusion in social roles, weakening of moral sense and legal concepts, alienation of personality, etc. [1] At the same time, the proportion of teenagers with depression has shown an upward trend in recent years. The Pew Research Center in the United States has conducted statistics from 2007 to 2017 in response to the problem of depression in adolescents, which shows that the proportion of depression among adolescents in the United States has increased by 59% in the past ten years. There are gender differences. The proportion of girls diagnosed with depression is rising faster than that of boys, the two are 66% and 44%, respectively. [2] Both the problem of increasing

depression rate and Internet addiction are worth noting in the research of adolescents, and it makes the research in exploring behind causes significant.

2. THE DEFINITION OF INTERNET ADDICTION

Internet addiction (IA) includes addiction to social media, gaming, or online TV series. It is not only a phenomenon among the popularity but a disorder. IA is a compulsive-impulsive spectrum disorder that involves online and/or offline computer usages patterns featuring excessive use, withdrawal symptoms, tolerance, and negative repercussions. [3] To be specific, IA can bring dysfunctional results such as sleep disorders, mood problems, and poor concentration to individuals. From most scientists' perspectives, the mechanism of IA shares lots of common with substance use, particularly from a biological perspective that is related to neuronal processes. [4] Regarding the frontal lobe, the fMRI study shows the abnormalities of the dorsolateral prefrontal cortex, which is believed by scientists to be responsible for the control of inhibition. Some studies also proved the dorsolateral prefrontal cortex is critical in studying substance addiction, pointing out structural deficits and

functional abnormalities in individuals with substance addiction might be similar to those presenting with IA [5]. The social causes of Internet addiction are diverse. Most researchers believe that Internet addiction is the result of many aspects such as physiology, psychology, personality, and society.

3. A BRIEF INTRODUCTION OF MAJOR DEPRESSION DISORDER

In recent years, there have been more and more news reports about the suicide cases of adolescents with depression, which not only reflects the increase of MDD but also indicates the improving level of social attention. Depression is a mental disorder characterized by persistent sadness and a lack of interest or pleasure in previously rewarding or enjoyable activities. [6] Individuals with depression are likely to experience difficulty in sleep, appetite, tiredness, loss of interest in normal activities, and poor concentration. According to WHO, depression is the leading cause of disability and contributes greatly to the global burden of disease. Regarding the causes of depression, it is a complex process that involves the interactions between social, psychological, and biological factors. [6] For example, abuse (including abuse in physical, sexual, or emotional), death or a loss of a loved one, genes, and even gender as a woman can make you more vulnerable to depression. In this paper, I will focus on a social perspective to examine the potential common causes between Internet Addiction (IA) and Major Depression Disorder in the adolescent group, making the relationship between the two more clearer and has more scientific significance for future research.

4. A DISCUSSION OF COMMON FACTORS IN IA AND MDD

Looking at various domestic and foreign articles discussing the causes of adolescent depression and the analysis of Internet addiction, we will find that there are some common factors in IA and MDD, including family support (unconditional positive regard, education level of parents, marital status of parents), the role of stress, and the mediating effect of self-esteem.

4.1. Family support

The family support here includes the subjective positive support of family members to the child (such as whether parents give the child unconditional love) and the impact of the family's objective environment on the child's growth (such as parent's education level, marital status, family socioeconomic status, etc.) The quality of family support is a common factor leading to depression and Internet addiction. It can effectively reduce the risk of depression in adolescents and at the same time inhibit the phenomenon of Internet addiction.

4.1.1. Unconditional positive regard

The concept of unconditional positive regard is the concept of humanistic psychology proposed by the famous psychologist Carl Rogers, which is the basic acceptance and support of a person regardless of what the person says or does. When parents show "unconditional love" to their children, "My love for you comes from you as a person. I believe in your potential. Your achievement will not be a limitation of my love for you. My love for you is unconditional.". The child will show high self-esteem and strong self-confidence, which is conducive to the adolescents' stable self, reducing the risk of being depressed. Psychologist Diane Baumrind proposed four different parenting styles in 1960, namely Authoritative, Authoritarian, Permissive, and Neglectful. These four parenting styles explain the differences in behavior patterns, cognitive styles, and interpersonal relationship patterns of children growing up under different parenting styles. Baumrind measured the parenting styles in two dimensions: demanding and warm & accepting. Parents who show unconditional love to their children have higher ratings in the warm direction, and the humanistic concept proposed by Rogers emphasizes "unconditionality", that is, my love for you will not be limited by your own conditions, which fits into "Authoritative" type parents. From Rogers' perspective, parents who show unconditional positive regard to their children are less likely to become Neglectful and Authoritarian parents. Both these two parenting styles are harmful to children. Children with neglectful and authoritarian parents are likely to have unstable emotions (too aggressive or insecure), which can put them become vulnerable to IA and MDD. So deduced from the theories of Rogers and Baumrind, unconditional love from parents is a cross factor of Internet addiction and depression because they have enough parental attention, which reduces the mentality of seeking attention in the virtual online world. And the warmth of parents facilitates effective parent-child communication and reduces the possibility of depression.

4.1.2 Education level of parents

Some Chinese researchers have found that the lower the father's education level, the more likely children are to become addicted to online games. [7] A researcher from this study, Zhu Jian jun, believes this is related to a father's traditional role in the family. Father is often representing the authority figure in a family. His temperament, character, moral quality, behavior, and education level all have an important influence on the physical and mental development of children. [7] From this experiment, we can infer if the father is capable of restraining his own behavior and has a good conduct code, the child will be subtly guided by the father's image of "authority" and have a good behavior pattern and reducing the possibility of addiction to online games.

Fathers with a higher education level tend to give their children more positive guidance, including reasonable entertainment, self-control, good codes of conduct, and healthy values. These virtues can enhance the sense of personal worth and accomplishment, preventing adolescents from having emptiness, pessimism, and negative consciousness frame during their growth, to achieve the purpose of reducing the occurrence of depression.

4.1.3 Marital status of parents

Parents' marital status is another common factor leading to IA and MDD. Studies have shown that in families with married parents, children can be given full attention and are supported by both parents, which will bring children a warmer atmosphere, a better communication style and eventually results in a high-quality parent-child relationship. They tend to have a low tendency to become addicted to the Internet. However, children whose parents are in unhealthy marriages status are likely to experience more family conflicts and contradictions in their growth process and tend to be ignored by their parents, thus feeling less family warmth, parents' response and support, leading to adolescents produce a sense of insecurity, gaining attention and a sense of accomplishment in the virtual world, makes it more addictive to online games. [7] This theory is a good explanation of how the quality of parental marriage affects the behavior of adolescents with Internet addiction, but the study itself has a major flaw. The study has an established schema, that is, there is no high-quality parent-child communication in divorced families. And the researcher assumed there are more conflicts, contradictions, less family warmth, and parental response in divorce families. This prejudice will affect the accuracy of the research results and cause deviations between the research results and the facts. In terms of the occurrence of depression, the marital status of parents can also affect the occurrence of depression in adolescents. Studies have shown that children living in divorced families are more likely to suffer from mental illness, especially anxiety and depression [5]. The reason is that some children whose parents are divorced have an unnecessary sense of self-blame when facing family conflicts. And often the occurrence of depression is also closely related to excessive self-blame.

4.2 The Role of Stress

Stress refers to the process in which individuals perceive, evaluate, and respond to harmful, threatening, or challenging events or stimuli (Sinha, 2008) [7] Stress can also lead to IA as well as MDD. Some researchers believe that when individuals are under too much pressure, they turn to the internet to seek support and emotional satisfaction, which causes an over-reliance on the virtual world, leading to Internet addiction.[8]Wei

Hua (201I)'s research found that stress can affect addiction through the mediating effect of online games to escape motivation. [9] In real life, students are under various pressure, and they relieve it in various ways, such as seeking social connections and attention on the internet, engaging in entertainment activities. The Internet can help them achieve these goals. Greater pressure produces a stronger incentive to use the Internet, and it results in a higher tendency to become addicted. Can stress increase the occurrence of depression? Yes. Studies have shown that there is a positive connection between stress and the occurrence of depression. [10] The Hopelessness Theory explains how stress affects a person's cognitive framework, thereby making the individual more likely to suffer from depression. It postulates that a negative inferential style will contribute to depression especially when individuals encounter negative life events. [11] This theory explains that people in a pessimistic cognitive framework will be more likely to become victims of depression, especially when individuals encounter negative and stressful life events. Therefore, an individual's handling of stress will be an important factor in whether Internet addiction and depression occur. This common factor further strengthens the correlation between Internet addiction and depression.

4.3 The Mediating Role of Self-esteem

Self-esteem is another common factor that simultaneously affects the occurrence of Internet addiction and depression. Rosenberg pointed out in 1965 that self-esteem refers to the difference between an individual's actual self and ideal self. [12] Self-esteem is not a factor that directly leads to Internet addiction, but it plays an intermediary role in the formation of Internet addiction. Senol and Durak proposed that self-esteem is the best predictor of Internet impulsivity, and the higher the Internet impulsivity, the more likely an individual is to become addicted to the Internet. [13] Indeed, people with low self-esteem tend to have a greater gap between the actual self and the expected self. They are more likely to turn to the online world to seek virtual self-image and interpersonal satisfaction to gain a sense of accomplishment, satisfaction, and belongingness that is hard to obtain in the real world. Some researchers have provided more evidence for the mediating role of self-esteem in the process of Internet addiction. In the study of Wei Hua et al., they pointed out that the higher the individual's subjective well-being, the greater the ability of self-esteem and self-control, which leads to a lower possibility for Internet addiction. [14] Also, there is plenty of empirical evidence that proved that low self-esteem is also tightly related to depression. For example, the famous Vulnerability Model, which suggests that low self-esteem is a significant causal factor for individuals developing depression under stressful life events. [15] In Orth and Robins's research, they provided a picture used

to illustrate a series of theories that proved the relationship between low self-esteem and depression. (Figure 1) Also, since self-esteem is a measuring value determined by the gap between individual expectancy and social expectancy, low self-esteem tends to develop a negative self-schema, which is a pessimistic and hopeless belief about themselves. According to Beck, negative self-image is an example of the cognitive triad, which is an automatically thinking about self, world, and future. And he proposed that the cognitive triad is a part of the mechanism of depression. So low self-esteem becomes a mediating character in contributing to depression in Beck's induction, just like its role in Internet Addiction.
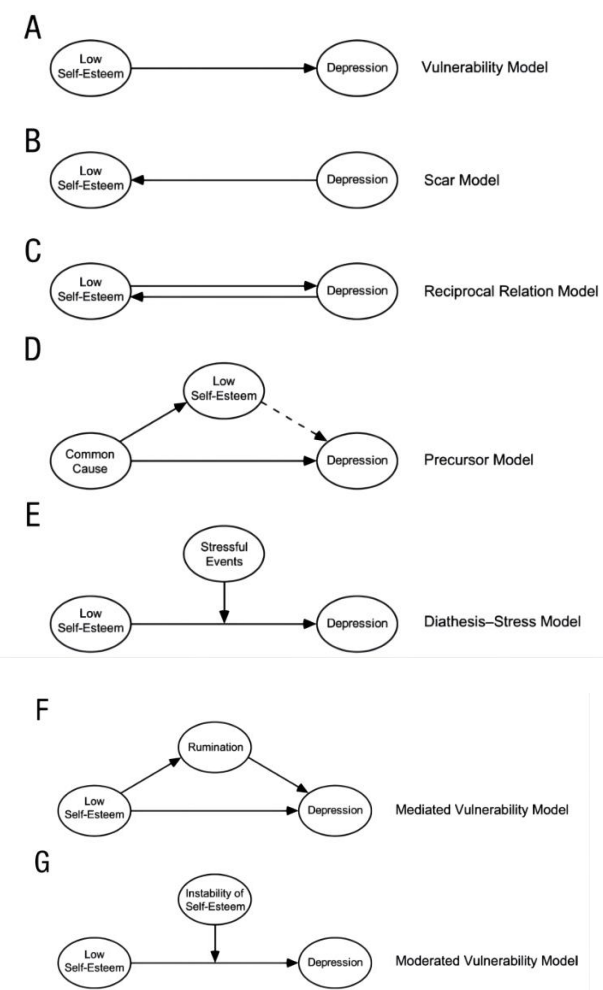

Figure 1 Different models illustrating how does self-esteem causes depression

5. CONCLUSION

Through theoretical analysis of family (including parents' unconditional love for their children, education level, marital status), stress, and self-esteem, more common factors related to Internet Addiction and Adolescent Major Depression Disorder have surfaced, making the relationship between the two firmer. From the family perspective, children with unconditional love from their parents are less likely to suffer from depression. Authoritative parents give teenagers more unconditional love, which significantly reduces the possibility of teenagers suffering from depression and Internet addiction. Also, the education level of parents can affect the occurrence of IA and MDD. The image of authority in the family is considered to have sufficient influence to affect the adolescents' behavior and cognitive patterns. In addition, adolescents who live in a family with healthy marital status generally receive parents' timely attention and response during childhood. They are likely to experience fewer family conflicts, have a stronger sense of security, and do not have unnecessary self-blame due to family breakdown. They also tend to experience less sense of emptiness than children from divorced families, avoiding finding satisfaction in the virtual world of the Internet. Stress is another factor that associates IA and MDD. Teenagers escape the pressure of real-life by gaining attention or timely rewards from the virtual online world, which once again aggravates the possibility of Internet addiction. The level of Self-esteem is also related to MDD and IA. The relationship between MDD and self-esteem was proved by lots of psychological theories, like vulnerability theory and Scar Model. Also, lower self-esteem is related to higher Internet impulsivity, which makes an individual become addicted to the Internet more easily.

However, how strong the relationship is and whether there is a causal relationship between the two still requires multiple data support. This article analyzes the existing papers on Internet addiction and adolescent depression and finds out the common factors of the two to strengthen the positive connection between adolescent depression and internet addiction. But this article is based on the existing theories to make induction, more data can be provided to prove the analysis. Internet addiction and Adolescent depression are still on the rise in recent years, especially the increasing number of youth suicides that cannot be underestimated. In the future, it is still of great research significance to explore the synergy between Internet addiction and the increase of depression in adolescents.

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