THE INFLUENCE OF TECHNOFERENCE ON ADOLESCENT SOCIAL BEHAVIOR: THE MODERATING EFFECT OF PARENTAL INTERFERENCE

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Abstract

In today's Chinese society, with the continuous improvement of the national economic level, there is an increasing probability that people's families have mobile phones, tablets, computers, game consoles and other electronic technology products. Meanwhile, with the development of network technology and the impact of the novel coronavirus epidemic, online teaching has gradually appeared in schools at all levels. Therefore, the opportunities for teenagers to have access to scientific and technological products continue to increase. In the subdivision of ecosystem theory, the impact of scientific and technological interference on children can be well explained. Moreover, through Cognitive Development Theory, it can be explained that teenagers will change their cognition when they learn online or know illegal information such as pornography and violence after being affected by relevant influences. However, the influence of parents' different interventions on adolescents' social behaviors is worth exploring, especially in the context of Chinese education model, whether children can adjust their correct cognition and reduce problematic social behaviors needs to be further explored.

Keywords: Technoference, Interference, Social Behavior, China

Introduction

According to the 50th Statistical Report on the Development of the Internet in China released on August 31, 2022, the number of Internet users in China has increased to 1.051 billion by June 2022, an increase of 19.19 million compared with December 2021, and the Internet penetration rate reached 74.4%. However, as the mobile Internet becomes more and more convenient, more and more adolescents are addicted to their mobile phones and have no time to pay attention to their studies and family and friends. According to the 2020 National Research Report on Internet Use of Minors, 89.9 percent of them regularly used the Internet to study in the past six months, and listening to music and playing games online are still the main recreational activities for minors(*50th Statistical Report on China's Internet Development,2022*) .Based on the report on *Chinese Minors' internet usage (2021)*, there are significant differences between urban and rural minors in their internet preference and usage, attitude and behavior. Rural minors have a higher

percentage of internet security encountered issues. There are younger adolescent accessing the internet these days and the utilization rate of mobile phones and other mobile terminals are increasing, and problems such as excessive access on entertainment and internet addiction are prominent. Video applications are most popular among left-behind adolescent, while internet consumption such as online game consumption by minors is more common(Qiu，2006；Wang,2017).

According to the Report on Internet Use of Chinese Minors (2021), there are significant differences between urban and rural minors in Internet preferences and use, attitudes and behaviors. Rural minors have a higher proportion of Internet security problems. The age at which minors first go online is falling, and as a result, more and more young children are going online. However, the use of mobile phones and other mobile terminals is getting higher and higher, and problems such as excessive entertainment and Internet addiction are prominent. Video apps are most popular among left-behind children, while online consumption such as online games by minors is more common. The age at which the younger generation comes into contact with adult programs is decreasing year by year. Minors spend more time learning online, and the content is not monitored; Minors' participation in online communities has obvious characteristics of subdivision, individuation, diversification and "people (things) clustering", and there are problems such as entertainment, circle stratification, group polarization and irrational consumption On the one hand, the Internet conveniently meets the social needs of adolescent, besides, it also leads to other issues such as the influence of unhealthy content and playing mobile phone for a long time, lack of exercise or even stay up late often leads to a decline in physical fitness(Sahu,Gandhi&Sharma,2019;He,Wan&Hui,2019) The overall level of minors' internet literacy is not high, and they are easily influenced by individuals, families and schools. Cyber bullying, minor internet celebrities, short video addiction and other minor internet use has creates issues. Surfing the Internet takes up energy and time of middle school students, 47.9% of them prefer to stay at home compared to adolescent before internet becomes a part of their lives and exposing to electronic screens for a long time will affect their eyesight. 43.5% of middle school students believe their eyesight deteriorates rapidly due to the use of computers and mobile phones, and 59.2% of middle school students are nearsighted.(Report on Internet Use of Minors in China ,2021) Song (2020) argued that nearly 20% of cell phone users are adolescents aged 10-19 (China Internet Information Center, 2020), and clinical research studies show that the rate of cell phone addiction among adolescents even reaches 25% (He, Wang, Hui, 2019), which is a serious problem, adolescents are in adolescence, full of curiosity about everything, and their self-control to discriminate, etc. is weak. It needs more attention, and the environment provided by school, family, and peers can influence internet addiction (Tham et al., 2017; Pambreni et al., 2019; Wei et al., 2019; Herath et al., 2023), and internet addiction for can make adolescents dependent as well as impulsive for internet use, and this dependence and impulsiveness can cause damage to the social function of individuals (Zhang,2021).

Literature review

Parents parenting is important for the growth of adolescent, parents, either in life or adolescent during the study, they will have an effect of involuntary, parents' behavior, language, and attitude towards the things and the way for their adolescent is a kind of reference and learning goal. Therefore, to carry out the relevant research is very necessary. In the social Information processing theory of Salancik and Pfeffer in 1978, parents' mode of managing and educating their adolescent has a significant influence on the society and their own psychological cognition (Pfeffer,1978). Since the 1990s, parenting has attracted increasing attention year by year. Among them, foreign scholars have various understandings of parenting, such as Nancy Darling, who believes that parenting is a transmission of emotion (Denise,1993). Martin, with similar understanding, believes that parents' response to their adolescent's demands and feelings is the way of parenting. Coleman and Karraker defined in the process of emotional transmission that the situation is reflected in the process of parents' education and rearing of adolescent (Udriyah et al., 2019; Coleman, & Karraker, 2020; Horani et al., 2023).

In this study, the discussion on adolescent's mobile phone use mainly focuses on the communication barriers caused by the high frequency use of mobile phones and other media or the behavior of addiction to mobile phones. In the early stage of the popularity of mobile phones, people's cognition mainly lies in the convenience of communication, improve efficiency and reduce the communication barriers caused by distance. However, due to the popularity of mobile phones and other media, the phenomenon of people being addicted to mobile phones has become more common. Macquarie's new edition has a word for smartphone addiction: phubbing, a blend of "phone" and "snubbing." Dependence on mobile phones will make individuals prone to reduce their self-control ability and produce negative behaviors (Shi, 2009). In an epidemic environment, group-level panic leads to a greater degree of discrimination as well as rejection of people from the epidemic area (Yu, 2020), and then in social rejection can negatively affect people psychologically and physiologically (Du, 2008). It also positively predicts college students' cell phone dependence (Xu, et al., 2021), and when the lower the individual's self-esteem level, the higher the dependence on cell phones (Zu, Jing, 2016). The home isolation learning environment caused by this epidemic has also led to addiction to electronic products including cell phones (Hu, & Chen, 2020; Jiang, , 2020), and in today's society, there is not only the influence of mobile phones on people's communication, but also the technoference of electronic products such as computers, tablets, and game consoles on parent-child relationship (Techno+fence). Technoference refers to the interruption or interference caused by the intervention of electronic devices or mobile technology devices in daily life. This phenomenon can occur in a variety of interpersonal interactions, such as partner, friend, colleague, parent-child, etc. Technoference includes phubbing, which is a passively triggered communication condition. Phone snubbing behavior (phubbing) is a branch of technical interference, is the relationship of inclusion, with initiative. This study focuses on the problem behaviors of adolescent under the influence of relevant behaviors.

For the study of adolescent's misbehavior, scholars at home and abroad focus on the factors that affect adolescent' misbehavior. It is generally believed that solving relevant factors can well

reduce or alleviate problem behavior. This study studies adolescent's externalizing behavior under different parenting patterns, so it focuses on the external influencing factors.

Adolescent Technology Interference and Social Behavior

Since 2000, Chinese scholars have primarily focused on the research of technoference, with a major emphasis on the topic beginning in 2020. This research mainly revolves around adolescent smartphone addiction and the impact of technoference on parent-child relationships. However, foreign studies not only consider the technological interference experienced by children but also delve into the effects of parental technoference on their children.

In the course of adolescents' growth, parental technoference has been associated with language and motor developmental delays in children (Davidovitch, 2018). Nevertheless, there are inconsistent findings, as some studies suggest that active co-use can contribute to an accumulation of vocabulary in infants (Corkin et al., 2021). However, the majority of research indicates that parental technoference negatively impacts the quality of children's development (McDaniel et al., 2018). Technoference leads to reduced direct interaction between parents and children, affecting the emotions between interaction partners (McDaniel & Drouin, 2019).

Concerning technoference in adolescents, most studies suggest that adolescents subjected to technological disruptions are more likely to exhibit an increase in adverse behaviors. Zhao (2022) found that over time, adolescent internet addiction can exacerbate depressive symptoms and aggressive behavior. Moreover, depression can serve as an intermediary factor in predicting adolescent addiction to electronic devices (Deng, Wang, Yang, Zhou & Li, 2021). High-intensity internet use has also been linked to the occurrence of negative outcomes such as interpersonal conflict and depression (Coyne et al., 2019; Wulandari et al., 2023; Ranawaka et al., 2023). Furthermore, research indicates that internet addiction can predict online sexual victimization. Specific factors predicting adolescent exposure to explicit messages, online sexual extortion, and victim enticement include internet addiction symptoms and geek behaviors. Additionally, physical self-esteem and sexting act as mediating factors in the relationship between internet addiction and adolescent online sexual victimization. These study findings underscore the importance of prioritizing the psychological well-being of adolescents in their online activities, considering relevant risk and protective factors (Tamarit et al., 2021; Zheng et al., 2023; Sudha et al., 2023). Furthermore, Zhao (2021) found that internet addiction is a risk factor for suicidal behavior among adolescents with depression. In terms of physical health, smartphone addiction can potentially lead to suboptimal cervical health (Tian, 2019), and mobile radiation has inhibitory effects on the metabolic function of the human frontal lobe (Kwon MS, 2011). In conclusion, reducing technoference in parent-child relationships contributes to the healthy development of adolescents.€

Adolescent technoference and parental mediation

In order to reduce teenagers' bad behaviors caused by electronic technology interference, parents often use parental mediation methods. Studies have shown that parents' active media mediation can improve the quality of communication between parents and their children by enhancing their children's willingness to engage in digital interactions. Parental mediation refers to parents, as managers and educators of teenagers, taking action to harness the positive aspects of

media and reduce the risk of negative behaviors resulting from internet and media exposure. The theory of parental mediation posits that parental intervention is a strategy that helps reduce children's internet addiction, and different methods yield varying results to different degrees. Among these, Nikken and Jansz categorized parental mediation into five types: (1) active mediation; (2) content restrictions; (3) co-use; (4) parental monitoring; (5) technical mediation. More research has focused on restrictive mediation, active mediation, and co-use. Restrictive parental mediation is highly likely to create psychological resistance among adolescents. Under strict parental control, adolescents may feel restricted and consequently have a higher risk of engaging in hostile or undesirable behaviors. It is evident that parental mediation significantly influences teenagers' technology usage. Additionally, some studies have found that parental monitoring can reduce the time teenagers spend using the internet for entertainment and social interaction. Reasonable parental mediation can effectively improve children's digital media usage behavior, and a positive parent-child relationship further enhances the impact of mediation on teenagers' technology usage. In their study, Fam et al. (2023) found that in terms of mediation types, the three mediation approaches yielded different results. Specifically, active mediation and co-using mediation were found to significantly influence problematic media use, while restrictive mediation did not have a significant impact on problematic media use behaviors. Therefore, when discussing adolescent technology interference and parental mediation, it is essential to take into account the method of parental mediation, as it contributes to a more accurate understanding of the relationships between variables.

Previous studies have suggested that parental intervention significantly influences adolescents. Positive interventions are negatively correlated with adolescents' smartphone addiction. However, a restrictive parenting style yields different results. Some studies have found that parental restrictions can reduce smartphone addiction behaviors among teenagers, while others have indicated that such restrictions might increase adolescents' smartphone addiction. There is a bidirectional relationship between maternal corporal punishment and children's externalizing behaviors (Xing, 2013). Positive intervention strategies and time-restriction interventions are helpful in reducing children's internet dependence (Liu, 2023). At the same time, restrictive parental intervention may increase adolescents' state psychological impedance, which has adverse effects on their development (Peng, 2022). Most scholars researching parental interventions have focused on children's internet addiction. Additionally, adolescent internet addiction exacerbates symptoms of depression and aggressive behaviors (Zhao, 2022).

In previous studies, research on parental mediation as a moderating variable has been limited. However, some related research may provide a direction and could be considered a research gap for future studies. Typically, the focus has been on related variables. For instance, Han (2022) found that parental emotional warmth plays a moderating role in the latter part of the mediation model of technology interference between parents and adolescents. Existing research suggests that restrictive parental mediation can reduce adolescents' online activities while increasing their behavioral risks (Steinfeld, 2021), indicating a certain level of moderation effect by parental interference. Additionally, Karsay et al. found that parental interference can reduce the frequency

of children's nighttime smartphone use, thus protecting children from a decline in physical fitness. However, poorer physical fitness might lead to the spread of infectious diseases, increasing individuals' prosocial behavior due to the heightened threat of infectious diseases (Hu, 2022).

From the perspective of different parental mediation approaches, existing research has shown that various approaches yield different outcomes. Regarding children's internet usage time, collaborative mediation positively influences children's internet usage time on weekends. Conversely, proactive mediation and time-restricted mediation negatively affect children's internet usage time on weekends. Similarly, studies on children's internet dependency and internet usage skill levels have yielded similar results (Liu, 2023). Some research also indicates that proactive mediation can effectively reduce smartphone addiction in adolescents. However, content restrictions and monitoring can increase adolescents' tendencies toward smartphone addiction (Chen, 2021). Peng (2022) also confirmed through a survey that different parental mediation approaches yield different outcomes. Restrictive mediation significantly negatively predicts holiday smartphone usage time, while proactive mediation does not have a significant predictive effect on holiday smartphone usage time. From the parents' perspective, parental regulation is generally effective in reducing children's problem behavior. However, the degree of impact from parental regulation varies. According to the study by Wu (2016), the effects of different interference subjects (mothers and fathers) differ, with maternal interference generally being more effective than paternal interference.

Attachment theory

In the 1940s and 1950s, Bowlby found through contact with adolescent with psychological problems that adolescent who received early emotional warmth and care would have better social adjustment and contribute to their overall development, but when this environment was not formed effectively, adolescent's ability to adapt and learn would be damaged. After World War II, Bowlby and Ainsworth concluded that attachment theory has an impact on adolescent's development. Attachment theory refers to an intimate and reciprocal emotional relationship between a child and a caregiver in which the infant understands the relationship with the caregiver (parent, sibling, etc.) as an "internal working model" that has a long-term impact on the individual's developmental process, resulting in positive or negative changes in behavior patterns and cognitive abilities. this bonding has a long-term impact on the individual's development, resulting in positive or negative changes in behavior and cognitive abilities. After years of development, Main categorized attachment theory as secure attachment, insecure avoidant attachment, insecure ambivalent attachment, insecure chaotic attachment, and no attachment. (Wen,2013) Attachment theory can be convenient for understanding the components of the causes of problematic behaviors or cognitive styles of individuals and is applicable to the study of the patterns of interpersonal systems established between adolescent and their intimate relationships. (Zhou,2018)

For different parenting models, Bowlby argues that infants operate an "internal working model" between the parent-child relationship for themselves and their attachment goals. This model is used to make sense of what is around them and to build interpersonal networks, and to update their understanding of the world through their cognitive systems. With different cultural

differences, there are two developmental paths; one is to have the infant as the subject making hopes and demands and things within the environment producing positive feedback. The second is the caregiver as the subject, caring for the infant from a theoretical or experiential perspective. Throughout the attachment care process, it is more important to focus on ethical issues and acknowledge cultural diversity. (Keller,2018)

Sutton (2019) summarized the application of attachment theory: on attachment measurement, domestic violence, negative issues such as parental depression, changes in attachment over time, the impact of attachment on mood and on psychopathology, and on romantic relationships, respectively. He believes that future attachment research should explore insecure attachment types and regulatory relationships.

In terms of attachment measurement, Ainsworth et al. (1978) developed the Strange Situation Paradigm (SSP) for the measurement and assessment of attachment, mainly for infants aged 12-18 months, which was divided into three types of infants: secure, avoidant, and resistant, according to the reactions of adolescent when separated from their caregivers, providing a prototype for later scholars to summarize attachment theory. Later measures of attachment developed the Adult Attachment Interview (AAI) interview model (Main, Kaplan&Cassidy,1985), which aimed to explore a person's psychological state in terms of attachment behavior.

In terms of family-of-origin influences, abused adolescent are 80% more likely to have insecure attachments than non-abused adolescent (Bear,2006), and insecure attachments are also a predisposing factor for Antiscocial personality disorder (ASPD). (Shi, Bureau, Easterbrooks, et al,2012) Xie found that childhood physical abuse, emotional abuse, sexual abuse, and insecure attachment are associated with borderline personality disorder and are among the risk factors for the problem. Wang et al. (2017) and other scholars found in their research on middle school students that secure attachment relationships are beneficial for cultivating the psychological capital of middle school students. Attachment theory can also be used in psychological counseling to understand students and their families (Liu, 2021). Dong (2020) also promotes the application of attachment theory in clinical nursing through the study of adult attachment-related content.

In the adult stage, Zhang (2021) believes that attachment theory has already been maturely applied to the relationships between superiors and subordinates in organizational operations. Wang (2021), through research on leaders and subordinates, analyzed the mechanisms by which inclusive leadership influences employee change-supportive behavior.

In the field of attachment research, website attachment studies are also a factor of interest to scholars, with trust playing a positive role in attachment (Yang et al., 2019).

Therefore, there is a strong correlation between the way parents raise their adolescent in the family and the different attachment states that adolescent develop in later life.

Table 1

Classification of Attachment Theory Research	Author
Baby	Ainsworth（1978）

adolescents	Wang（2017）；Liu（2021）；Zhou（2018）
Adults	Main, Kaplan&Cassidy（1985）；Zhang（2021）
Original family	Bear（2006）
Website Stickiness	Yang（2019）
medical science	Dong（2020）；Keller（2018）

Social Ecosystem Theory

The concept of ecosystem was first introduced in 1935 by the British scholar A..G. Tansley as a closely interrelated whole system consisting of organisms and their surrounding environment at a specific time and scale. On this basis, the ecosystem theory was proposed by later generations.

Ecosystem theory is a rational combination of social and ecological systems by U Bronfenbrenner (2006), which focuses on the interactions with the surrounding scenes and environment during the growth and development of an individual into a complete and comprehensive ecosystem. This includes ecological microsystems, meso-macro systems, and external systems. Microsystem is the description of the individual, including physiological and psychological subsystems. Mesosystem, on the other hand, is the concept of system in which the individual interacts with other groups, society, etc. The macrosystem is a generalization of the overall society, institutions, culture, etc. The system in which people are influenced by environmental and biological factors, and in the microsystem emphasizes that individuals are influenced by their surroundings, which is useful for understanding the changes in adolescent in their home life environment. In the environment of technological interference, different intervention measures taken by parents will have different degrees of influence on adolescent behavior, which is of great significance for the growth of adolescents. Bronfenbrenner believed that children's psychological attributes, such as brain function, emotion and body system, are important attributes that shape children's development results, while the external environment is understood as a complex system that affects children's development, and its structural levels are nested from micro to macro.

In the subdivision of ecosystem theory, there is the technology-subsystem, also known as Ecological techno-subsystem theory, a theory proposed by Johnson and Piplampu (2010), which belongs to a subsystem of child development that includes interactions between adolescent and objects in a microsystem in which adolescent often have access to electronic devices in various In the microsystem, adolescent are often exposed to electronic devices under various conditions, such as classmates, friends, and parents who are too tired to spend time with their adolescent, all "encourage" adolescent's technoference to varying degrees (Lee & Chae, 2007; Azam et al., 2021; Azam et al., 2023). As shown in the figure1.

The formation of ecosystems from the closest to individual interaction to the most peripheral impact on individual development (Liu&Meng,2009). A microsystem is an individual in a social ecosystem, which is not only a physiological social system type, but also a psychological and social social system type. All kinds of events occurring around individuals in micro-systems will have positive or negative effects on individual psychological and social behavior (Lv,2023). In

this study, the micro-system mainly focuses on the physiological status, psychological characteristics and social characteristics of adolescents in the family environment.

Figure 1: Ecological techno-subsystem Theory (Bronfenbrenner, U.,1994)
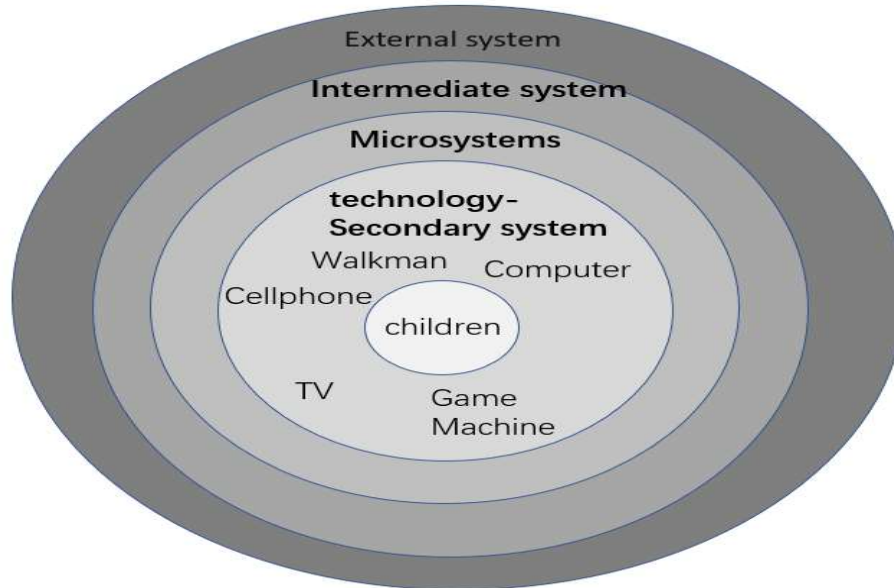
Cognitive Development Theory

The theory of cognitive development proposed by Piaget, also known as generative epistemology, refers to a process in which individuals constantly adapt to the society and surrounding environment and change their cognitive attitude towards things in the process of growth after birth. It is mainly based on the perspective of individual psychological cognition and focuses on the process of change. For adolescent, Piaget proposed four stages of cognitive development: sensorimotor, preoperational, concrete operational, and formal operational (Zhang,2020).

The mechanism of the theory has the following points: Schema, Assimilation, Conformity and Equilibrium; Schema is the essence of the development of cognitive structures as adolescent grow and develop, producing repetitive behaviors and the corresponding awareness of the behaviors, and generalizing what they experience as the basis of cognition (Piaget, 2008). In the process of schema development, adolescent produce assimilation, equilibrium, or conformity responses, which result from the perspective and depth of their own perception of things. Assimilation refers to the integration and understanding of unfamiliar things to the structure of previous cognition, so that one's own cognition of things produces quantitative changes and is broader, but does not produce qualitative changes, and the individual's cognitive direction of things remains unchanged. There is a balance between assimilation and conformity, and when there is homogeneity between assimilation and conformity, adolescent's perception of things will continue to develop to a higher level.

Piaget divides children's cognitive development into four stages, and children at different stages have different cognition of things, among which 0-2 years old is the first stage: the sensorimotor stage. 2 to 7 years old for the second stage: pre-operation stage. 7-11 years old is the third stage: the concrete operation stage. 11-15 years old is the fourth stage: formal operation stage. The change of stages in children's development should not be regarded as static development, each stage has a certain transition process (Lang,2011; Zhang,2020).

Olivier Houdé (2019) proposed a three-system theory of the cognitive brain using Piaget-style brain imaging data on adolescent and adults to further explore understanding about thinking, exploring, and cognition, which explains the logic of discovery in early infancy, the course of adolescent's cognitive development, and the direction and perception of adults' understanding of things. Ramesh (2022) summarized Piaget's theory of cognitive development by arguing that adolescent's developmental theories influence the body and that physical movement leads to the actualization of the brain associated with thinking.

However, Babakr (2019) argues that Piaget's theory of cognitive development suffers from ethics, bias, and limitations because he studied his own adolescent and lacks generalizability; nevertheless, the scholar recognizes that Piaget has provided a great deal of assistance to the science of child development. The theory of cognitive development is effective in explaining the effects of adolescent while receiving education, and sustained, high-quality schooling has a direct effect on adolescent's academic and cognitive abilities (Peng, 2020),

Electronic products such as mobile phones, computers and other devices can be exposed to various kinds of information on the Internet, such as movies, we-media, official media news, etc. These network information, which is not classified by age, has a very obvious impact on teenagers. Therefore, the government and parents should improve the prevention of cognitive risks for children.

Table2

Stage	Age
Sensorimotor	0-2
Preoperational	2-7
Specific operation	7-11
Formal operational	11-15

Social Learning Theory

Bandura, in response to the drawbacks of environmental determinism in the 1960s, created the social learning theory by combining the study of cognition and behavior, which focuses on the inner mechanism of human behavior explained by the influence of the constant connection and interaction between the dual factors of human and environment (Bandura, 2001), the main elements of which include (1) observational learning and imitation (2) cognition as the main support of influencing factors (3) interaction determinism (4) alternative reinforcement (Zheng, Zhang, 2021). The theory focuses on the human subject factor, where people can continuously

change themselves through self-orientation and through learning about the environment as well as the experiences of others.

In social learning theory, learning takes place through role model demonstrations, such as behavioral and verbal demonstrations, symbolic demonstrations by media such as television and radio, and participatory demonstrations by learners. The whole process of learning is carried out by learners through observing and imitating the behavioral patterns of role models (Wang, 2020). So when role models are chosen incorrectly it may bring undesirable consequences and produce problematic or even criminal behaviors. In this theory has several main points.

1. Triadic interaction theory

Individuals' behaviors and attitudes are influenced by environmental factors, and the different behaviors and attitudes of individuals will also influence the surrounding environment to change the way they treat individuals. The three groups of factors do not necessarily interact with each other at the same time, but sometimes two by two, and the results of the interactions are not triggered in an instant, and the results produced by individual factors take time to produce (Bandura, 2018), The interaction between them is similar to a "triangle", with B, P and E representing behavior, subject and environment (Figure 2), which has distinctive features and has a practical relevance to the relationship between people and the environment, showing mutual influence and mutual existence, and sometimes there is a factor with a subject-dominant role, which has different effects depending on the relationship, intensity and different environments.

Figure 2: Triadic interaction theory(Bandura, A., & Hall, P.,2018)
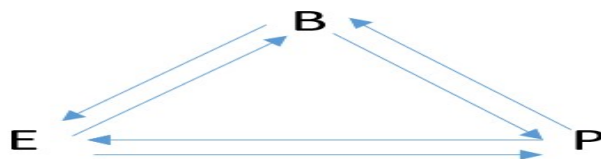
2. Observational learning

"Learning is the acquisition of knowledge through the cognitive process of information", which contains four factors: attention, retention, motor recurrence, and motivation (Wang, 2016), and the attention process is the primary condition for observational learning, according to the influence of the learner's personal experience, intelligence, and attitude. These four processes involve the cognitive ability of the person, proving the cognitive-psychological tendency in Bandura's theory (Guo, Zhang, 2022).

3. Self-efficacy.

Self-efficacy refers to a person's cognitive feeling about whether his or her behavior can be successful or not, and is also a subjective judgment of himself or herself, and the stronger the confidence can bring stronger motivation. Self-efficacy is also influenced by one's emotional state and the attitudes of others.

Table3

Theory name	Details
Triadic interaction theory	The behavior and attitude of individuals are influenced by environmental factors, while different behaviors and attitudes of individuals also affect the surrounding environment, thus altering the way others treat them. The three sets of factors do not always interact simultaneously, but sometimes two interact with each other. The interaction between them is not instantly triggered, and the results produced by individual factors require time to emerge (Bandura, 2018). The interaction between them is similar to a "triangle", where B, P and E represent behavior, subject and environment. It has distinct characteristics and real-world relevance in its interaction with people and the environment, demonstrating mutual influence and coexistence, sometimes with a subject-led factor that produces different effects based on the relationship, intensity and different environments.
Observational learning	"Learning is the acquisition of knowledge through the cognitive process of information", which contains four factors: attention, retention, motor recurrence, and motivation (Wang, 2016), and the attention process is the primary condition for observational learning, according to the influence of the learner's personal experience, intelligence, and attitude. These four processes involve the cognitive ability of the person, proving the cognitive-psychological tendency in Bandura's theory (Guo, Zhang, 2022).
Self-efficacy	Self-efficacy refers to a person's cognitive feeling about whether his or her behavior can be successful or not, and is also a subjective judgment of himself or herself, and the stronger the confidence can bring stronger motivation. Self-efficacy is also influenced by one's emotional state and the attitudes of others.

In the application of social learning theory, Pinho (2020) explored the main factors for the success of e-books through social learning theory, and library managers have a very important influence on the use and expansion of e-library development. Some scholars have applied STL to study the motivational factors of users' continuous use of online social networks, and the efficacy expectation of the group influences their attitudes and behavioral styles through the knowledge of the user's information, processing, and analysis of the information (Li, Yang & Liu, 2018). Wahyuni & Azwar (2022) argue that under social learning theory, the concept of religious tolerance allows adolescent to cooperate with each other for mutual benefit, tolerate each other, and give adolescent a tolerant and respectful attitude of appreciation for others. The theory can also have a positive effect in the prediction of undesirable behaviors, as Powers et al. (2020) used

social learning theory to predict intimate partner violence as well as criminal behavior, providing an objective explanation of the factors that produce positive or negative behaviors.

Although Bandura's social learning theory does not have an explicit theory of moral education, many commonalities in his views with moral education have good application for moral education-related research (Li, & Liu, 2014), so it has appropriate implications for moral education, and has some similarities with some of the content explored in cognitive development theory, which can be discussed as a concern in the study, and in later studies that can be used as a reference to elicit research directions.

According to sociological theories, it can be inferred that adolescent will decide their behavior under the influence of their surrounding environment based on their own experiences of handling the situation under different parenting styles, which is one of the intrinsic mechanisms of problematic behavior generation of interest in this study.

Psychosocial Developmental Theory

Erik Homburger Erikson, one of the representatives of psychoanalytic self-psychology, wrote in his book Identity: The psycho-social development theory is elaborated in detail in Youth and Crisis, which divides the development of personality into eight stages, emphasizing that social culture is the determining factor of development, and verifies and expands Freud's psycho-sexual development theory. The eight stages are as follows:

1. Basic trust versus basic mistrust (0-1 years): Newborns are more dependent on their parents, especially on the mother, due to physiological reasons. Therefore, the care of parents for newborns can help improve the newborn's trust in the surrounding people and the environment, and it is obviously helpful for the newborn to establish a basic attitude toward the world. If there are negative effects in the newborn's surrounding environment, such as bad attitudes, abandonment, etc., it will make the newborn feel insecure.

2. Autonomy versus shame and doubt (Ages 1-3): At this time, the body and brain of children begin to grow rapidly, and the high dependence of children is accompanied by the germination of autonomy. However, the autonomy of children at this time is not fully controlled by themselves, and parents need to develop their willpower well, so parents need to have good patience to help their children.

3. Initiative versus guilt (3-5 years old): Compared with the previous stage, children have stronger curiosity and the ability to drive their actions. At this time, parents should actively encourage rather than ridicule and excessively restrict their behaviors, otherwise, children will have anxiety and reduce their initiative

4. Inferiority toward the industry versus inferiority (age 5-12): Children at this stage have a differentiated understanding of self-recognition and may evaluate the difference in their abilities, so they are in need of guidance and assistance from parents and teachers to improve their self-confidence.

5. Identity versus role confusion (ages 12-20): In the later stage of school life, teenagers are affected by their physiological development and feel confused about their future development direction. At the same time, they do not want to be controlled and want to freely control their

behavior and exploration direction. If parents can provide appropriate support and guidance, it will help teenagers to establish their role orientation; otherwise, they will feel confused about their role. Take inappropriate ways to escape from reality, such as puppy love, skipping school, etc.

6. Intimacy versus isolation (20-24 years): The first stage of adulthood in which adolescents tend to engage in intimate relationships with others, which, if not established, can lead to avoidance of relationships and increased loneliness. This stage began with the expansion of Freud's psychosexual theory.

7. Generativity versus stagnation (25-65 years): This is the second stage of adult development, which has completed the transition from adolescence to adulthood, in which individuals can form families and reproduce the next generation, while passing on the influence factors arising from their own growth to the next generation.

8. Ego integrity versus despair (65- death): Erik Homburger Erikson believes that this stage is the integration of the above seven stages, integrating the previous life cycle and giving feedback on it, that is, the summary of life.

Erik Homburger Erikson believes that self-identity is very important in the development of individuals. Self is the internal guidance and internal structure of individuals and produces the relationship between individuals and society. He divides self-identity into three levels: personal-identity, social-identity and group-identity. Self-identity is the self-integration of an individual in a specific social environment, through the interaction with others to form a firm and continuous sense of self, and can feel supported and recognized in the society, but also can feel that they are important to others, so that they can take the initiative to achieve their expectations and feelings.

Table4

Step	Period	Content
Basic trust versus basic mistrust	Age 0-1	Newborns are more dependent on their parents, especially on the mother, due to physiological reasons. Therefore, the care of parents for newborns can help improve the newborn's trust in the surrounding people and the environment, and it is obviously helpful for the newborn to establish a basic attitude toward the world. If there are negative effects in the newborn's surrounding environment, such as bad attitudes, abandonment, etc., it will make the newborn feel insecure.
Autonomy versus shame and doubt	Ages 1-3	At this time, the body and brain of children begin to grow rapidly, and the high dependence of children is accompanied by the germination of autonomy. However, the autonomy of children at this time is not fully controlled by themselves, and parents need to develop their willpower well, so parents need to have good patience to help their children.

Initiative versus guilt	Age 3-5	Compared with the previous stage, children have stronger curiosity and the ability to drive their actions. At this time, parents should actively encourage rather than ridicule and excessively restrict their behaviors, otherwise, children will have anxiety and reduce their initiative
Inferiority toward the industry versus inferiority	Age 5-12	Children at this stage have a differentiated understanding of self-recognition and may evaluate the difference in their abilities, so they are in need of guidance and assistance from parents and teachers to improve their self-confidence.
Identity versus role confusion	Ages 12-20	In the later stage of school life, teenagers are affected by their physiological development and feel confused about their future development direction. At the same time, they do not want to be controlled and want to freely control their behavior and exploration direction. If parents can provide appropriate support and guidance, it will help teenagers to establish their role orientation; otherwise, they will feel confused about their role. Take inappropriate ways to escape from reality, such as puppy love, skipping school, etc.
Intimacy versus isolation	Age 20-24	The first stage of adulthood in which adolescents tend to engage in intimate relationships with others, which, if not established, can lead to avoidance of relationships and increased loneliness. This stage began with the expansion of Freud's psychosexual theory.
Generativity versus stagnation	Age 25-65	This is the second stage of adult development, which has completed the transition from adolescence to adulthood, in which individuals can form families and reproduce the next generation, while passing on the influence factors arising from their own growth to the next generation.
Ego integrity versus despair	Age 65-death	Erik Homburger Erikson believes that this stage is the integration of the above seven stages, integrating the previous life cycle and giving feedback on it, that is, the summary of life.

Conclusion

There are more temptations for teenagers in the process of growing up, and it is also a key moment for them to establish their outlook on life. Both school education and family education

have a strong effect on reducing the problem behaviors of teenagers. However, when it comes to education methods, education coverage and other related fields, different environments produce different results. And it has a certain development law. Confucianism has an obvious influence on education in China. Hierarchical concepts such as "king and minister", "teacher and apprentice", and "father and son" will create a strong link between the manager and the managed, which will play a good role in promoting the correct establishment of values among young people in families or schools. Studies have shown that when teenagers are tempted by electronic products or entertainment media, appropriate intervention by parents can help reduce the probability of adolescent problem behaviors, and also has a good cultivation effect on their prosocial behaviors. Families and other institutions should pay attention to the spread of more and more harmful information, especially the regulation of violent behavior, electronic games and media software. The government should propose corresponding measures and enrich the details of legal management, so as to ensure that young people can reduce risks on the road of growth.

Suggestion

In the face of problems in the family scene under the new media environment, parents may not achieve better results by taking strong interference behavior. According to previous research results, traditional intervention methods may not make parents well involved in the management of family education, but will intensify conflicts and lead to communication problems. Active intervention by parents will help improve children's respect and understanding of parents. It has a good promoting effect on the relationship within the family.

Parents should set an example when interfering with their children's Internet use behavior. Parents' long-term addiction to mobile phone use will give their children bad guidance, thus becoming a negative model, resulting in children unable to recognize their parents' discipline and reducing the result of intervention.

Parents and children should improve the level of Internet use, improve the ability to understand media information, Internet information discrimination ability, to avoid receiving bad information. Parents should respect their children's personal privacy. Teenagers have limited experience and are curious about all kinds of information, but the shame brought by the pursuit of bad information may be amplified by parents, so it should be emphasized to establish a sense of boundary between the public sphere and the private sphere.

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