

Static Behavior in Front of Screen and Teenagers' Physical and Mental Health

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Abstract

The static behavior in front of the screen is an important factor affecting the physical and mental health of teenagers, which should be paid attention to by parents, schools and students. The static behavior time in front of the screen is a part of the static behavior time. It not only has the static behavior characteristics that affect the health of young people, but also has its unique impact characteristics. This characteristic and its mechanism are not very clear at present. Many research results support the strict control of the time of teenagers' screen static behavior. At present, China lacks relevant literature, and there is no screen static behavior limit suitable for Chinese primary and secondary school students. This article summarizes the relationship between screen static behavior and adolescents' physical and mental health, which is helpful to further study the impact of screen static behavior on health and propose corresponding intervention measures. At the same time, it is also hoped that the relevant departments will pay attention to the static screen behavior of teenagers and create a learning environment conducive to the healthy growth of students.

Keywords

Teenagers; Static behavior in front of the screen; Physical and mental health.

1. Introduction

The static behavior in front of the screen has a negative effect on the physical and mental health of teenagers. The key to changing the static behavior in front of the screen is to reduce the static behavior in front of the screen. Therefore, this paper focuses on the analysis and induction of the relationship between screen static behavior and mental health of pro teenagers. Through the analysis of the influence of static behavior in front of the screen on the physical and mental health of teenagers, we can better understand the influence of static behavior in front of the screen on the mental health of minors, and formulate corresponding countermeasures accordingly.

2. Static Behavior Is An Independent Risk Factor for Adolescent Health

Long term sit in on screen is an independent risk factor, especially among teenagers, which is seldom paid attention to. In physical education teaching, people's demand for physical exercise often ignores the static life form and accompanying behavior in physical education teaching. The influence of long-term static behavior on the physical and mental health of adolescents can be divided into two different concepts. There is a concept that static behavior will compress the time of physical activity, resulting in insufficient exercise, which is bad for the health of young people. Another view is that long-term static behavior will have different physiological effects on the body, and its pathogenesis is obviously different from the body's movement mechanism. However, in epidemiological studies around the world, there has been evidence that exercise and a static lifestyle in front of the screen have independent effects on the health of adolescents.

3. Static Behavior in Front of The Screen Is The Focus of Static Behavior Research

3.1. There is a close relationship between pre screen static behavior and adolescent obesity

At present, people pay more and more attention to the static behavior in front of the screen and obesity of adolescents. Many studies have investigated the correlation between the static behavior in front of the screen and adolescent obesity. For example, Mexican researchers conducted a horizontal study on the correlation between screen static behavior and overweight and obesity in 18784 adolescents aged 10-19 years. A Canadian survey on daily pre screen static behavior of 744 middle school students was conducted, and they were divided into four groups: the low screen static behavior group, the high screen static behavior group, the continuous pre screen static behavior enhancement group, and the continuous pre screen static behavior reduction group. The results showed that those who kept high screen static status were more likely to be obese than those who kept low screen static status. In addition, RCT research also needs more research, showing that static behavior on the screen can effectively reduce the risk of obesity in adolescents. Different research results show that, in different groups, the static behavior on the screen does have a certain correlation with adolescent obesity.

There is a great correlation between the static behavior on the screen and the obesity of teenagers, which is mainly due to the high energy foods (such as chocolate and high-energy sugary drinks) in the static behavior in front of the screen, namely the so-called "high-energy diet". The experimental group used computer card games, while the control group was not stimulated. The results showed that in the experiment, the experimenters would eat more snacks after meals, and were more inclined to forget the food they had eaten. The static behavior in front of the screen also has a certain impact on the healthy lifestyle of teenagers. A survey in Scotland shows that there is a positive correlation between screen static behavior and healthy diet at different ages. That is, the longer the screen static behavior lasts, the less healthy the diet will be. The study found that with the increase of static behavior in front of the screen, especially women, they are more likely to eat snacks such as puffed food.

3.2. Static behavior in front of screen and risk behavior of teenagers

Any behavior that directly or indirectly harms the health, integrity, or even adult health and quality of life of adolescents is collectively referred to as adolescent health risk behavior. The static behavior on the screen is not only a harmful health behavior to teenagers, but also may lead to other health risk behaviors. The results showed that teenagers spent more time using computers than watching TV; Six risk behavior variables, such as smoking, drinking, not wearing a seat belt, taking drugs, using illegal drugs, and not using condoms, constitute the MRB score. Long term static behavior in front of the computer screen is closely related to the MRB score.

3.3. The neuroendocrine system is more likely to be out of balance if the actor is static before the screen for a long time

Studies have shown that students who spend more than 2 hours in front of the screen every day have a higher risk of insulin resistance and other metabolic diseases than students who spend less than 2 hours in front of the screen. Another experiment analyzed the dose response relationship between the static behavior in front of the screen and MetS. The results showed that the static behavior in front of the screen and MetS had a dose response relationship and were independent of exercise, but its mechanism of action was not completely clear.

3.4. Close relationship between static behavior in front of screen and mental health of teenagers

In adolescent mental health education, we should attach importance to the communication with parents and peers, which is of great significance to their physical and mental health. The static behavior in front of the long screen will not only cause psychological problems for teenagers, but also have a negative impact on mental health. For example, an American team analyzed two longitudinal groups of teenagers. They found that the longer they stayed still in front of the screen (TV, videos, DVDs, games, computers), the less time they spent with their family members, and the more lonely they became. Researchers in Scotland found that children and adolescents may suffer from psychological problems when the screen is long and still. Some studies have explored the correlation between psychological problems, TV and screen entertainment time and physical activity, as well as the "Strength and Difficulty Scale" (SDQ) and other aspects such as TV, screen entertainment time, physical activity and dietary intake of the sampled parents. The results showed that there was a certain correlation between weekly TV, screen leisure and physical exercise and the total SDQ score. In China, especially in regions with rapid economic development, TV, computers and mobile phones have become popular; The rise of handheld electronic devices such as IPAD and IPHONE has focused people's attention on electronic devices. When people talk about the convenience of electronic equipment to people's lives, they ignore its impact on the physical and mental health of young people. Adolescent teenagers, because their bodies are not fully developed, their endocrine systems are active, their metabolism is fast, and they are more sensitive to the surrounding environment than adults. In addition, the psychological development of adolescent children is not mature enough, and their self-control ability is poor, so they are easily attracted by electronic products.

4. Intervention Strategy pf Static Behavior Before Screens

4.1. Individual behavior change technology

A targeted survey found that in the eyes of many teenagers, the static behavior in front of the screen is an important part of their daily life, as well as a good opportunity to promote entertainment, social interaction and escape from reality. However, long screen static behavior is very harmful to the body. Therefore, it is necessary to make teenagers understand the harm of too many screen static behaviors through special education, health information and other methods, and provide them with better and more positive behavior habits to avoid too long screen. In addition, health awareness, goal setting, self-monitoring and feedback, behavior reinforcement, self motivation, self-efficacy, etc. are more commonly used individual level effective means in static behavior transformation technology. Parents can consult with their children to formulate screen as the goal, family rules and action plans, conduct daily monitoring (you can wear an intelligent bracelet), improve their own efficiency, and gradually reduce the static behavior in front of the screen. Although, full attention should be paid to the full and active participation of young people, especially the participation of the elderly; However, because the adolescent children are still in the growth stage, their psychological development is not mature enough, and their self-discipline and self-control are relatively weak, it is difficult to rely on personal internal means and methods alone. Therefore, in the past, in the research on intervention of children and adolescents' static behavior in front of the screen, very few considered personal factors as a single influencing factor, but more used external physical and social factors to reduce the static behavior in front of the screen.

4.2. Social (parental) environment/support

4.2.1. Clinic consultation

A retrospective study shows that most interventional studies show that outpatient counseling can effectively reduce the static behavior (time spent watching TV) in front of the screen. Another meta analysis shows that health training or coaching is much better than automatic monitoring. This outpatient based coaching/health training program, in addition to providing specific strategies and methods, will also have motivational interviews. In the past, psychological counseling and health education courses were based on social cognitive theory. However, this intervention study based on outpatient counseling is mostly preschool (<6 years old) and lacks long-term follow-up. Therefore, the applicability and long-term impact of this technology on the elderly or young people need further research.

4.2.2. Parental involvement/support

The past intervention research, generally including weekly or monthly information or telephone tracking, can not only improve parents' and children's understanding of relevant behaviors, but also enable parents to become role models. At the same time, it is also necessary for parents to often do some things (such as physical exercise logs), and work with children to formulate goals, plans and static "budgets" in front of the screen. These jobs or affairs can also be signed in a multi-party contract to make parents and teenagers more responsible. After completing the task, children can be rewarded with food coupons, cards, certificates and even cash. In addition, we can also advocate "turn off" and "turn off the TV/computer", that is, to effectively control the static behavior in front of the screen in a few days or weeks. On the whole, most studies believe that the role or role play of parents plays an important role in the intervention.

4.3. Physical (screen) environment/accessibility

4.3.1. Electronic equipment locking device/program

The electronic equipment locking device is to set an observation time management software on the existing electronic equipment and an observable target time, so as to realize the long-term monitoring of electronic equipment. The function of electronic device locking devices is similar to that of parents' instructions, but their control over teenagers is quite different. The former is an objective means, while the latter is dominated by parents, which can effectively prevent potential conflicts between parents and children. Although a few studies have shown that using electronic device locking programs can reduce the number of screen views per day, some studies have found that these methods have different effects. At the same time, the survey also showed that some families did not really use the locking device provided by the researchers, or they were unwilling to continue to use it after use. Therefore, the locking problem of electronic equipment is how to make users better accept and use it for a longer time.

4.3.2. Conditional feedback system

Conditional feedback system refers to the time "earned" from TV programs in health behaviors such as physical activity to meet specific needs, which can be generally divided into closed loop or open loop. A survey conducted in a closed cycle combining TV watching with fixed bicycles found that during the intervention, the viewing time of a week was reduced by 20 hours. Another intervention method is to use the open-loop method, that is, to connect TV watching with daily physical activity (pedometer or accelerometer), and reduce TV watching for 2 hours every day. The results show that the intervention effect of conditional feedback is relatively stable.

5. Conclusion

To sum up, the static behavior in front of the screen has a great relationship with the physical and mental health of teenagers, which is a new research direction of sports and public health. At present, the existing research shows that the intervention of screen static behavior in adolescents has a certain positive effect, but the effect is not significant. The intervention of parents and family physical environment are the key factors affecting the effectiveness of intervention. Future intervention research should be based on systematic health behavior theory and behavior conversion technology, integrate effective measures in schools, communities and families, and actively introduce new technologies to strengthen short-term and long-term interventions on emerging types of screen behaviors, including smart phones, to reduce the time of static screen behaviors of young people and improve their physical health.

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