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## Factor Analysis on Environmental Issues Generating the Declination of Students' Physical Quality

#### XU Fengying[a],\*

[a]Qufu Normal University, Shandong, China.

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#### **Abstract**

Students' physique issue has become very common in the whole society. The declination of students' physical quality is closely related with outside environment. The paper has found several natural environmental factors as well as social environmental factors causing the declination of students' physical quality by using environmental factor analysis. The natural environmental factors are air pollution, water pollution, solid pollution, and noise pollution. The social environmental factors are: too much junk food, undernutrition, increase of study pressure, lack of practices, high speed of urbanization, too much pressure of competition, lack of health concept, poor atmosphere for physical practice, students' interest and hobbies cannot be developed fully, and the declination of athletic ability.

**Key words:** The Declination of students' physique quality; Environtology; Physical practices; Health

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#### INTRODUCTION

Rapid development of economic society and technological advances leads to great social changes. Besides material and cultural demands, people have being paying more and more attention to spirit and health. As the mainstay of the future society, students nowadays have taken on great responsibilities for their country's prosperity. Therefore, it is no doubt that they should be given more care by

people. A healthy body of a student determines whether he or she can put it to the study of various disciplines and lay a solid foundation for the construction of the country in the future. The physical quality of students has been taken much care of by the nation and the society. Under the background of modern education, the way that parents educating children has changed a lot. They paid more attention on children's study grades while ignore what they really need; Teachers request students to use all their time on study which takes their entire spear time after class and they also supervise and urge students to study while students physical classes have been taken up by cultural classes. The issue of the declination of students' physical quality has been raised again and again so that both parents and teachers have now realized the importance of students' health. Family, school, society, and the nation are all trying to create a positive environment for improving students' physical quality.

## 1. THE DECLINATION OF STUDENTS' PHYSICAL QUALITY AND ENVIRONTOLOGY

#### 1.1 The Declination of Students' Physical Quality

The declination of students' physical quality has been taken care of more and more by the country, society, schools, and families. The physical education in school has also been questioned by the public. Whether in school physical education can improve students' physical quality has been a hot topic among scholars and professors. According to the "2010 National Students' Physical Quality and Health Survey" published by General Administration of Sport of China in September 2nd, 2011, university students' physical quality has been declining gradually but the falling range decreases clearly; the rate of poor sight has been tested growing and appear to start from younger ages; the rate of obesity is going up; the dental decay rebounds. The

<sup>\*</sup> Corresponding author

declination of students' physical quality has been paid attention to once again. How to stop this phenomenon and what efforts and improvements should be made by the country, society, schools, and families have been raised to a quite high level and also caused the consideration of the public. Since 1985, China has taken 6 students' physical quality and health survey. Although the declination of students' physical quality has slowed down recently, many eyes have moved to school physical education while another aspect causing the declination of students' physical quality has been ignored. The external environment of students is also a huge factor. It is helpful for the decision making of the nation and physical course reform to study the reasons causing students' physical quality declination from various aspects.

#### 1.2 Environtology

Environmental science is one of the 20th century's fast developed new scientific disciplines. Environmental science ranges from environmental pollution improvement to natural ecology resource protection and from the public's normal life to national economic planning. The new science has permeated into every aspect of society development and becomes an essential part of the development of society and science. During several decades' fast development, environmental science has now grown into a huge scientific system consisting many disciplines.

Living in the broad environment, it is no doubt that people have to be changed by environment. No matter natural or social environment has changed people's physical quality, emotion, attitude, and habits during their adapting the environment. Fast economic society development has brought environmental pollution as well as the fastened social speed; scientific improvement changes a lot people's life styles and shows more and more social pressure. In order to have a bright future and better jobs after school, modern students have to bear more study pressure than before. Study has become the number one principle of most students, parents and teachers. Students health and their physical courses have been ignored which is the most important reason for physical teachers nowadays. The declination of students' physical quality influenced by environmental pollution and fastened speed of society has become very serious. The environmental factors causing students' physical quality has been paid more attention to scholars and professors.

# 2. ANALYSIS ON THE INFLUENCE OF NATURAL ENVIRONMENT ON STUDENTS' PHYSICAL QUALITY

#### 2.1 Air Pollution

Industrialization's coming has made coal, petroleum, natural gas and other resources apply in every aspect of social life. Huge amount of CO2 and other greenhouse

gases have been emitted and solid particles and dust in the air has caused large scale haze. Refrigeration technique applies in household appliances and Freon destroys ozone which can protect ultraviolet of the sun and thus skin diseases have become more common. Unhandled industrial waste gas has been given out and toxic gas results in great amount of respiratory diseases and even cancers.

Whether condition is one of the influential factors for people who take sports activities. The long-lasting haze in many area of the north part in China made great influence on people's outdoor activities. Therefore, the government suggests the public to reduce outdoor activities. All outdoor activities and physical classes cannot take on normally which is not good for students' physical quality improvement. During bright days, the ultraviolet index is much higher in the air, thus, without appropriate protection, long time outdoor activities may bring skin burnt and what's worse skin diseases. This phenomenon reflects that air pollution is an important factor causing students' physical quality declination.

#### 2.2 Water Pollution

Water resource in the natural world has been polluted more and more. The emission of industrial wastewater and sanitary sewage, disqualified pile ups of industrial and household garbage can all cause water pollution. Sewage contains great amount acid, alkali, and oxidant. Once organics conduct anaerobic decomposition, hydrogen sulfide, mercaptan and other unpleasant smell gases have been generated which will even worsen the quality of water. Industrial wastewater contains Cu, Cd, Hg, As and other compounds, benzene, phenol, dichloroethane, ethanediol and other organic poisons will kill aquatic livings, influent the source of drinking water. Human cancers, skin diseases, and other illnesses are directly related with water pollution. Serious rivers and lakes pollution is well known to all. Recently, the discovery of underground water pollution near rivers and lakes had caused panic of the public. The enteromorpha overflow in Qingdao city of China every summer means ocean pollution is still a serious problem.

Water pollution has caused the decrease of water sports. Lack of swimming pools affects the students who love swimming. Harmful ingredients in daily drinking water cause digestive diseases affecting students' normal diet. The insufficient nutritional supplement of students influences students' growth and goes against the improvement of students' physical quality.

#### 2.3 Solid Pollution

Unqualified pile ups of industrial and household garbage cause environmental pollution. The development of industry also brings various kinds of industrial wastes and most of them are piled up on agricultural land; household garbage also generates in an uncountable way. The final way for disposing the garbage is to burn or bury in the

field. Burning causes air pollution and burying makes land pollution. Polluted water contains great amount harmful factors which will spread into land and causes land pollution. Crops growing up in polluted fields and the application of chemical pesticides are all resources of food pollution.

These pollutions will do lot harm to students health. Air pollution and water pollution also restricts students' physical activities' time and spots. It is impossible for students to improve their physical quality if they cannot do practices normally. Therefore, a disadvantaged ecological chain has been generated in which people and groups will affect each other and students' physical quality problems are still more impossible to be solved.

#### 2.4 Sound Pollution

Sound pollution is a sensitive pollution and its main source is traffic, industrial manufacture, daily life, and architectural construction. The gradually increase of the amount of automobiles have caused serious sound pollution; most factories work day and night and their manufacture activities have brought much noise especially in the night and disturbs people's normal life; every sort of publicity in daily life, the application of sound equipments in different commercial parties, and near every commercial district and merchants uses microphones and stereo systems to call for customs. Many construction sites have also caused serious sound pollution. In addition, noise is the main reason of the insomniac of city people. Long-term stimulation has caused the increase of citizens' nervous system diseases, cardiovascular diseases, and cranial nerve system diseases.

Daily study life has given students great pressure already, if they have been affected by sound pollution, it is impossible for them to put all their heart and soul into study. Various kinds of noise pollution have made students unable to sleep and therefore get insomnia and other phenomenon. Long time insufficient sleep will also affect the quality of body and brings changes of body functions, increase of digestive system and neural system and results in the declination of physical quality and generation of mental diseases.

# 3. ANALYSIS ON THE INFLUENCE OF SOCIAL ENVIRONMENT ON STUDENTS' PHYSICAL QUALITY

### 3.1 Too Much Junk Food and Inadequate Nutrition

With the reform and open policy of China and the access to the WTO, international catering companies have entered Chinese market. Foreign food such as chips, FRIES, and puffed food all have high calories. According to research, eating such kind of food is the reason of students' obese and that is way they are called junk food

in foreign countries. Foreign fast-food restaurants have become very popular in China. Students are their main customs and even some parents reward their children with fast-food when their study grades rise. Thus, we can see that children are main customs of this kind of food. In the sixth national students' physical quality and health survey we found that childhood obesity has become more and more serious in recent years.

The declination of students' physical quality is related with students' daily dietary habit as well. With the entry of the junk food in students' recipes, students' competition in eating such food has become more. The prices of this kind of food are much higher than China's average consumption level and could bring pressure to students' parents. Students are undergoing fast physical development stage and their physical quality level is determines by their nutrition level. As the foundation, their body cannot reach the required level will cause hidden danger for their normal practices, such as the loss of Ca. This is one factor that affects students' physical quality.

### 3.2 Study Pressure Increase and Lack of PracticeTime

High-speed social life pressure has made parents require much for their children. Parents have recognized study grades as an important standard for evaluating children even since kindergarten. Key senior high schools and key universities are parents' final targets. In order to get reward and titles, teachers let students spend all their time on study while ignore their physical health which gives huge pressure for students virtually. Being in high-strung environment for a long time will easily causes mental diseases for students which is not good for their human communication. Students' interest cultivation cannot be treated equally by their parents and teachers. Parents usually put their own wishes on their children without thinking about what the children really want and physical practices are always be thought as improper and playful. Currently, students' time is limited in school, restaurant, and classrooms. They barely have any time for sports activities and even they do they will be criticized by their teachers as if outdoor activities is shameful. This concept is now quite popular among students, which has further stopped the generation of sport practice atmosphere.

### 3.3 Urbanization Accelerated and Competition Pressure Increased

Most students only study in the university without paying attention on other things outside the university; therefore, they feel very difficult to step out of the school when they graduate. The study pressure in university is much less than in high school, thus, students can find themselves part-time jobs during university. However, the great pressure given by the society is still a problem worth considering. Most companies care only the experience that the applicants had for which can save time and procedures and avoids long-term breaking-in period and

brings more profit and achievements for the company. Therefore, graduates are usually turned down by such kind of reasons. Consequently, more and more students are getting out of the school and stepping into the society to look hard for experiences so that they can get a job much easier after graduation. This phenomenon also brings students excuses for not taking sport activities and thus causing the declination of their physical quality.

## 3.4 Lack of Health Concept and the Atmosphere for Sport Activity Is Poor

Students' awareness degree on health is not deep enough for they always think they are young and strong so that the pursuit of health is ignored. Irregular daily habits, such as do not eat on time and sleep and so on, are all obstacles of their health. Long time study without caring about health will finally lead to the declination of immunity of the body and bad physical quality which cannot support the ordinary study and bad study results. This is definitely a vicious circle for students. Neither study nor health can be obtained as they want. What is worse, students' mental health will also be shadowed as well.

Due to the great importance given by schools and teachers, the atmosphere in school for students to take sports activities is very poor. There are nearly no students can put down their books after school and get out of the classroom to do some simple exercises. In such atmosphere, it is impossible for students to improve their own enthusiasm for sports and not to say the awareness of physical practices. Some students who want to exercises cannot go into the playfield due to the conformity. All of these have restricted students' physical quality improvement.

## 3.5 Students' Interest and Hobbies Cannot Be Developed and Their Athletic Ability Has Declined

"Study is the first important thing for students" is a giant mountain suppresses students. Parents and teachers have made study as the main stream for their children. Teachers think students should put all their time in studying knowledge during school so that to improve their grades and cannot be bothered by any other things. They think once students can get into higher school they can do whatever they like. In fact, the truth is students' interest and hobbies are still limited by them. Parents are afraid

that their children only but not study during vacations, therefore, they signed up several kinds of cramming schools for them. Consequently, children's vacation time is taken up by study. Children do not have any right to equitably distribute their time to do what they want to. As a student in school and a child at home, they have always depressed themselves which is harmful for their health. Students should take a little time getting out of the classroom and step into the nature to breathe some fresh air and their hobbies some time. Long time study and lack of sports will make students tired when they have some running or fierce activities. Their body will be tired for quite a long time and they cannot recover very soon. This is definitely not good for students' body and may even cause serious consequences. The athletic ability declination is closely connected with the declination of physical quality of students.

#### CONCLUSION

Environment can affect greatly on everyone living in it. Students are more easily to be influenced by outside matters for they have not set up their own core value and view of life. Environment also has huge influence on students' physical quality. Due to various different factors, the declination of students' physical quality is inevitable. It is still necessary for us to further study and investigate the way to reduce harmful influence brought by outside environment on students taking on physical practice.

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