

all-round development. Cultivating children’s autonomous learning ability has become an important curriculum of children’s basic education. The early childhood basic education model guided by the cultivation of children’s autonomous ability provides a guarantee for the innovative development of early childhood basic education, and achieve the purpose of good implementation of early childhood basic education. According to the current situation of the cultivation of children’s autonomous learning ability in children’s basic education, this paper analyzes the value of the cultivation of children’s autonomous learning ability in children’s basic education, and puts forward the ways and practical paths of cultivating children’s autonomous learning ability in children’s basic education, so as to promote the good cultivation of children’s autonomous learning ability. At the same time, aiming at the problem of children’s autism, this paper carries out the research on the strategies to improve children’s autism in early childhood basic education, in order to ensure that children with autism can grow up healthily and happily.

**Objective:** In order to improve the psychological problems of children with autism, this paper constructs a basic education strategy for children based on psychological analysis, which aims to ensure that children with autism can grow up healthily and happily.

**Subjects and methods:** 200 autistic children were selected as the research objects, and measured in combination with Autism Behavior Checklist (ABC), including interpersonal relationship, imitation behavior, emotional response, weird behavior, resistance to the environment, anxiety response, oral communication, intellectual function, etc. then the basic education intervention for children based on psychoanalysis was carried out, and the intervention period was 1 month. The improvement of psychological problems of children with autism before and after intervention was compared.

**Methods:** All data were statistically processed by SPSS22.0 software.

**Results:** Table 1 shows the improvement of psychological problems of children with autism before and after the intervention. It can be seen from Table 1 that compared with before the intervention, the autistic psychology of children has been significantly improved after the basic education intervention based on psychological analysis ( $P < 0.05$ ).

**Table 1.** Improvement of psychological problems of children with autism before and after intervention ( $n=200$ )

Dimension	Before intervention	After intervention	<i>P</i>
Interpersonal relationship	4.12±0.77	1.78±0.69	<0.05
Imitation Behavior	4.38±0.77	2.15±0.67	<0.05
Emotional response	4.51±0.84	1.03±0.61	<0.05
Bizarre behavior	4.72±0.71	2.06±0.79	<0.05
Resist the environment	3.38±0.77	1.34±0.76	<0.05
Anxiety response	4.51±0.84	2.65±0.81	<0.05
Oral communication	3.72±0.71	2.78±0.66	<0.05
Intellectual function	4.01±0.62	1.00±0.59	<0.05

**Conclusions:** The basic education strategy of children based on psychoanalysis can effectively improve the autistic psychology of children, and then provide a new perspective and strategy for the treatment of autistic children.

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## CORRELATION BETWEEN VISUAL COMMUNICATION DESIGN PRODUCTS BASED ON AUDIENCE PSYCHOLOGY AND CONSUMERS’ PURCHASE INTENTION

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**Background:** Visual communication refers to the transmission of visual information to the audience, so that the audience can meet their own visual needs after receiving this visual information. Therefore, from a certain point of view, the process of visual communication design can also be regarded as the creative process of artistic works. Visual communication design works also have certain artistic attributes, which can reflect society, express culture and emotion. Through visual communication design, designers can realize

emotional interaction with the audience, awaken the audience's cognition and memory of the past or present, stimulate emotional feedback, meet the audience's emotional needs and create more value. In order to achieve the above purpose, we must innovate the thinking mode in the existing visual communication design to meet the aesthetic and psychological needs of the audience. At the same time, in visual communication design products, the design thinking and design direction need to consider the wishes of product consumers in some aspects. Generally speaking, consumers' demand for products is in line with consumers' psychology. Some studies have pointed out that consumers' purchase intention can be analyzed through audience psychology in psychology. By analyzing consumers' purchase desire and product love in product purchase, we can more effectively put forward the product design direction in line with consumers' psychological needs.

Audience psychology is a psychological science that studies social groups in psychological research. In audience psychology, it is proposed that audience psychology has certain psychological effects, including prestige effect, business card effect, self-effect, halo effect, projection effect and conformity effect. There are also significant differences in the psychological performance of different audience psychological effects. For the communication of product design, it is easier to highlight the business card effect and conformity effect. In the process of visual communication product design, consumers' purchase intention will be affected by business card effect and conformity effect. Generally speaking, the product design will convey the needs to consumers and other audience groups, absorb their views and ideas from the consumer groups, and use the business card effect to promote the consumer groups to accept the product. At the same time, consumers' consumption intention will also be affected by the conformity effect in audience psychology to a certain extent. The conformity effect is consumers' consumption conformity. Consumers' conformity psychology will less consider product value and emphasize consumers' participation in public love. From the basic idea of audience psychology, it can be seen that its core connotation can explain the psychological changes of consumers in consumption and affect the direction of product design. However, there is less correlation analysis between visual communication design products and consumers' will in many studies, so it is impossible to accurately understand the correlation between visual communication design products and consumers' will under audience psychology. Therefore, based on audience psychology, this study analyzes the impact of visual communication design products on consumers' purchase intention, and puts forward the correlation between them.

**Objective:** Analyze the thought of audience psychology when consumers participate in consumption, analyze consumers' purchase intention under the influence of audience psychology, explore the application status of audience psychology in visual communication design products, and analyze the correlation between visual communication design products and consumers' purchase intention.

**Subjects and methods:** Randomly select 60 consumers as the research object, count the psychological performance of all consumers in the purchase behavior, and understand the product expectations of all consumers through interviews. Using different consumers' expectations of products, this paper uses visual communication to design products, analyzes the changes of conformity psychology and product recognition psychology in consumers' purchase intention in different product types, and evaluates the correlation between visual communication design products and consumers' consumption intention with the help of correlation analysis.

**Results:** The analysis shows that the visual communication design methods of the product include integrating cultural symbols, combining folk art and adding favorite materials. The correlation analysis between the above methods and the changes of conformity psychology and product recognition psychology in consumers' purchase intention is shown in Table 1. Table 1 shows that there is a positive correlation between the visual communication design of products and consumers' purchase intention.

**Table 1.** Correlation between product visual communication design and consumers' consumption intention

Project	Group psychology	Product recognition psychology
Integrate cultural symbols	0.463	0.448
Combined with folk art	0.379	0.379
Add material	0.421	0.507

**Conclusions:** The growth of national economy promotes consumption in the market. At the same time, with the diversification of product design, consumers' consumption will be also changing. In order to analyze the impact of product design under visual communication design technology on consumers' consumption intention, based on audience psychology, this paper explores the correlation between visual communication technology design products and consumers' consumption intention. The results show that there is a significant positive correlation between the visual communication design mode of formal products

and consumers' consumption intention. The above results show that in order to promote consumer behavior in the market, products can be designed through visual communication to meet the psychological needs of consumers and improve the market economy in the group.

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## EFFECTS OF ANXIETY AND DEPRESSION ON CARDIOVASCULAR SYSTEM FUNCTION

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**Background:** At the psychological level, anxiety belongs to a negative emotion. It is an emotional state of tension, anxiety and fear that individuals are frustrated in their self-confidence and self-esteem because they are unable to achieve their goals or overcome obstacles. Long term and excessive anxiety will damage the patient's body function and reduce the patient's mental health level. Usually, anxiety will lead to physiological reactions such as rapid heartbeat, elevated blood pressure, trembling, sweating, dizziness and so on. Patients with excessive anxiety often have a sense of near death, loss of control and mental breakdown, so patients will lose confidence in life, leading to the idea of suicide. Depression is a psychological disease characterized by depression, slow thinking, reduced language and movement and retardation. With the increasing pace and fierce competition, anxiety and depression have become more common diseases, affecting people's physical and mental health. Many studies have shown that psychological factors can have a significant impact on the occurrence, development and prognosis of cardiovascular diseases. Anxiety, depression and other negative emotions are one of the important risk factors of cardiovascular disease. Therefore, it is necessary to find appropriate intervention methods to alleviate personal anxiety and depression and reduce the risk of cardiovascular disease.

Modern emotional psychology and cognitive psychology believe that cognitive process is not only the main factor affecting individual emotion, but also the main way to cause emotional changes. Cognitive psychology is a branch of psychology that began to rise in 1950. It mainly studies human advanced psychological processes, such as attention, perception, thinking and language. The orientation of cognitive psychology focuses on the mode of thinking and reasoning by using cognition, which is mainly to explain the law of individual psychological changes in the process of cognition. Based on cognitive psychology, this study proposes cognitive psychological intervention and cognitive behavior intervention to alleviate negative emotions and reduce the risk of cardiovascular disease.

**Objective:** Psychological factors will have a significant impact on the occurrence, development and prognosis of cardiovascular diseases. Anxiety, depression and other negative emotions are one of the important risk factors of cardiovascular disease. Using cognitive psychology, this paper puts forward cognitive psychological intervention and cognitive behavior intervention to alleviate negative emotions, improve treatment effect and reduce the risk of cardiovascular disease.

**Subjects and methods:** 40 patients with anxiety or depression were selected as the research objects in a city. The mental health status of patients was evaluated by Self-rating Anxiety Scale (SAS), Self-rating Depression Scale (SDS) and Symptom Checklist 90 (SCL-90). Myocardial Ischemia Threshold (MIT) was used to evaluate the cardiovascular function of patients.

**Study design:** Using the random number table method, 40 subjects were randomly divided into study group and control group, with 20 people in each group. The patients in the study group were intervened with cognitive psychological intervention and cognitive behavior intervention based on cognitive psychology, while the patients in the control group did not take intervention measures. After a period of time, the degree of anxiety and depression and the function of cardiovascular system were compared between the two groups.

**Methods:** The relevant data were processed and analyzed by software SPSS17.0.

**Results:** After the intervention, the scores of somatizations, obsessive-compulsive symptoms, interpersonal sensitivity, depression, anxiety, hostility, terror, paranoia and psychosis in the study group were significantly lower than those in the control group ( $P < 0.05$ ). The SCL-90 scores of the two groups are shown in Table 1.

**Conclusions:** With the increasing pace and fierce competition, anxiety and depression are common diseases, which affect people's physical and mental health. Many studies have shown that psychological factors can have a significant impact on the occurrence, development and prognosis of cardiovascular diseases. Anxiety, depression and other negative emotions are one of the important risk factors of cardiovascular disease. Therefore, it is necessary to find appropriate intervention methods to alleviate