

Influence of Personality Characteristics and Psychological Intervention on Treatment Satisfaction of Juvenile Orthodontic Patients

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ABSTRACT

Orthodontics is the correction and treatment of malocclusion deformity caused by a variety of reasons. Malocclusion malformation has a direct impact on people's facial features, while likely to cause some diseases involving the mouth in the long-term life. For adolescents, malocclusion has a great physical and mental impact. This article first have a simple overview of malocclusion deformity and orthodontic treatment, analysis of youth physical and mental development characteristics and adolescent personality traits. Through the way of completely random sampling, eighty teenage orthodontic patients can be divided into two groups, respectively as the control group and psychological intervention group. Though survey assessment after several stages treatment, explore impact on the psychological intervention in patients with juvenile orthodontic treatment satisfaction degree.

1. Introduction

The research and treatment of malocclusion deformity is an important branch of the current oral medicine. In foreign country orthodontic treatment of malocclusion deformity is known as dental orthodontics and maxillofacial correction, in domestic commonly referred to as orthodontic treatment. With the development of medical technology equipment progress, orthodontics treatment not only limited to the correction of teeth, also of alveolar bone in areas such as the jaw facial deformity were studied, to analysis pathogenesis and to explore the treatment measures. If the patients without any treatment, not only influence the facial features correct and beautiful, at the same time for each part of the oral cavity has serious influences on the development and the teeth chewing function, easy to cause systemic disease^[1]. This age is the

rapid changes in the physical and mental development of adolescents, is the key of the orthodontic treatment period. Influenced by the teenagers as the main body of the orthodontic patients, many teenagers in the face of orthodontic treatment showed anxious mood, on the one hand, is worried about micromaxillary deformity affect their appearance, on the other hand is a process for treating a variety of means of discomfort, cause psychological conflict, at the same time, it has teeth sensitivity high low tolerance of objective factors, causing them to worry about poor treatment effect^[2].

2. Overview of the Development of Malocclusion and Orthodontics

Orthodontics has gone through several stages of development and is now hundreds of years old. One of the

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first doctors in Rome began to guide patients through the hand and basic tools to correct the misalignment of teeth. It was the oldest documented technique, but it had little effect. Dentistry evolved in the Middle Ages, but there were no professional dentists, and many people started trying to correct dental parts through the profession of hairdressers. Until the modern times, with the development of industrial technology, is known as the “father of modern dentistry” French dentist Pierre Fucha published his latest book, describes in detail a precise straightening device, but even so, still orthodontics science development is very slow, it is not very effective means of micromaxillary deformity correction. In 1819, the invention of bow-wire control therapy greatly promoted the development of orthodontics, and it is also the evolution of the orthodontic techniques we use today. And with the development of technology, and new materials are being developed, production materials used in orthodontics is also enriched, steel, copper, gold, rubber, etc., in the 1960 s, a variety of technology maturity, prompted orthodontics and rapid development, has begun to use silk bow to control the tooth jaw state, achieve the goal of straight teeth. In micromaxillary deformity treatment process, modern medicine found that patients often appear psychological problems, this is due to the current living standards improve, people pay more attention to their appearance, some people looks poor growth in the learning process prone to mental insecurity, inferiority, autistic, gradually in orthodontics treatment, so the necessary psychological intervention, can better help patients regain confidence. Modern medicine actively advocates the model of bio-psycho-social medicine, and more and more people pay attention to the psychological problems caused by malocclusion. In the actual treatment process, some patients are particularly severe malocclusion, but the heart of the patient is positive and optimistic, there are also slight malocclusion, but the patient is extremely anxious, serious psychological problems. Therefore, special psychological counseling, intervention and treatment should be carried out according to the actual situation in the treatment of malocclusion ^[3].

3. Personality Analysis of Juvenile Orthodontic Patients

3.1 The Basic Features of Personality

Characteristic mentions in the definition of personality is the individual and the environment interaction, so personality in essence is also a person’s social attributes, due to the concept of personal values, behavior in the process of physical and mental development, such as de-

mand, motivation factors, each individual has a different personality traits, though in the same growth environment, characteristics of similar, but not identical, visible personality that is affected by environmental factors, also have the effect of individual subjective initiative, through the outer and inner jointly promote, make the individual foreign show different response and handling the same thing. The formation of personality is affected by a variety of factors, so after the formation of the basic personality characteristics, generally will not be easily changed, personality can profoundly reflect the individual’s mental state, in the aspect of psychology, the in-depth and comprehensive study of personality is the necessary premise of personal psychological counseling therapy. Modern psychology were studied, the basic features of the personality of the mainstream school of thought says that personality traits is generalized, individuals with neural psychological structure, each person has a different personality traits, the characteristics of wide variety, complete personality characteristics, the leading experts in the field of Eysenck personality traits as, summarized the different characteristics of collection, and categorizing the personality, can effective personality traits for factor analysis, has the very high research value ^[4].

3.2 Personality Analysis of Juvenile Orthodontic Patients

Through psychology studies have shown that personality traits are the influence of psychological factors, is a heart external performance, the key to the development of adolescent physical and mental integrity stage, its attention to the outside world and view is very sensitive, if oral micromaxillary deformity is relatively serious, has negative effect on the facial features, such as facial image, so easy to cause adolescent anxiety, panic mentality, inner stress yourself in life long learning process, produce psychological barriers, seriously affect the normal development of personal physical and mental health. Many experts and scholars on the related research, patients with moderate and severe micromaxillary deformity, afraid to face the eyes of others in our daily life, worry about discrimination and make fun of, at the same time due to tooth jaw bone deformity teeth arrangement is not whole, not in communication with people consciously to carry on the output resistance, isolated gradually, in the past for a long time to produce inferiority mentality, the results showed that micromaxillary deformity cowardice and decisive, adaptation and anxiety in patients with personal characteristics and the classification of the deformity and significantly associated with severity ^[5].

4. To Explore the Influence of Psychological Intervention on Treatment Satisfaction

4.1 Research Object

In order to study the effect of psychological intervention in patients with juvenile orthodontic treatment, especially recently in our dental treatment process by experiment or interested in 80 governance orthodontics patients, the main concentration between 12 to 20 years old age, the age is in micromaxillary deformity correction of the golden age, the sex ratio is close to 1:1, and ruled out the intelligence factor and the patients with other mental illnesses, ensure fair and objective of experimental results, and patients in the trials will experiment content in advance, to be agreed and signed written informed consent began to group. A total of 80 subjects were randomly classified by computer, including 40 in the experimental control group and 40 in the psychological intervention group.

4.2 Research Methods

The control group was treated with sliding straight wire arch correction and observed with normal medical procedures without psychological intervention. While the psychological intervention group on the basis of the sliding straight wire bow orthodontic treatment, psychological cognitive intervention, the first is before the treatment of psychological intervention, by psychological counseling, reduce patients to treatment process of nervousness and resistance point of view, and make the wrong jaw correct knowledge, make the patient know that the more correct knowledge and need to pay attention to in the process of place, reduce the fear of treatment, regularly under medical observation at the same time, closely observe changes in the process of psychological treatment, to guide their healthy psychology and good living habits, to overcome the anxiety and concern, cause patients to understand treatment is necessary and harmless. It is of great significance to the future life^[6].

4.3 Results Analysis

At each stage of the experiment, the two experimental groups were investigated with questionnaires on whether they were anxious, satisfied with the treatment process, felt good about themselves and satisfied with the treatment results.

The two groups were analyzed and evaluated during the operation, one week after the operation, one month after the operation and half a year after the operation. The main evaluation indexes were VAS pain degree, anxiety/

depression index SAS/SDS and self-efficacy index. The data were analyzed by questionnaire.

Table 1. Comparison of VAS scores between the experimental control group and the psychological intervention group

Group	VAS score		
	Intraoperative	One week after surgery	One month after surgery
Experimental control group	6.8±2.62	4.7±1.47	2.6±1.02
Psychological intervention group	4.2±1.37	2.8±0.62	1.2±0.44

Table 2. SAS/SDS scores of anxiety and depression

Group	Anxiety and depression SAS/SDS				
	Preoperative	Intraoperative	One week after surgery	One month after surgery	Half a year after surgery
Experimental control group	53.5±10.6	64.8±9.62	64.7±8.47	62.6±8.02	61.7±7.47
Psychological intervention group	52.6±8.2	54.2±8.37	42.8±7.62	38.2±7.44	32.8±6.62

Table 3. Comparison of self-efficacy scores

Group	Self-efficacy score			
	Preoperative	One week after surgery	One month after surgery	Half a year after surgery
Experimental control group	2.21±0.37	2.28±0.21	2.47±0.4	2.52±0.42
Psychological intervention group	2.24±0.36	2.43±0.32	2.66±0.27	2.86±0.51

The results showed that: (1) There was no significant difference in emotional anxiety between the two groups at the initial stage of treatment; in the middle stage of treatment, there were significant emotional fluctuations in the experimental control group; anxiety and depression showed a cumulative state with the treatment time; and the rise curve of emotional anxiety in the psychological intervention group was significantly slower. (2) In terms of post-treatment quality of life, compared with the experimental control group, the psychological intervention group was significantly better than the experimental control group in terms of positive emotional expression, happiness, satisfaction and self-value improvement after treatment.

5. Conclusion

Modern medicine actively advocates the model of bio-psycho-social medicine, which lays a foundation for the development of modern stomatology. In recent years, more and more attention has been paid to the psychological problems caused by malocclusion. Malocclusion can cause some mental health problems, which is not conducive to the healthy and happy growth of teenagers. Psychological intervention in the process of juvenile orthodontic treatment can effectively improve the patient's self-efficacy, greatly ease the treatment process of the negative factors, such as pain, discomfort, risk reducing psychological problems, keep positive and optimistic attitude, increase the degree of recognition of treatment process and result, improve the quality of life, improve the effect of correction, is worth for popularization and application in the process of oral orthodontic treatment.

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