

On the Construction of the First Class Course of Oral Preventive Medicine in the Context of Healthy China Strategy

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Abstract

In the context of a healthy China strategy, new requirements have been put forward for stomatologists. By creating first-class courses, improve the “high-level, innovative and challenging” of stomatology professional courses to achieve the training of students’ comprehensive ability of innovation and practice. By analyzing the current situation and existing problems in the teaching of oral preventive medicine, this paper discusses the construction path of the first-class curriculum of oral preventive medicine from the aspects of the restructuring of curriculum objectives, the construction of curriculum resources, the reform of teaching implementation and evaluation, etc., so as to provide reference and reference for the construction of the first-class curriculum of undergraduate courses, and at the same time, to contribute to the construction of a healthy China by cultivating the professional talents of oral preventive medicine who adapt to the national conditions and the requirements of the times.

Keywords

Healthy China Strategy, Oral Preventive Medicine, First-Class Courses

1. Introduction

On October 25, 2016, the Outline of the “Healthy China strategy 2030” Plan was officially released, which requires the implementation of prevention first and the promotion of a healthy lifestyle to reduce the occurrence of diseases, strengthen the diagnosis, treatment and rehabilitation of diseases, and achieve health for all (The CPC Central Committee and the State Council Issued the Outline of the “Healthy China 2030” Plan, 2016). Oral health is one of the key topics in the “Healthy China 2030” Planning Outline. It is clearly proposed to “strengthen

oral health work”, carry out special actions such as healthy weight, healthy Oral and healthy bones, and control the caries rate of 12-year-old children within 25% by 2030. However, the current oral diseases of Chinese residents are not optimistic. According to the fourth national oral health epidemiological survey report of China, the incidence of caries in children is increasing rapidly, and the periodontal health of middle-aged and elderly people needs to be improved. In this context, this has put forward new requirements for stomatology education.

In 2018, the Ministry of Education proposed for the first time to “eliminate boring courses” and “create golden courses”, emphasizing the important role of curriculum construction in college talent training (Wu, 2018). The construction of first-class courses is an important measure to realize the connotative development of higher education in the new era. How to realize the organic integration of students’ knowledge, ability and quality by creating first-class courses in the context of a healthy China, How to cultivate students’ comprehensive ability of innovation and practice by improving the “high-level, innovative and challenging” of oral preventive medicine courses has become a practical problem before us.

Oral preventive medicine is a core course of stomatology, which mainly studies the prevalence of common oral diseases in the community and its influencing factors, formulates strategies and measures to prevent and control oral diseases, and takes effective measures to prevent and treat oral diseases. It plays a very important role in cultivating new stomatology talents who pay equal attention to prevention and treatment, and improving the oral health level of the whole population (Li, Jin, & Ren, 2022). How to face the impact of students’ pursuit of economic value in the social environment, stimulate students’ enthusiasm for the study of oral preventive medicine curriculum under the background of “emphasizing treatment over prevention”, and cultivate their practical innovation ability has become an important issue that teachers pay attention to. Based on the analysis of the problems in the teaching of oral preventive medicine, this paper explores and analyzes the path of first-class curriculum construction in order to provide reference for the construction of first-class undergraduate curriculum.

2. The Current Situation and Problems of Oral Preventive Medicine Teaching

In 2002, our school offered this course to undergraduates majoring in stomatology, with 39 class hours, 24 theoretical courses and 15 practical courses. The curriculum has gone through the initial stage and the reform exploration stage, which mainly focuses on injection teaching. There are the following problems in the past teaching process.

1) The ideological and political focus of the curriculum is not clear, and the leading role of professional curriculum value is not significant

Fostering virtue through education strengthens morality education is the foundation of running a socialist university with Chinese characteristics. In December 2016, General Secretary Xi Jinping pointed out at the National Conference

on Ideological and Political Work in Colleges and Universities that to make good use of the main channel of classroom teaching, the ideological and political theory course should adhere to strengthening in the process of improvement, enhance the affinity and pertinence of ideological and political education, and meet the needs and expectations of students' growth and development. Other courses should keep a good channel and plant a good responsibility field, so that all kinds of courses and the ideological and political theory course can go hand in hand, forming a synergistic effect (Xi, 2016). As a professional course, we should give full play to the role of the main battlefield of moral cultivation and collaborative education, so that students can establish a correct outlook on life and values, and cultivate lofty professional ideals and good professional attitudes. However, in the current medical service system, the situation of "paying more attention to clinical treatment than disease prevention" is more prominent. Influenced by the social environment, students pursue economic value. The concept of "paying more attention to treatment than prevention" is widespread, and they do not pay enough attention to oral preventive medicine courses (Jiang & Zhou, 2019). In the teaching process, the teachers were not clear about the ideological and political focus of the oral prophylaxis course. The ideological and political education elements contained in the course were not fully explored, and the education effect was not significant enough, which needs to be further strengthened.

2) The teaching content is not systematic

The main teaching contents of oral preventive medicine include oral epidemiology; Prevention of caries, periodontal disease and other oral diseases; Fluoride and dental health; Self oral health care methods; Clinical oral preventive techniques; Oral health promotion; Community oral health service, oral health service and oral health policy, infection and control in oral health care practice. Oral epidemiology includes the epidemiology of dental caries, periodontal disease and other oral diseases, which is out of touch with the prevention knowledge of subsequent diseases. At the same time, some teaching contents, such as the occurrence and prevention of caries, periodontal disease and oral cancer, were also mentioned in the previous "Operative Dentistry and Endodontics", "Periodontology" and "Oral and Maxillofacial Surgery". Therefore, there are problems such as the intersection of courses and the contents of courses, and the disconnection of teaching contents in courses.

3) The teaching mode is more teacher-centered, and students are less active in thinking

Teaching methods and means play a vital role in curriculum teaching. At present, the oral preventive medicine curriculum mainly adopts the traditional teaching method, that is, teachers give priority to teaching. Teachers teach in class through textbooks and PPT. Most of them are teacher-centered, mainly "indoctrination" teaching, and students are passive in listening. The teacher-centered teaching mode leads to the reduction of students' participation and lack of enthusiasm for learning. Students may not listen carefully, play with their mobile phones or sleep in the classroom (Liu, Jia, & Luo, 2022). Teachers' teaching emotions will be af-

fectured thereby, which will reduce the efficiency of classroom teaching. This vicious circle is not conducive to classroom teaching of oral preventive medicine.

4) The curriculum evaluation emphasizes the results over the process, and the challenge is not enough

Course evaluation is an important part of evaluating the teaching effect. In the past, the traditional evaluation method was used for the teaching evaluation of oral preventive medicine, that is, to evaluate the students' learning achievements based on the examination results, focusing on the results rather than the process, and ignoring the students' learning emotions and thinking activities. The single evaluation method cannot comprehensively measure the overall effect of students' learning, and cannot cover all aspects and the whole process of teaching. Teachers are unable to obtain accurate curriculum teaching effect data, which is not conducive to the improvement of curriculum teaching plan and teaching effect (Zhu, 2020).

3. The Construction Path of the First Class Course of Preventive Dentistry

1) Formulate training objectives adapted to the background of healthy China

Oral preventive medicine is a core course of stomatology. Combining with the school's orientation, it strives to cultivate advanced applied stomatology talents who are "humanistic, skilled and able to develop" and have the ambition of "serving the grassroots, being diligent, loving the post, and being hard-working". The curriculum objectives are formulated from three dimensions of knowledge, skills and emotions. Through learning, improve the understanding of basic knowledge such as risk factors and prevention methods of common diseases, broaden the understanding of the latest progress of oral disease prevention technology, strengthen the understanding of the relationship and interaction between oral preventive medicine knowledge and clinical practice, master the operation skills of appropriate oral prevention techniques, have the ability to carry out oral health survey and analysis, have the ability to carry out oral disease prevention and health education, improve the comprehensive quality of serving oral health needs, set up the concept of labor service and disease prevention, cultivate students' sense of social responsibility, and take the health of patients and communities as their own professional ethics.

2) Strengthen the construction of curriculum resources

a) Course ideological and political construction

Combining the construction requirements of "three integrity education" and "five dimension education" with the background of China's great health and the characteristics of the curriculum, we will explore the ideological and political elements and form typical curriculum ideological and political cases from the aspects of professional course knowledge points, social hot issues, discipline development history, master growth path, etc. For example, the story of epidemic resistance, the story of Lek Huwen, the story of the three Bianque brothers, and

the story of Sun Simiao, the medicine sage, the discussion on the prevention of pit and fissure caries, and the discussion on “bisphenol A”, etc.

Through the Teeth-care Day, the National Comprehensive Intervention Program for Children’s Oral Diseases, and the “Three Visits to the Countryside” practical activities, students’ feelings of serving the grass-roots level were cultivated, and their hard-working quality was tempered.

b) Construction of online teaching resources

The technology of “Internet and education”, modern tools and innovative teaching concept were deeply integrated into the curriculum of oral preventive medicine, and theoretical teaching resources were built based on the wisdom tree platform.

According to the course objectives, we will refine knowledge points, record micro class videos, introduce clinical case speculation, improve the high-level and speculative nature of the course, introduce basic oral disease prevention exercises, and improve the innovation of the course. Relying on the advantages of big data platform, we have built a question-answering system for teachers and students, students and students to answer and question each other, breaking through the traditional question-answering mode based on class and time and space boundaries, and improving students’ autonomous learning ability.

Carry out the construction of online practical teaching resources, and build a hybrid experimental system that combines virtual and real online and offline. Develop and apply virtual simulation experiment projects such as tooth brushing, pit and fissure sealing, supragingival scaling, and highlight the cultivation of ability to solve professional problems.

c) Construction of offline teaching resources

The teaching concept of “student-centered and output-oriented” integrates and optimizes offline teaching resources. We should fully explore the students’ active learning in teaching plans, lecture notes design and other links, so that teachers’ passive teaching can become students’ active learning.

Integrate the teaching content, and distinguish the teaching modules by “systematic guidance”, “thematic discussion” and “project-based training” according to the characteristics of the teaching content. The “systematic introduction” includes important knowledge content, such as the introduction of the course, core concepts, research methods and other important theories. “Thematic discussion” carries out thematic teaching for the prevention of typical diseases or groups, and takes “epidemic situation of diseases—evaluation indicators—risk factors of diseases—prevention methods of diseases” as the main line to teach knowledge points in series. “Project-based training” includes the training project of basic methods of oral clinical prevention.

Establish a practice teaching base for out-of-school oral preventive medicine, including surrounding kindergartens and primary schools, classes of nonstomatological departments, maternity schools of affiliated hospitals, etc. Set up a teaching practice base, organize students to go out of the classroom and into the prac-

tice teaching base according to teaching requirements, and carry out on-site oral hygiene education for specific groups in the practice base.

3) Teaching implementation and assessment

Teaching implementation process

Based on the teaching concept of “student-centered, output-oriented”, the mixed teaching mode is adopted to implement teaching, and intelligent technology is appropriately applied to the classroom. Before class, organize students to learn online resources autonomously and conduct a self-test of parallel chapters, and prepare the difficulties and highlights of the teaching chapters for discussion in class. In the class, teachers focus on the key and difficult problems of the course, create teaching situations, guide students to ask questions, and promote “communication feedback” between teachers and students in the form of group discussion. Teachers give feedback and guidance to students’ questions, opinions and other information. Cultivate students’ ability to analyze problems comprehensively, professional quality and values. After class, students can improve their high-level thinking ability by reviewing and summarizing online knowledge points, completing homework and interactive discussion.

Ideological and political education runs through the whole process of teaching. Clarify the goals that the curriculum needs to achieve in terms of knowledge, ability, emotional attitude and values. The application of curriculum ideology and politics to the design of curriculum objectives and the preparation of teaching plan courseware runs through classroom teaching, teaching discussion, experimental training, extracurricular practice and other links.

4) Course evaluation

Build a “three-three-eight” evaluation model. From the three dimensions of knowledge and skills, emotional attitude, innovation and practice, the three stages of classroom test, peacetime assessment and final assessment, through written examination, online learning test discussion, classroom performance, social practice, skill operation, literature reading, research and initial training results, and the creation of popular science works, the process evaluation reached 70%. Online learning (5%) is measured by the number of video learning, homework and discussion; Online test (15%); Classroom performance (15%) mainly focuses on discipline, attitude and cooperation; Social practice performance (10%); Operation skill assessment (15%) and high-level learning ability assessment (10%) mainly focus on the students’ high-level professional literature reading, scientific research preliminary training achievements, and the creation of popular science works. According to the comprehensive assessment results, each student will be assessed on the achievement of knowledge, ability and professional quality leading objectives, and the quality of courses will be improved through student self-evaluation, process evaluation, achievement evaluation, continuous improvement and other diversified evaluations.

The teaching concept of “student-centered” and active application of modern tools and technologies are highlighted in the evaluation of each teaching link,

and the proportion of students' online mutual doubt discussion, virtual operation practice ability, oral disease prevention skills application ability and team cooperation and communication ability is highlighted, so as to improve the students' thinking ability and high-level. In practical application, students' oral health education practice ability is evaluated through a series of assessment methods such as on-site evaluation, questionnaire, knowledge assessment, team cooperation, communication ability, etc.

4. Course Construction Effect

After years of unremitting efforts of the teaching team, oral preventive medicine was approved as the provincial first-rate offline course in 2022, promoting team growth and achieving outstanding reform results. It has cultivated a teaching team with advanced teaching concepts, smart education means and distinctive curriculum education features. It won the first prize of Guangxi curriculum ideological and political teaching team, the first prize of Guangxi higher education autonomous region level teaching achievements, the second prize of the national micro course competition medical category, the second prize of Guangxi stomatological young teachers' teaching and curriculum ideological and political competition, and the second prize of Guangxi university education and teaching informatization competition.

The students have solid basic knowledge and skills. The examination results of licensed doctors are higher than the national average. They have won many awards in the national oral medicine undergraduate clinical operation skills competition and the activities of the China Dental Foundation. Students' innovation ability has been significantly improved. In recent years, they have won 36 innovative and entrepreneurial projects and 4 patents.

Students' awareness of basic level services was enhanced, and 98.6% of students participated in basic level health care services. In recent years, 71% of graduates have taken root in the grassroots.

5. Epilogue

The quality of curriculum construction directly determines the level of talent training. Focusing on the national stomatological talent training goal and combining with the background of a healthy China, we have explored the teaching reform from the aspects of curriculum objectives, curriculum content, teaching mode and assessment system in accordance with the first-class curriculum construction standard, effectively improving the teaching quality, training new stomatological talents for regional oral health services, and contributing to the construction of a healthy China.

Projects

1) Guangxi higher education undergraduate education teaching reform Project (Project No. 2021JGA278).

2) Guangxi degree and postgraduate education reform project (Project No. JGY2019162).

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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