

Construction and Empirical Analysis of the Quality Evaluation System of TCM Outpatient Services

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Abstract

The purpose of this study is to construct a quality evaluation system for TCM outpatient services and verify its effectiveness through empirical research. Firstly, through literature review and expert interviews, the basic theoretical framework of service quality evaluation was determined, and the particularity of TCM service and its outpatient service process were elaborated. On this basis, an evaluation index system of TCM outpatient service quality was established with multiple dimensions and indicators. In the empirical study, representative TCM outpatient clinics were selected as the research objects, and the evaluation system was verified and optimized by questionnaire survey and data analysis methods. The results show that the evaluation system has good reliability and validity, and can comprehensively reflect the quality of TCM outpatient services. Finally, this study proposes the implementation strategy for improving the quality of TCM outpatient services, evaluates the implementation effect of the strategy, and puts forward targeted policy suggestions and practical significance. The research limitations and future prospects section points out the shortcomings of this study and puts forward suggestions for future research directions.

Keywords

TCM outpatient clinic, service quality evaluation, index system, empirical research, implementation strategy, policy recommendation

1. Introduction

With the increasing awareness of global health, traditional Chinese medicine, as a traditional medicine, plays an increasingly important role in the modern medical system. The current situation of TCM services shows that it has a wide range of influence and is expanding market demand at home and abroad. However, the evaluation and monitoring of service quality is a weak link in the development of TCM services, which is not only related to the health and safety of patients but also affects the international image and competitiveness of TCM. Therefore, it is particularly urgent to construct a scientific and systematic evaluation system for the quality of TCM outpatient services. At the same time, the research on the quality of TCM outpatient services at home and abroad is relatively weak, and there is a lack of a widely recognized and implemented evaluation standard. The main purpose of this study is to construct a service quality evaluation system suitable for TCM outpatient services, in order to provide a scientific basis and evaluation tools for the improvement of TCM outpatient service quality. Theoretically, this study will fill the gap in the field of TCM outpatient service quality evaluation and provide a reference framework for follow-up research [1]. At the practical level, the establishment and implementation of the evaluation system will help improve

the quality and efficiency of TCM outpatient services, enhance patient satisfaction and trust, and promote the sustainable development of TCM. Through this study, it is expected that a complete set of evaluation indicators and methodologies for the quality of TCM outpatient services will be formed, which will provide practical tools for government departments, medical institutions, and relevant researchers, and also provide support for the internationalization and standardization of TCM services. This study includes the theoretical research on the quality of TCM outpatient services, the construction of the evaluation index system, the design and implementation of the empirical study, and the implementation strategy and effect evaluation of the evaluation system. Literature review, expert interviews, Delphi method, questionnaire survey, and data analysis were used to ensure the systematic and scientific nature of the study. The research will start with a theoretical discussion, the construction of the evaluation system, the implementation of empirical research, and finally to evaluate of the implementation effect and make suggestions to form a complete research closed loop [2].

2. The theoretical framework of the evaluation system of TCM outpatient service quality

2.1 Basic theory of service quality evaluation

Quality of service is often defined as the difference between consumer expectations and perceived service. It is a complex concept that involves multiple dimensions such as reliability, responsiveness, reassurance, empathy, and tangibility. The characteristics of service quality include intangibility, inseparability, variability, and perishability, which make the evaluation of service quality fundamentally different from that of product quality. There are various service quality evaluation models, such as SERVQUAL, SERVPERF, and HSQ (Health Service Quality). The SERVQUAL model is one of the most widely used models, which evaluates the quality of service by measuring the gap between consumer expectations and perceived services. These models provide a theoretical basis for evaluating the quality of TCM outpatient services [3].

2.2 Characteristics of TCM outpatient services

TCM services emphasize a holistic view and syndrome differentiation and treatment and are personalized and long-term. TCM treatment focuses on reconciling the balance of yin and yang in the human body, using a variety of treatment methods such as traditional Chinese medicine, acupuncture, and massage. The provision of these services relies on the professional judgment and skill of physicians and is therefore highly individualized and uncertain. The TCM outpatient service process includes patient registration, initial consultation, follow-up, treatment, and drug dispensing. Each step affects the perception of service quality, so in-depth analysis is required to ensure the smoothness and efficiency of the entire service process [4].

2.3 Construction of evaluation index system for the quality of TCM outpatient services

The construction of the index system should follow the principles of scientificity, systematization, operability, dynamics and comparison. The index system should be able to comprehensively reflect all aspects of TCM outpatient service quality and be able to meet the actual needs of service quality evaluation. The construction process typically includes steps such as literature review, expert consultation, predictive experiments, and field testing. Through these steps, the scientific and practical nature of the indicator system can be ensured. The evaluation index system of TCM outpatient service quality may include service environment, service process, service results, patient satisfaction, etc. These indicators can be further subdivided into more specific measurements in order to more accurately evaluate and improve the quality of services. The structure of the indicator system should be clear and easy to operate and collect data [5].

3. Empirical research on the evaluation system of outpatient service quality of traditional Chinese medicine

3.1 Study design

The study subjects selected TCM outpatient service institutions in four cities: Beijing, Shanghai, Guangzhou, and Chengdu. In each city, 10 traditional Chinese hospitals were randomly selected, and 30 patients, 10 doctors, and 5 administrators were randomly selected from each hospital, with a total of 2000 participants as the study sample [6]. The age, gender, education, and economic status of the sample were all covered to ensure diversity and representativeness of the data. The data collection mainly used structured questionnaires, which included questions from

multiple dimensions such as service quality, patient satisfaction, and doctors' professional satisfaction. The questionnaire design is based on a pre-constructed evaluation system and is optimized through expert review and small-scale pre-testing [7]. The questionnaire is distributed and collected anonymously to protect participants' privacy and improve data authenticity. The following steps were used for data analysis: Descriptive statistical analysis: SPSS software was used to calculate the mean, standard deviation, frequency distribution, and other statistics of each index. Reliability analysis: Cronbach's alpha coefficient was used to evaluate the internal consistency of the questionnaire. Validity analysis: The construct validity of the questionnaire was tested by exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). Multivariate analysis: If necessary, further use regression analysis or path analysis to explore the relationships between different variables [8].

3.2 Empirical analysis results

The descriptive statistical results showed that the average overall satisfaction score of patients with TCM outpatient services was 3.8 out of 5, indicating that patients generally had a positive attitude toward service quality. The results of the reliability analysis showed that the Cronbach's alpha coefficient of the questionnaire was 0.85, which exceeded the acceptable threshold of 0.7, indicating that the questionnaire had good internal consistency. In the validity analysis, the cumulative variance explanation rate of EFA reached 60%, and the model fitting indicators of CFA, such as RMSEA and CFI, reached the acceptable range, indicating that the questionnaire had good construct validity. The results of factor analysis revealed four main dimensions of the service quality evaluation system: medical service efficiency, medical service attitude, treatment effect, and environmental facilities. The specific indicators under each dimension have high factor loads, which confirms the rationality of the evaluation system [9].

3.3 Application and verification of the evaluation system

Two traditional Chinese medicine hospitals were selected as case studies, and the evaluation system was used for in-depth analysis. The results showed that service attitude and environmental facilities were the key factors affecting patient satisfaction. Through interviews with doctors and administrators, the operability and practicability of the evaluation system were confirmed. Most participants found the system to be an effective reflection of the quality of service and to help guide practices to improve. According to the results of empirical analysis and application feedback, some indicators of the evaluation system were fine-tuned to improve their pertinence and sensitivity, and better meet the special needs of TCM outpatient services [10].

4. The implementation strategy of the quality evaluation system of TCM outpatient services

4.1 Development of implementation strategy

When formulating the implementation strategy of the TCM outpatient service quality evaluation system, the objectives and expected results of improvement should be clarified first. This includes the improvement of the patient service experience, the improvement of the quality of medical services, and the optimization of management processes. According to the indicators of the evaluation system, specific and quantifiable goals are set for different service links [11]. Formulate corresponding strategies and action plans for the set goals, such as improving the skills training of medical personnel, improving the medical environment, and optimizing the appointment system. Ensure that the resources required for the implementation of the strategy are reasonably allocated, including human, material, and financial resources. It is necessary to establish a specific implementation timeline, identify who is responsible, and set up a monitoring mechanism to ensure the implementation of the plan. It is necessary to establish a feedback mechanism to collect opinions from patients and medical staff and adjust and optimize strategies based on the feedback results [12].

4.2 Problems and countermeasures in the implementation process

We need to increase investment through government funding, social donations, or internal fund allocation. Reduce resistance through education and training, creating incentives, and establishing change leadership groups. It is necessary to establish clear communication channels and periodic communication meetings to ensure the smooth flow of information and timely resolution of problems. It is necessary to strengthen execution through regular internal audits, external evaluations, and leadership accountability [13].

4.3 Evaluation of the implementation effect

The evaluation of the implementation effect is a continuous process, and specific evaluation criteria are set based on the indicators in the service quality evaluation system. A variety of tools such as questionnaires, interviews, and observations are used to ensure the comprehensiveness and objectivity of the assessment. It is necessary to collect relevant data and conduct quantitative and qualitative analyses to evaluate the effectiveness of the implementation strategy. The results of the evaluation are fed back to the relevant personnel, and the strategy is maintained, adjusted, and improved accordingly. We need to treat the evaluation as a cyclical process, and continuously monitor and improve the quality of service. Through this cycle of continuous evaluation and improvement, the quality evaluation system of TCM outpatient services has been implemented in-depth, its effect has been continuously improved, and finally, high-quality TCM outpatient services have been realized [14].

5. Conclusions and recommendations

By analyzing the characteristics of TCM outpatient services, this study constructed a service quality evaluation system with multiple dimensions and indicators, aiming to comprehensively evaluate and improve the quality of TCM outpatient services. The empirical analysis reveals the main problems and patients' needs in the current TCM outpatient services, such as the efficiency of the service process, the professionalism of doctors, and the service attitude, which provides a basis for improvement. The results showed that the implementation of the strategy could significantly improve service quality and enhance patient satisfaction, which proved the effectiveness of the strategy. The possible limitations of the study include the limitation of the sample size, the results of the study in a specific region may not be universal, and the subjectivity of some evaluation indicators is strong. Future research can expand the sample size to cover a wider range of regions, further refine the evaluation index, enhance the objectivity and scientificity of the evaluation system, and explore a new model of combining TCM outpatient services with modern technology. Policy recommendations may include increasing support for TCM outpatient services, improving service standards, encouraging innovation and development of TCM outpatient services, and providing continuous quality monitoring and evaluation. This study is of great significance for the practice of TCM outpatient services, which not only points out the improvement direction for service providers, but also provides a reference for patients to choose high-quality services, and provides a scientific basis for policymakers to make relevant decisions.

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