

# A study on the cultivation of psychological stress management ability of medical personnel based on case teaching



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**Abstracts:** Medical work is often accompanied by high-intensity pressure and emotional load, and the impact of psychological stress on medical personnel cannot be ignored. In such a background, case teaching, as a teaching method with strong practicability and high interactivity, provides an effective way to cultivate the psychological stress-handling ability of medical personnel. This paper discusses the application of case teaching around the cultivation of the psychological stress-handling ability of medical personnel. The importance of psychological stress in medical personnel as well as its purpose and significance are introduced, as well as the advantages of case teaching in the cultivation of psychological stress handling ability and the limitations and challenges faced by case teaching. This is followed by a brief overview of the key steps of identifying training objectives and needs, collecting and screening suitable cases, designing case teaching activities, implementing case teaching, and assessment and feedback. Effective psychological stress management skills can help medical staff better cope with stress and challenges at work, enhance their psychological resilience and adaptability, and thus improve work effectiveness and provide better patient care.

**Keywords:** medical staff; psychological stress; case teaching

## Introduction

Medical professionals are professionals with key roles and important responsibilities, and they often face a variety of psychological stresses in their daily work. Psychological stress refers to the psychological pressure and negative emotional experiences caused by factors such as the work environment, job requirements, and interactions with patients. Effective management of psychological stress is crucial for healthcare professionals because it is directly related to their mental health, work performance, and relationships with patients. Therefore, it is of great significance to cultivate the psychological stress-handling ability of medical personnel. The case teaching method, as an effective way to cultivate the psychological stress management

ability of medical personnel, can help them better cope with the pressure and challenges in their work, enhance their work performance, and promote good relationships with patients. Through actual case analysis and experience sharing in case teaching, medical staff can obtain more specific and practical coping strategies, thus enhancing their psychological resilience and adaptability.

## 1. Concept and impact of psychological stress

### 1.1 Definition and types of psychological stress

Psychological stress refers to the psychological and emotional reactions that occur when an individual faces a stressor. Medical personnel are often in high-pressure and tense working environments, enduring tremendous work pressure and emotional loads, and thus susceptible to the effects of psychological stress. Psychological stress

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can be categorized into various types, including task stress, interpersonal stress, and occupational role conflict stress. Task stress arises from the requirements and pressure of work tasks, such as excessive workload and tight time constraints; interpersonal stress involves interactions and conflicts with patients, family members, or coworkers; and occupational role conflict stress arises from the conflicts and contradictions in the role positioning and expectations of medical staff. Understanding the effects of different types of psychological stress on medical staff can lead to better strategies and methods for developing psychological stress management skills to enhance the mental health and work performance of medical staff.

### **1.2 Effects of psychological stress on medical personnel**

Psychological stress has a far-reaching impact on medical personnel. First of all, psychological stress may lead to mental health problems for medical personnel. Continuous work pressure and emotional load may trigger anxiety, depression, insomnia, and other psychological disorders, and in serious cases, it may also lead to psychological fatigue and burnout. These problems not only affect medical staff's personal well-being and quality of life but also hurt work performance and patient care. Second, psychological stress can also lead to a decline in medical staff's work performance. When medical personnel are under prolonged stress, attention, concentration, and decision-making abilities may suffer, which may affect work accuracy and efficiency. In addition, psychological stress may cause medical staff to lose focus, miss important details, or neglect patients' needs, posing a potential threat to medical safety (Wang et al., 2012). In addition, psychological stress may negatively affect the relationship between medical staff and patients. When healthcare professionals face stress and challenges, they may experience emotional states such as mood swings, exhaustion, or frustration, which may affect their communication and interaction with patients. In this situation, medical

staff may have difficulty in providing a warm and caring attitude and giving adequate support and comfort to patients, which in turn negatively affects patient satisfaction and treatment outcomes. Therefore, it is particularly important to develop the psychological stress management skills of medical staff to help them effectively cope with stress and challenges at work and to promote overall healthcare team effectiveness.

## **2. The role of case teaching in the development of the psychological stress management ability of medical personnel**

### **2.1 Advantages of Case Teaching in the Cultivation of Psychological Stress Handling Ability**

Case teaching is a teaching method that uses real or virtual cases as learning materials and promotes learning and knowledge application by analyzing and discussing the problems, challenges, and solutions in the cases. Case-based teaching can provide contextual restitution and realism by placing learners in authentic psychological stress situations. By analyzing and exploring the problems and challenges in real cases, learners can better understand and experience the psychological stress scenarios that they may encounter in their medical work, and thus more accurately apply appropriate coping strategies. Case teaching emphasizes experience sharing and interactive communication. Learners can share their personal experiences, opinions, and solutions in case analysis, and discuss and interact with other learners. Such exchanges and cooperation can bring different perspectives and ways of thinking, promote knowledge sharing and experience borrowing among learners, and thus enrich the ideas and methods of problem-solving. Case teaching can also improve learners' motivation and participation. Through fascinating case plots and analysis of actual cases, learners can participate in the learning process more actively and positively. They develop a strong interest in solving the problems and challenges in the case, which enhances their motivation to learn and desire for hands-on

practice (Cheng et al., 2023). This teaching method can stimulate learners' thinking and hands-on practice skills, develop their stress management skills, and help them better cope with the psychological stress and challenges in medical work.

## **2.2 Limitations and challenges of case-based teaching**

Although case teaching has several advantages, there are also some limitations and challenges. Carefully preparing and designing authentic and effective cases requires a significant investment of time and manpower, and in the medical field, time is usually very tight, so it may be difficult to fully apply case teaching. Case-based teaching involves authentic situations and sensitive information, which may involve privacy and confidentiality issues. In the case of teaching, real medical situations or individual cases are used, but this information needs to be handled with the patient's consent and confidentiality, or else it is exposed to ethical and legal risks (Huang et al., 2018). In addition, engagement and assessment of learning outcomes of case-based teaching can be a challenge. Learners' participation in case discussions and interactions requires motivation and initiative, and some learners may be reluctant to participate due to personal factors or shyness. At the same time, the assessment of learning outcomes of case-based teaching is also relatively complex because many subjective factors are involved and it may not be easy to assess whether learners have truly mastered stress management skills. When applying case-based teaching, it is necessary to recognize these limitations and challenges and find solutions to ensure the effectiveness and feasibility of case-based teaching.

## **3. Strategies for the cultivation of psychological stress management ability of medical personnel based on case teaching**

### **3.1 Determining training objectives and needs**

Determining cultivation goals and needs is the key first step in case teaching. When cultivating the psychological stress management ability of medical personnel, it is necessary to clarify the objectives, i.e., in what aspects the learners are expected to be

improved. This may include the learners' competencies in emotional regulation skills, decision-making skills, communication skills, and other aspects needed to cope with psychological stress at work. At the same time, it is also necessary to tailor the training program according to the learners' background and actual needs, to ensure that the training content is closely integrated with the actual work, and can solve the actual problems of medical personnel in psychological stress management (Dai et al., 2022). By clarifying the goals and needs, the case selection, teaching design, and assessment methods can be better guided, so that case teaching can play a better role in cultivating the psychological stress management ability of medical personnel. For example, the work of medical staff is often full of tension and stress, and thus learning effective self-regulation and relaxation techniques is crucial for maintaining psychological well-being. Case-based instruction can be used to focus on how healthcare workers can cope with psychological stress at work through self-regulation and relaxation techniques. This includes guiding healthcare workers to adopt techniques such as meditation, breathing exercises, and leisure activities when coping with stress. Through case teaching, medical staff can realize from learning to practical self-regulation and relaxation techniques to enhance psychological resilience, strengthen the ability to withstand psychological stress, and better cope with various challenges in medical work.

### **3.2 Collecting and screening suitable cases**

Collecting and screening suitable cases is an important step in case teaching. In developing the psychological stress management ability of medical personnel, it is necessary to collect real cases or virtual cases that are closely related to medical work and cover different types of psychological stress situations. These cases should be realistic and representative, reflecting the real psychological stress scenarios that medical staff may face in their work (Zhang et al., 2022). During the collection process, it is necessary to ensure that patients' privacy is protected, and the cases can be desensitized or use

fictional situations. Next, the collected cases are screened and selected to match the training objectives and needs for teaching. The screened cases should be educational and revelatory, capable of triggering learners' interest and thinking and promoting the enhancement of their psychological stress management ability. By carefully collecting and screening suitable cases, the relevance and effectiveness of case teaching can be enhanced, so that learners can get better learning experiences and results from it.

### 3.3 Designing Case Teaching Activities

Designing case teaching activities is a key step to effectively guide medical personnel to develop psychological stress management ability. In the design process, it is necessary to combine the collected cases, clarify the learning objectives, and determine the teaching content and teaching methods. A challenging and representative case can be selected as the core case for teaching. Then, learners are inspired to think and discuss by guiding them to analyze the psychological stress problems, challenges, and solutions in the case. Diversified teaching methods such as group discussion, role-playing, and debate can be used to increase the interest and interactivity of learning. At the same time, learners are guided to summarize valuable experiences and lessons from the cases and combine theoretical knowledge with practical applications (Zhang et al., 2020). Designing inspiring and interactive case-teaching activities, can stimulate learners' interest in learning, develop their practical and problem-solving abilities, and help them better cope with the challenges of psychological stress in medical work.

### 3.4 Implementation of case teaching

Implementing case teaching is an important stage of putting designed teaching activities into practice. In the process of implementation, it is necessary to prepare teaching materials and case information and to ensure the appropriateness of the teaching environment and facilities. Then, guiding the learners to go deeper into the case analysis and discussion step by step, to stimulate their interest and

participation in learning. Necessary background knowledge and theoretical support can be provided at the right time to help learners better understand and apply the situations and problems in the case. During the teaching process, learners are encouraged to actively express their views, share their experiences, and learn from and inspire each other in interactive exchanges. Teachers should become guides and facilitators, guiding learners to explore and discover on their own, and cultivating their critical thinking and problem-solving abilities (Jin et al., 2019). The implementation of case teaching should pay attention to the learners' learning experience and feedback, and adjust the teaching strategy in time to ensure that the teaching effect is maximized. Through the careful implementation of case teaching, learners can improve their psychological stress-handling ability in hands-on participation and practice, and provide more valuable experience and skills for future practical work.

### 3.5 Evaluation and Feedback

Assessment and feedback is a crucial part of the case teaching process. After developing the psychological stress management ability of medical personnel, assessment is needed to understand the learning outcomes and ability development of the learners. Assessment can include observation of individual or group performance, case study reports, grading, and many other ways. Through assessment, it is possible to determine the degree of learners' mastery of the knowledge and skills acquired through case-based instruction and to evaluate and improve the effectiveness of the instruction. In addition, learners are given personalized feedback promptly, pointing out their strengths and areas for improvement to motivate them for further learning. Feedback can be verbal, written, or provided through assessment tools designed to promote learner reflection and self-improvement (Ma et al., 2008). Through assessment and feedback, the design and implementation of case-based teaching can be continuously improved to enhance the effectiveness of developing psychological stress management skills and to help healthcare professionals better cope

with psychological stress challenges in practice.

### Summarize

Case teaching has an important role in the cultivation of the psychological stress management ability of medical personnel. Through the advantages of situational restoration and realism, experience sharing, and interactive communication, as well as improving learning motivation and participation, case teaching can stimulate the learning interest of medical staff and develop their practical ability and problem-solving abilities. By analyzing and discussing psychological stress problems and solutions in real cases, medical staff can more accurately understand and apply strategies for psychological stress management, enhance work effectiveness, and promote good relationships with patients. Overall, case teaching is a useful and effective teaching method to develop the psychological stress management ability of medical staff, and through continuous optimization and promotion, it is expected to bring positive impacts on the mental health and work performance of medical staff.

### Conflict of Interest

The authors declare that they have no conflicts of interest to this work.

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### References

- Wang, X., Wang, Z., & Jiang, Y. (2012). Analysis of psychological stress-related influencing factors of 498 medical personnel. *Chinese Journal of Social Medicine*, 29(06), 414–416.
- Cheng, T., Han, T., & Liu, B. (2023). Investigation and analysis of psychological stress after occupational exposure of medical workers and preventive measures. *Western Medicine*, 35(01), 107–110, 120.
- Huang, H., Qi, H., & Deng, C. (2018). Correlation between psychological stress response characteristics and rumination thinking after bloodborne occupational exposure in medical personnel. *Chinese Journal of Health Psychology*, 26(11), 1715–1718.
- Dai, P., Chen, B., & Li, Y. (2022). The dual mediating role of coping styles in medical staff's sense of psychological coherence and post-traumatic stress under public health emergencies. *Smart Health*, 08(32), 44–49.
- Zhang, J., Wang, C., & Mu, H. (2022). Research on psychological stress reaction and related factors of medical staff in closed-loop management of new crown epidemic. *Modern Hospital*, 22(09), 1359–1363, 1366.
- Zhang, H., Yang, Q., & Guo, J. (2020). A study on the current status of psychological stress after blood-borne occupational exposure among medical personnel specializing in infectious diseases in plateau areas. *Qinghai Medical Journal*, 50(01), 49–51.
- Jin, Z., An, H., & Yang, G. (2019). A study on the correlation between psychological resilience, positive and negative emotions, and psychological stress among medical personnel stationed in plateau training. *Northwest Journal of Defense Medicine*, 40(02), 93–97.
- Ma, Q., Chen, J., & Lu, Z. (2008). Effects of biofeedback training on landing exercise stress in medical personnel. *PLA Journal of Preventive Medicine*, 26(06), 436–427.

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