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Abstract

The prevalence of sleep problems continues to rise worldwide, with an increasing number of people experiencing sleep problems, including various types of sleep disorders. These problems not only severely affect patients' daytime functioning and quality of life, but are also closely associated with multiple chronic diseases such as cardiovascular disease and cognitive impairment. General practice, as primary care focused on the diagnosis, treatment, and health management of common, frequently occurring, and chronic diseases, and general practitioners, as the "gatekeepers" of primary healthcare services, play a critical role in the early screening, diagnosis, intervention, and prevention of sleep problems. By interpreting the Guidelines for Preventive Activities in General Practice (10th edition) issued by the Royal Australian College of General Practitioners (RACGP), this article takes a primary care practice-oriented perspective to explore in depth preventive activities for sleep disorders and related diseases. It focuses on analyzing the relationship between obstructive sleep apnea (OSA) and sleep disorders, as well as how general practitioners can identify sleep disorders and implement appropriate preventive strategies and measures. It clarifies the key components of prevention of sleep disorders in general practice and the application of cognitive behavioral therapy, which is of great significance for improving sleep health.

Full Text

• Guideline Interpretation •

Interpretation and Discussion of the RACGP *Guidelines for Preventive Activities in General Practice: Sleep Problems and Related Diseases*

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[Abstract] The prevalence of sleep problems continues to rise worldwide. An increasing number of people are experiencing sleep problems, encompassing various types of sleep disorders, which not only severely affect patients' daytime functioning and quality of life, but are also closely associated with multiple chronic diseases such as cardiovascular diseases and cognitive impairment. General practice, as primary care focused on the diagnosis, treatment, and health

management of common diseases, frequently occurring diseases, and chronic diseases, and general practitioners, as the “gatekeepers” of primary medical services, occupy a key position in the early screening, diagnosis, intervention, and prevention of sleep problems. By interpreting the *Guidelines for Preventive Activities in General Practice (10th Edition)* issued by the Royal Australian College of General Practitioners (RACGP), and with an orientation toward primary care practice, this article explores in depth preventive activities for sleep disorders and related diseases, with emphasis on analyzing the relationship between obstructive sleep apnea (OSA) and sleep disorders, as well as how general practitioners can identify and adopt appropriate prevention strategies and content. It clarifies the key links in general-practice-based prevention of sleep disorders and the application of cognitive behavioral therapy, which is of great significance for improving sleep health.

[Key words] Sleep disorders; Obstructive sleep apnea; Royal Australian College of General Practitioners; Preventive services; General practitioners; General practice

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[Abstract] The prevalence of sleep problems continues to rise worldwide, and more and more people have sleep problems, covering all types of sleep disorders, which not only seriously affect the daytime function and quality of life of patients, but also are closely related to a variety of chronic diseases such as cardiovascular disease and cognitive impairment. As a primary medical service focusing on the diagnosis, treatment and health management of common diseases, frequently-occurring diseases and chronic diseases, general practitioners, as the “gatekeeper” of primary medical services, occupy a key position in the early screening, diagnosis, intervention and prevention of sleep problems. Based on the interpretation of the “Guidelines for Preventive Activities in General Practice (10th Edition)” issued by the Royal Australian College of General Practitioners (RACGP), this paper explores the relationship between sleep disorders and related diseases, focusing on the relationship between obstructive

sleep apnea (OSA) and sleep disorders. It is of significance for general practitioners to identify the appropriate intervention strategies and contents, to clarify the key links of general intervention for sleep disorders, and to apply cognitive behavioral therapy to improve sleep health.

[Key words] Sleep disorders; Obstructive sleep apnea; Royal Australian College of General Practitioners; Preventive services; General practitioners; General practice

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With the accelerated pace of life and increasing life stress, as well as the influence of diseases, medications, environment, and other factors, people in all age groups experience sleep problems to varying degrees. The Chinese government has included sleep health as an important component and long-term objective of the “Healthy China Initiative (2019–2030).” Results of a nationwide sleep questionnaire survey conducted by the Chinese Sleep Research Society in 2003 showed that the prevalence of sleep problems in the population was 38.4%[1]. Foley et al.[2] found that the prevalence of sleep problems among older adults aged 60 years in the United States was 1/4–1/3; a meta-analysis by Liu et al.[3] showed that the prevalence of sleep disorders among Chinese older adults over 60 years of age was 47.2%. In the national key R&D program project “Active Health and Technological Responses to Aging,” sleep health is also an important component of active health. The *2022 White Paper on Sleep Health of Chinese Citizens*[4] noted that people at all age stages may have sleep problems, with a prevalence of 35.9% among older adults and 26% among adolescents. Thus, unhealthy sleep has become a common problem affecting a large population. Against the background of the development of general practice and primary care in China, general practitioners will encounter increasing numbers of patients with sleep disorders. As practitioners who emphasize prevention, are the first point of contact for residents, and are committed to continuous health management, general practitioners have opportunities—unavailable to specialists—to identify sleep problems and provide early prevention and comprehensive management.

The *Guidelines for Preventive Activities in General Practice (10th edition)* (hereafter referred to as the “Red Book”), issued by the Royal Australian College of General Practitioners (RACGP), has added content on sleep problems and covers obstructive sleep apnea (OSA) and insomnia. Specifically, it includes the epidemiological characteristics of sleep problems, risk factors, associations with chronic diseases, the role of general practitioners in the detection and management of sleep problems, and management strategies for insomnia in extremely high-risk groups. Key information recommended by the guideline—such as case finding and the priority of non-pharmaceutical approaches—provides a standardized management framework for primary care. Through studying and learning from the “Red Book,” general practitioners can clarify the key links in prevention and intervention for sleep problems and understand the necessity of cognitive behavioral therapy for insomnia (CBT-I). This is of great significance for improving the population’s level of sleep health. This article interprets and discusses the guidance on sleep problems in the “Red Book,” and, in light of the current situation in China, proposes policy recommendations and practical measures for further developing preventive activities for sleep problems in China’s primary care settings.

1 Relevant Sections of the “Red Book”

1.1 Screening for sleep disorders in the general population is not recommended

This recommendation is based on the research conclusions of the US Preventive Services Task Force (USPSTF)[5]. In the primary care setting, there is insufficient evidence regarding the potential benefits and harms of screening ordinary “normal” people for OSA, and there is also insufficient evidence to show that the benefits of general screening activities and early treatment activities exceed their harms. Therefore, screening for sleep disorders (including OSA) in the general population is not recommended.

1.2 Recommendations on case finding for sleep and related problems

It is recommended to screen for OSA among populations who have symptoms (such as daytime sleepiness, fatigue, snoring, and sleep interruption) and common risk factors (age >50 years, overweight or obesity, excessive alcohol consumption). Commercial drivers and flight crew members are key populations for case finding.

OSA is an independent risk factor for atrial fibrillation and is also a common comorbidity of atrial fibrillation[6]; moreover, the incidence of atrial fibrillation in OSA is as high as 88%[7]. Therefore, general practitioners are advised to pay attention to the association between the two conditions simultaneously and to carry out bidirectional association screening and management.

Questionnaires that can be used to identify OSA and symptoms of insomnia include: (1) OSA questionnaires, including the Epworth Sleepiness Scale, the

OAS50 questionnaire, and the STOP-Bang questionnaire. (2) Insomnia symptom questionnaires, including the Sleep Condition Indicator (SCI), the Insomnia Severity Index (ISI), the Dysfunctional Beliefs and Attitudes about Sleep (DBAS) scale, the Daytime Insomnia Symptom Scale (DISS), and the Flinders Fatigue Scale.

1.3 What preventive advice should general practitioners provide to patients?

Adequate, high-quality sleep is of vital importance to health and well-being. Sleep problems involve multiple factors, including psychological factors, environment, lifestyle, somatic diseases, and medications, and are also associated with increased risks of cardiovascular diseases such as type 2 diabetes and coronary heart disease, as well as anxiety, depression, and stroke[8-10].

General practitioners can provide advice to patients on the importance of maintaining good sleep. (1) Advice for parents regarding sleep problems in infants: maintain supine sleep, with the head uncovered; the crib surface should be flat, not sagging, and not inclined; infants should sleep in the parents' room for at least 6 months, close to the parents' bed; keep soft and loose items away from the infant's sleep area, and keep the sleep environment safe and clean. (2) Advice for sleep problems in children and adolescents: identify early any diseases related to sleep impairment; pay attention to mental health development; caregivers should establish consistent bedtimes, good sleep habits, and limits on the use of electronic products[11-12]. (3) Sleep advice for pregnant and postpartum women: from 28 weeks of gestation, maintain side sleeping to prevent stillbirth; if prolonged inability to fall asleep occurs during pregnancy or after delivery, consider the possibility of perinatal anxiety and seek help promptly.

Based on the patient's existing knowledge and understanding, introduce OSA and insomnia to the patient: (1) basic knowledge of OSA, including common symptoms, common risk factors (male sex, age >50 years, smoking, overweight or obesity, alcohol consumption, menopausal women, etc.), and the significant effects that may result if OSA is not treated. (2) Basic knowledge of insomnia, including what insomnia is, what acute and long-term insomnia are, and the main manifestations and risk factors of different types of insomnia.

For patients with severe acute or chronic sleep problems, after discussion with the patient, referral to psychological counseling services or to a sleep center may be considered.

2 Interpretation and Analysis of the “Red Book”

2.1 Australian and international background of the guideline recommendations

Australian researchers have found that approximately 48% of adults have sleep problems of varying degrees[13], including insufficient sleep, difficulty falling

asleep, and sleep interruption; these problems are often caused by the superimposition of multiple factors, such as physiological mechanisms[[unclear: text continues beyond the visible page]]

functional decline, psychological stress, and unhealthy lifestyle habits. Among them, the prevalence of insomnia reaches 15%-20%; that is, among patients attending general-practice outpatient clinics, 1-2 out of every 10 may be troubled by it. OSA is not only 4%-7% prevalent among middle-aged people; studies have further indicated that the actual prevalence of moderate OSA in the general Australian population is as high as 20%, and that there is a serious problem of missed diagnosis, with only a small number of patients receiving timely intervention. Australia is a country that implements a strict system of first contact with general practitioners. General practitioners are the medical professionals most likely to encounter sleep problems. Therefore, strengthening general practitioners' awareness, identification, and management of sleep problems—especially implementing appropriate prevention strategies and providing targeted preventive advice to residents and patients—is most consistent with the spirit of general practice, is the most cost-effective, and is of crucial importance for improving sleep health.

From an international perspective, the *2024 Global Sleep Report* clearly states that about 30% of adults worldwide have sleep disorders of varying degrees, including insomnia and OSA, and that the comorbidity rates with diseases such as diabetes, hypertension, and Alzheimer's disease have been rising year by year. Meanwhile, studies show that patients with insomnia have higher probabilities of developing various chronic diseases and higher 10-year mortality than the general population; OSA has also become an independent risk factor for multiple chronic diseases such as hypertension, diabetes, heart disease, and stroke ^[14–20]. Insufficient sleep in children, sleep rhythm disturbances in adolescents caused by mobile-phone use, and sleep disorders in older adults caused by changes in sleep structure have all become key concerns in the field of public health. Therefore, incorporating the identification and prevention of sleep problems into primary-care service guidelines will help control these risk factors and the burden of disease.

2.2 Evidence for Inclusion in the Guidelines

A large number of clinical studies have shown that, if sleep problems are not intervened in promptly, they significantly increase the risk of cardiovascular diseases (such as hypertension, coronary heart disease, and atrial fibrillation), metabolic diseases (such as diabetes), and psychiatric and psychological disorders (such as anxiety and depression) ^[14–20]; CBT-I is more effective for chronic insomnia disorders, has lasting efficacy, and is superior to short-term pharmacological treatment ^[21]. In addition, intervention studies in special populations—such as sleep guidance during pregnancy to reduce the risk of preterm birth, and education to improve children's regular sleep patterns and cognitive development—have also provided sufficient evidentiary support for the guide-

line recommendations [22–23]. Analysis of Australia’s national primary-care database in the RACGP guideline indicates that primary-care institutions that have implemented standardized sleep-health education and early intervention can reduce the need for specialist referral among patients with mild to moderate sleep disorders by 30%–40%, improve patients’ sleep quality by 58%, and reduce medical expenditure by 27% [24]. General practice embraces a holistic medical perspective and manages patients’ health problems comprehensively, integratively, and systematically. By virtue of their advantages in primary-level contact, general practitioners can provide patients with advice on maintaining healthy sleep, while also enabling early identification through opportunistic screening and standardized assessment tools (such as the STOP-Bang questionnaire for OSA and the Insomnia Severity Index scale for insomnia). Therefore, the RACGP guideline emphasizes the core role of general practitioners in the management of sleep problems: through opportunistic screening, stratified intervention and timely referral, as well as multidisciplinary collaboration, they can improve the management of insomnia and related diseases, provide follow-up health visits for patients, gradually improve the control rate of chronic disease management, and at the same time reduce individual health harm from sleep disorders and social medical costs. All of this fully demonstrates that primary-care institutions are the “first helper” for residents in preventing and managing sleep problems.

2.3 Meaning and Analysis of the Recommendations

Sleep problems are among the most common chief complaints in Australian general practice. Among them, poor sleep quality (insomnia) is the most common sleep problem, manifested as impairment of daytime, social, and occupational functioning, decreased quality of life, and significantly increased future risk of depression.

2.3.1 Insomnia

Insomnia can cause difficulty falling asleep or difficulty maintaining sleep, and it is further divided into acute insomnia and chronic insomnia. Acute insomnia is usually caused by psychological or physiological stress; once the stress is eliminated or the patient adapts to the stress, symptoms usually remit [13]. Chronic insomnia refers to insomnia occurring at least 3 nights per week and lasting for more than 3 months; despite adequate opportunities for sleep, it still causes marked distress or impairment of daytime function [13]. Sleep problems are caused by multiple predisposing, precipitating, and perpetuating factors and conditions, which may promote the development of insomnia. Insomnia can seriously affect a person’s quality of life and overall health. For general practitioners, the important task is to remove worry and reassure patients: in most cases, acute insomnia will not develop into chronic insomnia, and it is also necessary to manage the sources of stress that lead to difficulty sleeping.

It should be noted that special populations, such as menopausal and peri-

menopausal women, may experience insomnia [25]. In addition to factors that may increase the risk of insomnia, one report showed that the social factors with the highest prevalence of insomnia in the Australian population include low income, financial stress, unemployment, retirement, and inability to work because of disability [26].

Therefore, the “Red Book” recommends that assessment of sleep disorders be based on the patient-reported sleep history and questionnaires.

Guidelines from Australian and international general-practice, sleep, and medical societies strongly recommend CBT-I for insomnia as the first-line treatment [26–27]. This is because behavioral management targets the root causes of insomnia, improves the severity of insomnia and sleep parameters, and can bring sustained improvement in comorbid conditions such as depression and pain [28–29]. At the same time, it should be noted that insomnia symptoms due to external factors causing reduced sleep quality and/or sleep duration may not be suitable for CBT-I. For patients with suspected sleep disorders, general practitioners can assess the severity and chronicity of insomnia through brief standardized questionnaires or conversation with the patient, through the patient’s symptoms and clinical presentation; select targeted treatment according to past medical history and relevant comorbidities; initiate interventions for patients with mild to moderate insomnia; jointly formulate treatment plans with psychiatrists or sleep specialists for patients with severe insomnia or comorbid psychiatric and psychological problems; and, during the treatment stage, refer to a sleep specialist at any time according to the patient’s condition.

At the same time, the “Red Book” also supplements and introduces behavioral guidance for general practitioners regarding adult insomnia, including sleep-health education, methods for controlling stimuli, relaxation methods, and sleep-restriction therapy. It also provides corresponding management plans for infant sleep problems, their association with maternal mood, and interventional follow-up, as well as relevant guidance on long-term benzodiazepine use. Through these contents, it helps guide general practitioners to handle sleep-related problems more professionally in daily clinical practice.

2.3.2 OSA

OSA is one of the most common sleep disorders identified in the general population worldwide.

In addition, OSA and insomnia can coexist, and OSA is often overlooked and underdiagnosed. Symptoms of OSA may include: excessive daytime sleepiness, fatigue, or falling asleep during the day despite a relatively long sleep duration; snoring (which may be loud or irregular); choking or gasping during sleep; observed cessation of breathing; sleep disruption and frequent awakenings; nocturia; difficulties with attention, memory, and other executive functions; low

mood; and reduced work performance capacity

5, 13

Untreated OSA can have major consequences, including: cardiovascular morbidity and mortality (including hypertension, coronary heart disease, stroke, atrial fibrillation, and congestive heart failure); increased risk of motor-vehicle accidents; increased risk of occupational accidents; cognitive impairment; diabetes mellitus; loss of workdays/duration of unemployment; reduced quality of life; and mortality

9, 30

Some common risk factors for OSA include: male sex; age >50 years; modifiable risk factors such as smoking, overweight and obesity, and alcohol consumption; and postmenopausal women

8, 13

The initial assessment of symptomatic patients should include history taking, questionnaire survey, and physical examination. Conducting OSA case-finding activities among people whose occupation involves driving vehicles and among pilots may be more beneficial and meaningful

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, because this can prevent OSA from posing risks to the life and safety of others.

2.4 Expected outcomes of the “Red Book” recommendations for sleep problems

Through case finding for sleep problems and sleep-health advice for patients, general practitioners can be helped to achieve early identification of key and at-risk groups with suspected sleep problems and related diseases. For patients already affected by insomnia, targeted and effective cognitive behavioral therapy can be implemented; targeted professional guidance can be provided for patients with existing and potential sleep problems, thereby achieving “prevention first, early prevention and early treatment,” and improving the quality of life of patients and residents.

3 Discussion

3.1 Importance of the “Red Book” recommendations for sleep problems

Sleep is a basic and essential human need. Sleep problems are common problems affecting people of all ages, sexes, and socioeconomic backgrounds. In contemporary society, factors affecting sleep health and quality are increasing, and the incidence and prevalence of sleep disorders are also rising year by year; they have already become major public-health issues related to the health of the entire population and to socioeconomic development. Sleep disorders not only directly reduce quality of life and impair daytime functioning, but also significantly increase the risks of hypertension, coronary heart disease, atrial fibrillation, type 2 diabetes, cognitive impairment, anxiety, and depression, and are shared risk factors for multiple chronic diseases. As more and more patients tend to seek care at primary medical service institutions, the proportion of patients with definite or potential sleep disorders among the populations seen by general practitioners continues to rise, and the demand for sleep-health services has increased markedly. Treatment of sleep problems will also gradually shift from the previous specialist model for a minority of patients to routine health-management activities performed by general practitioners in community medical services. General practitioners need to strengthen their ability to identify high-risk groups for sleep disorders and their awareness of health management; discover hidden patients early through proactive case screening and other methods; provide precise health guidance in light of individual characteristics; adopt first-line non-pharmacological interventions for most patients with mild to moderate disease; carry out standardized pharmacological treatment for patients who meet indications for medication; and conduct sleep assessment and treatment for patients with severe OSA. However, at present, fewer than 20% of medical staff in primary medical institutions are able to identify sleep disorders, preventive and therapeutic measures are lacking, and referral mechanisms are incomplete.

With general practice as its core, the RACGP has established an implementable standardized framework around strategies such as opportunistic screening, stratified intervention, prioritization of non-pharmacological approaches, and collaboration between general practice and specialists. The guideline recommendations can provide China with a standardized management framework for sleep disorders at the primary-care level. By drawing on this system, China can achieve “prevention first, proactive detection, and timely intervention” for sleep disorders; reduce the incidence of chronic diseases such as cardiovascular, cerebrovascular, and metabolic diseases caused by long-term unaddressed sleep disorders; alleviate the disease burden caused by sleep-related conditions; improve general practitioners’ awareness and recognition of sleep disorders; standardize and strengthen the use of CBT-I at the primary-care level; reduce the irrational use of sedative-hypnotic drugs; establish a collaborative diagnosis-and-treatment

model between general practice and specialists; establish and improve two-way referral, information sharing, and joint diagnosis-and-treatment pathways between primary general practice and sleep specialties; optimize the allocation of diagnostic and treatment resources; shorten patient waiting times; and ultimately comprehensively improve patients' sleep quality and enhance their daily functioning and overall quality of life

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3.2 Relevant recommendations for prevention in general practice in China

At present, China has multiple specialty-specific guidelines and expert consensus on insomnia, sleep disorders, OSA, and other conditions

19, 32–37

, which provide professional evidence for diagnostic criteria, treatment principles, and referral procedures for sleep disorders and related diseases. However, China has not yet developed early preventive-activity guidelines for general practitioners like those of the RACGP. Existing relevant policies, guidelines, or consensus in China are mostly centered on specialist diagnosis and treatment, are formulated with the participation of specialist experts, and rarely involve general practitioners. These current documents seldom provide operational pathways from the perspectives of primary prevention, opportunistic screening, long-term follow-up, and health management, making them difficult to embed directly into the daily workflow of general practice. In China's general-practice training, training on sleep problems and disorders is clearly insufficient; in daily general-practice work, first-line non-pharmacological therapies such as CBT-I are used very rarely and have poor accessibility, and the vast majority of general practitioners still adopt symptomatic drug treatment. Compared with Australia's mature primary sleep-health resource system, China has not yet formed standardized training standards and syllabuses suitable for use in general practice, case-finding toolkits for general practitioners, standardized patient insomnia education and advice processes, unified non-pharmacological and pharmacological intervention processes, or clear referral criteria and follow-up pathways. The above structural issues (human-resource competence, policies, guidelines or consensus, etc.) and process issues (case finding, patient education, non-pharmacological strategies, referral pathways, etc.) have clearly constrained sleep-health services in China's primary medical care.

3.3 Implications of these recommendations for China

- (1) While considering the above-mentioned improvements to the structure and processes of sleep health in general practice, special attention should

be paid to the “resource shortcomings” in primary-level sleep-disorder management, including equipping medical staff in community health service centers with usable and effective basic sleep-assessment tools. In strengthening case finding, the relevant recommendations of the “Red Book” and the related questionnaires of Australia’s Sleep Primary Care Resources (<https://www.sleepprimarycareresources.org.au>) can be referenced to formulate screening forms, such as STOP-Bang, the Epworth Sleepiness Scale, and the ISI. Sleep-disorder screening should be incorporated into routine health examinations and chronic-disease follow-up for key populations such as older adults, pregnant and postpartum women, patients with hypertension, atrial fibrillation, or diabetes, and occupational drivers, so as to achieve opportunistic case finding; at the same time, avoid unnecessary

screen ordinary residents for sleep problems in an evidence-based manner.

- (2) The guideline to be developed needs to explicitly strengthen sleep-medicine training for healthcare personnel, with general practitioners as the main body. The sleep-health preventive service guidelines proposed in Australia’s “Red Book” are, in theory, not merely about “what should be done” ; more importantly, general practitioners must be “able to do it.” The key to achieving this lies in the formulation of general-practice guidelines led by general practitioners; the rationale is that those who formulate a guideline should not put forward requirements that they themselves cannot meet. Therefore, guideline recommendations and practical capacity should be mutually matched. Routine training should be conducted around the typical symptoms, risk factors, risk stratification, principles of prevention and treatment, and referral indications for sleep disorders and related diseases; the diagnosis and classification of sleep problems should be clarified; early disease recognition should be carried out; priority should be given to promoting the simplified application of CBT-I at the primary-care level; its status as a first-line treatment for chronic insomnia should be clarified; and targeted techniques such as sleep-health education, stimulus control, sleep restriction, and relaxation training should be mastered, so as to improve the accessibility of non-pharmacological treatment and reduce dependence on and abuse of sedative-hypnotic drugs.
- (3) Sleep-health guidelines can also put forward recommendations for improving the service system. For example, a collaborative mechanism among related departments such as “general practice-sleep specialty-psychology-otolaryngology” can be established. Through clear and mutually beneficial two-way referral, missed diagnosis or overtreatment of diseases such as severe obstructive sleep apnea, refractory insomnia, or insomnia related to psychological factors can be avoided. The service and payment system should support the provision of full-cycle prevention and medical services to patients, enabling patients to receive timely intervention at an early stage. On the one hand, this reduces the inconvenience and blindness

of seeking medical care; on the other hand, it can effectively reduce the abuse of sedative-hypnotic drugs, and helps primary-care physicians and specialists make more targeted recommendations on follow-up and formulate individualized diagnosis and treatment plans. Its ultimate purpose is to comprehensively improve the quality and efficiency of medical services.

- (4) The guideline to be developed may consider adopting appropriate traditional Chinese medicine technologies and, in combination with the cultural characteristics of different regions in China, formulate localized sleep-health education programs. It may integrate traditional Chinese medicine strategies, classify insomnia and sleep-disorder-related diseases according to syndrome differentiation and treatment, and provide patients with more individualized therapeutic options through non-pharmacological therapies such as traditional Chinese medicine, medicinal tea substitutes, acupuncture, electroacupuncture, point application, moxibustion, auricular points, and exercise-based therapies.
- (5) Guideline formulation requires evidence support. Such evidence includes empirical data on sleep problems among the Chinese population; the unique insights of Chinese experts; the perceptions and expressed needs of community residents regarding sleep problems; the knowledge and competence of primary community healthcare workers in China; and the different background conditions of Chinese populations and communities. Any recommendations and pilot attempts based on the Chinese context require scientific evaluation. Frankly, China currently still lacks the design and evaluation of preventive activities for sleep problems in general practice. To develop sleep-health preventive service guidelines applicable to general practitioners, practicing general practitioners and academic general practitioners should lead the development of the guidelines and collaborate with relevant specialists during the development process. In the future, more high-quality evidence needs to be obtained, such as epidemiological research data on sleep disorders at the community-population level, and there is a need to select or develop general-practice sleep-problem identification and management tools suitable for primary-care use.

4 Summary

Sleep problems have become a major public-health issue worldwide, seriously affecting patients' quality of life and closely associated with multiple chronic diseases. As providers and "gatekeepers" of primary medical care, general practitioners play a key role in the early case detection, diagnosis, prevention, and therapeutic intervention of sleep problems. The "Red Book" provides a standardized framework for the management of sleep problems in primary care, covers the core content of OSA and insomnia, emphasizes the priority of non-pharmacological interventions such as CBT-I, and highlights the importance of a general practice-specialty collaborative diagnosis-and-treatment model.

In China, the prevalence of sleep disorders remains high, but problems such as low detection rates at the primary-care level, weak awareness of prevention, insufficient understanding among medical staff and residents, and imperfect referral mechanisms are prominent. Drawing on the experience of the RACGP guideline, China needs to incorporate sleep health into general-practice training, consider it within the framework of overall health, strengthen the provision and use of primary-care sleep-assessment tools, improve the professional skills of general practitioners—especially mastery and application of CBT-I—establish a sound general practice-specialty collaboration mechanism, and formulate individualized intervention plans in light of local characteristics, so as to achieve early detection and early intervention for sleep disorders, reduce the risk of related chronic diseases, and improve the sleep-health level of the whole population. At the same time, it is necessary to strengthen the sleep-health literacy of residents and patients through patient education and other approaches, and to activate patients' motivation and actions to maintain sleep health.

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