

# Dynamics of Community Behavior Regarding the Use of Traditional Medicine in Treating Chronic Diseases: Ethnographic Study

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## ABSTRACT

The people of Merauke believe that traditional treatment for chronic diseases is safer because it is made from natural ingredients and has been used for generations. Determine knowledge, barrier and benefit factors, and the impact of the use of traditional medicine by the people of Merauke for the treatment of chronic diseases. This ethnographic study was conducted in Merauke in January – June 2024 with 5 users and 2 providers of traditional medicine. Data collection uses a holistic approach by combining observation and interview techniques. The data obtained will be analyzed through a reduction stage where significant information is identified systematically. Based on in-depth data analysis, this research found 4 themes that underlie the behavior of the people of Merauke in using traditional medicine to treat chronic diseases. Among them are predisposing factors, reinforcing factors, barrier factors, and impact factors. The use of traditional medicine in Merauke increases public satisfaction and trust in these treatment methods. Traditional medicine may not be effective for all types of chronic diseases, so people need to understand its limitations.

**Keywords:** chronic diseases, community behavior, traditional medicine

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## BACKGROUND

Chronic diseases are an increasingly troubling public health burden, especially in developing countries like Indonesia. In Merauke Regency, as one of the regions in Indonesia that is still rich in cultural diversity and local traditions, chronic disease has become a health challenge that requires serious treatment. In dealing with these diseases, people often rely on the use of traditional medicine as an alternative treatment (Kusumo, 2019). Traditional medicine refers to the use of natural ingredients such as plants, animals, minerals, or mixtures of these ingredients that have been passed down from generation to generation and are used in traditional healing practices (Han et al., 2022). The use of traditional medicine involves local knowledge and cultural traditions that have developed in society for centuries. These practices often utilize local wisdom to treat and cure various health conditions (Badan Pengawas Obat dan Makanan Republik Indonesia, 2008).

The World Health Organization estimates that 80% of people worldwide rely on traditional medicine for their treatment. Most of the medicines consumed by the public are in the form of herbal medicine (S. Cui et al., 2022). Traditional medicinal plants that are consumed and often used as concoctions are ginger, galangal and turmeric as the main ingredients for herbal medicine processing (Kusumo, 2019). The use of traditional medicine is directed as preventive, promotional, treatment and rehabilitation measures against certain diseases (J. Zhang & Jiang, 2023). Traditional healing practices have become an integral part of Indonesian culture, used for generations as a public health legacy. According to the Formulary of Indonesian traditional medicine ingredients published by the Ministry of Health of the Republic of Indonesia in 2017, traditional medicine includes various ingredients, such as plant ingredients, animal ingredients, mineral ingredients, sarian (galenic) preparations, or mixtures of these ingredients that have been passed down from time to time. -hereditary is used for medicinal purposes, and can be applied in accordance with the norms applicable in society (Menteri Kesehatan Republik Indonesia, 2017).

Based on the results of Basic Health Research (Riskesdas) from 2010 to 2018, there was a significant increase in the proportion of people using traditional health measures, reaching 44.3%. This fact reflects the increasing public interest in the use of traditional medicine and traditional health efforts. Apart from that, the Ministry of Health also encourages the public to use traditional medicine as a recommended alternative treatment (Kementrian Kesehatan Republik Indonesia, 2019). It is important to note that traditional health has now been recognized and regulated by the Ministry of Health of the Republic of Indonesia. The Ministry of Health (KEMENKES) has issued various policies and regulations that support the use of traditional medicine as part of the national health system. This includes the development of standards and guidelines for the practice of traditional medicine, registration and certification of practitioners, and monitoring the quality and safety of traditional medicine products (Guo et al., 2024). This official recognition not only increases accessibility and public trust in traditional medicine, but also provides a more structured and safer framework for its use in the management of chronic diseases (Luo et al., 2023). With the existence of regulations from the Ministry of Health, this research will examine the extent to which these policies influence people's behavior, as well as their impact on perceptions of the safety and effectiveness of traditional medicine (Yong et al., 2023).

The growth in the use of traditional medicine in society has raised interest in understanding the dynamics of their behavior towards the use of traditional medicine, especially in the context of managing chronic diseases (Hailong et al., 2024). Merauke Regency, with its rich and diverse cultural background, is a potential research location to gain an in-depth understanding of how society integrates traditional medicine in efforts to overcome chronic diseases. It is hoped that this ethnographic study in the sub-districts of

Merauke Regency will provide a comprehensive picture of the practice of using traditional medicine and the social dynamics within it. To understand the dynamics of community behavior towards the use of traditional medicine in treating chronic diseases, it is important to identify and analyze the factors that influence this behavior (Youn et al., 2023). These factors include socio-demographic aspects such as age, gender, education level, and economic status, as well as cultural factors such as the beliefs and values held by society (Y. Zhang et al., 2023). In addition, the accessibility and availability of traditional medicines, as well as perceptions of the effectiveness and safety of traditional medicines compared to modern medicine, also play an important role. By examining these fundamental issues, it is hoped that this research can provide a more comprehensive understanding of the motivations and barriers that people face in choosing traditional medicine, as well as offer useful insights for the development of health policies that are more responsive to people's needs and preferences (X. Y. Wang et al., 2024).

In Merauke, public perception of traditional medicine is generally positive, with many believing that traditional medicine is safer because it comes from natural ingredients and has been used for generations. This belief is strengthened by the positive experiences of family and community members who have successfully used traditional medicine to treat various chronic diseases. However, there are also concerns about the lack of regulation and quality standards that may affect the safety and effectiveness of these medicines (Xie et al., 2023). This perception suggests that while there is a strong belief in traditional medicine, there is still a need for better education and regulation to ensure its safe and effective use (Liyanage, 2022). Merauke Regency has a rich and diverse culture, from various tribes and ethnicities that live side by side. During this diversity, the practice of using traditional medicine reflects the preserved cultural heritage. In societies that are conservative towards tradition, the use of traditional medicine is often considered an inseparable part of the way of life and health efforts (R. Wang et al., 2022). Therefore, this research aims to detail and understand in more depth how this cultural diversity influences people's behavior regarding the use of traditional medicine to treat chronic diseases (Wu & Ai, 2024).

Chronic diseases such as diabetes, hypertension and heart disease are increasingly widespread in Merauke Regency. In situations where access to health services may be limited, communities often seek treatment alternatives that are more affordable and in line with local values. The use of traditional medicine, which is often passed down from generation to generation, is a reliable solution. However, over time, the relationship between society and traditional medicine is changing, and it is important to understand in depth how these dynamics influence people's treatment choices. This research aims to determine knowledge, barrier and benefit factors, and the impact of the use of traditional medicine by the people of Merauke for the treatment of chronic diseases. It is hoped that this research will provide a better understanding of the role of traditional medicine in managing chronic diseases in Merauke Regency. Thus, the results of this research can make a significant contribution to the development of more holistic and culture-based health strategies, strengthen community health services at the local level, and provide a foundation for more inclusive health policies in the future.

## METHODS

This research uses a qualitative approach with a focus on ethnographic methods. A qualitative approach was chosen because it allows an in-depth exploration of the perceptions, attitudes and practices of the Merauke community towards the use of traditional medicine in treating chronic diseases. The main reason for choosing a qualitative approach is the need to understand the cultural and social context thoroughly, which cannot be fully achieved through a quantitative approach. The ethnographic method was chosen because it allows

researchers to be directly involved in the daily lives of the community, understand cultural dynamics, and detail the practices and values involved in the use of traditional medicine. Thus, the qualitative ethnographic approach is expected to provide a rich and contextual picture of the experiences of the people of Merauke regarding the management of chronic diseases through the use of traditional medicine.

This research was conducted in Merauke in January June, the research location was chosen with careful consideration. The selection of Merauke as a research area was based on the diverse cultural richness and ethnic diversity of this area. In addition, Merauke also represents a significant health challenge, especially related to managing chronic diseases amidst limited access to health services. The decision to involve Merauke in this research was also influenced by the fact that people in this region often rely on traditional medicine for health care. Thus, Merauke provides a unique context for exploring how communities integrate traditional medicine in dealing with chronic disease. The main informants in this research came from the direct participation of 5 people using traditional medicine in Merauke, who provided in depth insight into their perceptions, experiences and practices regarding the use of traditional medicine in treating chronic diseases. In addition, 2 traditional medicine providers and traditional health workers were also used as data sources to understand their views regarding the effectiveness and safety of traditional medicines, as well as their role in society. Contributions from conventional health workers, such as doctors and nurses, will provide a different perspective and complete the understanding of the integration of traditional medicine in the context of modern health care.

Data analysis in this research will follow comprehensive steps, starting from data collection to establishing conclusions. The process begins with collecting data from various sources, including observation, interviews and documentation. Next, the data will undergo a reduction or condensation stage, where relevant and significant information will be identified and arranged systematically. Next is data display, which involves presenting presentations and visuals of the findings, such as in the form of presentations, graphs, tables, or diagrams, to clarify the patterns or findings that emerge. Finally, conclusions will be drawn based on in-depth data analysis, organizing the findings into a framework that is coherent and relevant to the research objectives. Using this method, this research aims to provide an in-depth understanding of the use of traditional medicine in treating chronic diseases in Merauke, and systematically explore its impact on the local community.

## RESULTS

### **Predisposing factors regarding the benefits and risks of traditional medicine**

In connection with the knowledge and perceptions of the people of Merauke regarding the effectiveness and safety of using traditional medicines in treating chronic diseases, researchers obtained the first data on public confidence in the effectiveness of traditional medicines in treating chronic diseases. "...Yes, I believe that the use of traditional medicine can be effective in treating chronic diseases based on the strong beliefs and cultural heritage received from the people of Merauke... (W: Masyarakat, 2024)." The next data that researchers explored was the extent of public knowledge about potential side effects or risks associated with the use of traditional medicines for chronic diseases. In this regard, researchers obtained the following data. "...I am aware that the use of traditional medicine has certain potential side effects or risks, especially if used inappropriately or in combination with modern medicine. However, this knowledge may vary depending on the individual's experience and the information available in society... (W: Masyarakat, 2024)."

Next is data mining related to the personal experiences of the people of Merauke in influencing their views on the effectiveness of traditional medicine for chronic diseases. In this regard, researchers obtained the following data. "...The personal experiences of the

people of Merauke, which often include success in using traditional medicine for certain illnesses, have influenced my view of the potential effectiveness of traditional medicine in the treatment of chronic diseases. I see it as an important part of their cultural identity and value system... (W: Masyarakat, 2024).” Data that is no less important to explore is the difference in perceptions between the younger generation and the older generation regarding the effectiveness of traditional medicine in treating chronic diseases. Regarding this matter, researchers obtained the following data. “...Yes, sometimes the younger generation tends to be more open to modern medicine, while the older generation may believe more in the effectiveness of traditional medicine due to experience and strong cultural heritage... (W: Masyarakat, 2024).”

Furthermore, the data explored is about how information from health workers influences people's perceptions of the safety of traditional medicines. In this regard, researchers obtained the following data. “...Information from health professionals can provide a more balanced view of the safety of traditional medicines, providing insight into their potential risks and benefits in the treatment of chronic diseases... (W: Masyarakat, 2024).” Apart from this data, researchers also explored data regarding whether local cultural factors such as myths or beliefs influence the perception of the effectiveness of traditional medicine. In this regard, researchers obtained the following data. “...Yes, local cultural factors such as myths or beliefs can influence the perception of the effectiveness of traditional medicine by creating strong beliefs or certain expectations regarding the results of treatment... (W: Masyarakat, 2024).”

When researchers dug deeper into the data, namely regarding the extent to which the results of scientific research influenced people's beliefs in traditional medicine, a source provided the following information. “...The results of scientific research can influence my confidence in traditional medicine by providing empirical evidence of its effectiveness and safety in the treatment of chronic diseases... (W: Masyarakat, 2024).” Next, the data that is the focus to be explored is how mass media and social networks influence people's perceptions of the effectiveness of traditional medicine. In this regard, researchers obtained the following research results. “...Mass media and social networks can influence my perception of the effectiveness of traditional medicine through widely disseminated information, both supporting and doubtful, which can influence general public opinion... (W: Masyarakat, 2024).”

After obtaining this data, the researchers explored the data further, namely whether positive experiences using traditional medicine in certain social circles influenced general perceptions. In this regard, researchers obtained the following data. “...Yes, positive experiences in certain social circles can influence the general perception of the effectiveness of traditional medicine due to testimonials and personal experiences that impact people's beliefs... (W: Masyarakat, 2024).” Finally, the research explores data on the extent to which formal education influences people's understanding of the effectiveness of traditional medicine. Regarding this matter, researchers obtained the following information. “...Formal education can help expand my understanding of the effectiveness of traditional medicine by providing more in-depth information about health science and research related to traditional medicine... (W: Masyarakat, 2024).”

The next data extracted by researchers is data related to cultural values that encourage the people of Merauke to choose traditional medicines in treating chronic diseases. To obtain this data, the researcher asked a source, and the following was the answer. “...Hereditary values are very strong in Merauke society, where the use of traditional medicine is an important part of Papuan cultural heritage and ethnic identity. Some areas in Merauke have limited access to modern health services, so people rely more on traditional medicines that are available locally and easily obtained. As we know, the people of Merauke have a strong

belief in the power of nature and medicinal plants as a natural way to cure chronic diseases. The use of traditional medicine can also be seen as a way to maintain social interactions within society and promote group welfare. The people of Merauke tend to believe in local knowledge which has been proven for generations in traditional medicine. Traditional medicine is often more affordable and available locally, making it a more economical option for people with lower income levels. The use of traditional medicine can also be a form of respect for ancestors and forefathers who have used similar methods to treat illnesses. People often feel they have greater control over their own treatment by using traditional medicine, allowing them to be actively involved in the healing process...s (W: Masyarakat, 2024).”

Next, the researchers asked whether social factors, such as family or community support, influenced people's decisions to use traditional medicine. In this regard, a source gave the following answer. “...When families support the use of traditional medicine, people tend to feel more confident and confident in taking this step in managing chronic diseases. If the use of traditional medicine becomes the norm in a community, individuals tend to follow this pattern of behavior to gain social support from the surrounding environment. The existence of a shared belief in the community regarding the effectiveness of traditional medicine can strengthen individuals' confidence in using it as an alternative treatment. Sharing knowledge and positive experiences about traditional medicine among family or community members can be an encouragement for individuals to try the treatment. Community support and involvement in traditional healing practices can build solidarity and a sense of ownership of these treatment methods. Family and community support can provide emotional needs such as attention and affection, which can increase the positive effects of using traditional medicine... (W: Masyarakat, 2024).”

Next, regarding social norms in Merauke society in influencing the choice of traditional therapy for chronic diseases, here are the results of the researchers. “..Social norms in Merauke society play an important role in influencing the choice of traditional therapies for chronic diseases. The collective belief in traditional medicine passed down through generations may make it the preferred choice for many individuals in a community, especially because these norms reflect strong cultural identity and social values... (W: Masyarakat, 2024).” Meanwhile, regarding the differences between the practice of using traditional medicine by urban and rural communities in Merauke, researchers obtained the following data. “...There are differences in the practice of using traditional medicine between urban and rural communities in Merauke. Rural communities tend to rely more on traditional medicine due to limited access to modern health services, while urban communities tend to have better access to modern medical facilities and may be more open to conventional treatment. Despite this, the use of traditional medicine remains an important part of cultural identity throughout the Merauke region... (W: Masyarakat, 2024).”

The data that was further explored was related to hereditary traditions and folklore influencing people's perceptions of traditional medicine as a treatment option. In this regard, researchers obtained the following data. “...Traditions passed down from generation to generation and folklore greatly influence people's perceptions of traditional medicine as a treatment option. The belief in the effectiveness and safety of traditional medicine that has been passed down from generation to generation strengthens the position of traditional medicine as the main choice in treatment... (W: Masyarakat, 2024).” Meanwhile, regarding religious factors influencing the decisions of the people of Merauke to use traditional medicine, researchers obtained the following data. “...Religious factors have a significant influence on the decision of the people of Merauke to use traditional medicine. The majority of Merauke's people are Christian, and the use of traditional medicine is often seen as being in line with their spiritual values and religious beliefs... (W: Masyarakat, 2024).” Henceforth, the data explored are differences in views between individuals who are more involved in

traditional activities and those who are not involved regarding the use of traditional medicine. Regarding this matter, researchers obtained the following data. "...There are differences in views between individuals who are more involved in traditional activities and those who are not involved regarding the use of traditional medicine. Communities that are more involved in traditional activities tend to maintain traditions of using traditional medicine with strong beliefs, while individuals who are less involved may be more open to modern and alternative medicine... (W: Masyarakat, 2024)."

In connection with social relationships between individuals influencing the dissemination of information regarding the use of traditional medicine, researchers obtained the following data. "...Social relationships between individuals play a key role in the dissemination of information regarding the use of traditional medicine. Through daily interactions, individuals can share experiences, testimonials, and knowledge about the effectiveness of traditional medicines, which influences perceptions and decisions to use these medicines... (W: Masyarakat, 2024)." The researchers' next data asked to what extent people's understanding of their cultural identity influenced their tendency to use traditional medicine. In this regard, researchers obtained the following data. "...People's understanding of their cultural identity greatly influences their tendency to use traditional medicine. Strong cultural identity and awareness of cultural heritage encourage the people of Merauke to maintain the use of traditional medicine as part of their identity... (W: Masyarakat, 2024)." Finally, researchers explored data on economic factors influencing people's preferences for the use of traditional medicine in treating chronic diseases. In this regard, researchers obtained the following data. "...Economic factors have a significant impact on people's preferences for the use of traditional medicine in treating chronic diseases. The availability of more affordable traditional medicine and the low cost of treatment makes it a more attractive option for individuals or families with limited economic conditions... (W: Masyarakat, 2024)."

### **Reinforcing factors in using traditional medicine to treat chronic diseases**

Supporting factors for the people of Merauke in using traditional medicine to treat chronic diseases based on observations and interviews conducted by researchers include the following things. First, traditional medicine is considered a cultural heritage and traditional value. Traditional medicine is an integral part of the cultural heritage and value system of the Merauke people. Beliefs and practices passed down from generation to generation provide a strong basis for people to continue using traditional medicine as a method of treatment. Second, there are positive experiences and personal success. Successful personal experience in using traditional medicine to treat chronic diseases strengthens people's belief in its effectiveness. The success an individual experiences often reinforces a positive view of this treatment. Third, there is recognition and support from health workers. Health workers who provide information and a balanced perspective on the use of traditional medicine can support public confidence in the safety and effectiveness of traditional medicine. This support helps people make more informed decisions.

Fourth, the development of myths and cultural beliefs. Myths and cultural beliefs that support the use of traditional medicine act as important supporting factors. This belief provides a sense of security and confidence in the effectiveness of traditional medicine. Fifth, there are differences in generations and cultural identities. Older generations, with a stronger cultural heritage, tend to believe more in the effectiveness of traditional medicine. This cultural identity strengthens the use of traditional medicine as the main treatment option. Sixth, the influence of mass media and social networks. Mass media and social networks that disseminate positive information about traditional medicines can support people's views on these treatments, influence opinions and increase people's confidence in their use. Lastly, the factor of education and formal knowledge. Formal education and broader knowledge about

the benefits of traditional medicine can strengthen people's trust in this treatment. Education helps people better understand the benefits and safety of traditional medicines.

### **Barriers faced by the people of Merauke in using traditional medicine.**

Researchers have obtained a lot of data relating to certain obstacles or challenges faced by the people of Merauke in accessing, understanding or integrating the use of traditional medicine in efforts to treat chronic diseases. The first data extracted was related to the obstacles faced by the people of Merauke in gaining access to traditional medicines for the treatment of chronic diseases. In this regard, researchers obtained the following information. "...Obstacles include limited availability of traditional medicinal materials, distance to locations where medicinal materials are collected, and lack of knowledge about the use of traditional medicines... (W: Masyarakat, 2024)." The second data that researchers explored was how the level of health literacy in Merauke influenced people's understanding of the use of traditional medicine. Researchers obtained the following research results "...Low levels of health literacy can hinder people's understanding of the benefits, risks and how to use traditional medicines effectively... (W: Masyarakat, 2024)."

Next, the researchers dug deeper into the data, namely whether health infrastructure and the availability of traditional medicines influenced people's decisions to integrate traditional medicines. Regarding this, a source provided information to researchers as follows. "...Yes, limited health infrastructure and limited availability of traditional medicines can influence people's decisions to rely on traditional medicines for treatment... (W: Masyarakat, 2024)." Data that is no less important to explore is the extent to which government regulations and policies influence people's perceptions and access to traditional medicines. In this case the researcher obtained the following information. "...Regulations and policies that support or limit the use of traditional medicines can influence the public's perception of and access to these medicines... (W: Masyarakat, 2024)." Apart from regulations, researchers also explored how economic factors influence the ability of the people of Merauke to access traditional medicine to treat chronic diseases. In this regard, researchers obtained the following research results. "...Economic factors such as the cost of traditional medicines and people's low incomes can limit their ability to access traditional medicines... (W: Masyarakat, 2024)." Next, the researcher explored data regarding whether there were differences in the accessibility of traditional medicine between urban and rural areas in Merauke, so after conducting interviews the researcher obtained the following data. "...Yes, usually the accessibility of traditional medicine is easier in rural areas due to the availability of raw materials and stronger traditions of using traditional medicine... (W: Masyarakat, 2024)."

The next data the researchers explored was how support from the conventional health system influenced the integration of traditional medicine in the management of chronic diseases. In this regard, researchers obtained the following information. "...Support from the conventional health system can strengthen the integration of traditional medicine by providing better information and supervision... (W: Masyarakat, 2024)." After obtaining the data, researchers conducted interviews again, asking to what extent conventional health practitioners' knowledge of traditional medicine influenced collaboration with the community. In this regard, researchers obtained the following information. "...Conventional health practitioners' knowledge of traditional medicine can strengthen collaboration with the community in developing holistic medicine... (W: Masyarakat, 2024)." The next data explored by researchers was about how changes in the lifestyle and diet of the people of Merauke influenced the tendency to use traditional medicine. The data that was obtained regarding this matter is as follows. "...Changes in lifestyle and diet can influence the tendency to use traditional medicine as a more natural treatment alternative... (W: Masyarakat, 2024)." Finally, the data explored by researchers is related to whether the

education level of the people of Merauke influences their understanding of the benefits of traditional medicine in treating chronic diseases. Researchers obtained information from sources regarding this matter, namely as follows. "...Yes, a higher level of education can increase people's understanding of the benefits of traditional medicine and how to use it... (W: Masyarakat, 2024)."

### **The impact of the use of traditional medicine by the people of Merauke for the treatment of chronic diseases**

The impact of the use of traditional medicine by the people of Merauke for the treatment of chronic diseases based on the results of observations and interviews includes several things as follows. First, holistic health improvement. The use of traditional medicine is often thought to improve overall health with a more holistic approach. The people of Merauke feel the benefits of treatment that is tailored to their body's natural needs. Second, increasing satisfaction and trust. People who experience success in using traditional medicine often feel more satisfied and trust this method. Positive experiences increase trust and support for traditional medicine.

Third, the risk of side effects and drug interactions. Although traditional medicines are often considered safe, use without adequate supervision can pose a risk of side effects or interactions with modern medicines. Lack of understanding of these potential risks can be dangerous. Fourth, limitations in treatment. Traditional medicine may not always be effective for all types of chronic diseases or medical conditions that require more specific and standardized treatments. This can cause limitations in the treatment of certain diseases. Fifth, changes in medical views and knowledge. The use of traditional medicine can influence people's views on modern medicine. While some communities prefer traditional medicine, others are experiencing changes in medical knowledge and openness to conventional medicine.

Sixth, conservation and cultural preservation. The use of traditional medicine helps preserve cultural knowledge and practices that have existed for a long time. This supports the conservation of traditional knowledge and strengthens the cultural identity of the Merauke people. Seventh, involvement in research and development. The use of traditional medicine can encourage further research and development to evaluate the effectiveness and safety of these medicines, as well as to bridge the gap between traditional and modern medicine. Lastly, dependence on natural resources. The use of traditional medicine often relies on natural resources that may be threatened or scarce. This can affect the sustainability of natural resources and their impact on the ecosystem.

## **DISCUSSION**

People's views and beliefs regarding the effectiveness and safety of using traditional medicines in treating chronic diseases are very important to understand. In Merauke society, as in many other traditional communities, traditional medicine is not only considered a medical alternative, but also an integral part of the cultural heritage and value system that has been passed on from generation to generation. In this discussion, we will explore the perceptions that underlie the use of traditional medicines, including beliefs about the effectiveness of these treatments in treating chronic diseases, as well as understanding their risks and safety. We will also explore the role of culture and personal experience to see how these factors shape society's view of the use of traditional medicine as a valuable therapeutic option. With a deeper understanding of these perceptions, we can appreciate the complexity and significance of traditional medicine in the context of Merauke society.

The people of Merauke have a strong belief in the effectiveness of traditional medicine in treating chronic diseases, which is based on cultural heritage and values received from previous generations. Data shows that the use of traditional medicine is considered

successful in some cases, with the success experienced by individuals personally reinforcing positive views of traditional medicine. This belief not only comes from practical experience but is also rooted in the cultural identity of the Merauke people. Although the people of Merauke believe in the effectiveness of traditional medicine, they are also aware of the potential risks or side effects associated with its use. Knowledge of these risks varies depending on individual experience and the level of information available in society (P. Huang et al., 2022). Information from health professionals helps provide a more balanced perspective on the safety of traditional medicines, enabling the public to make more informed decisions (Cai & Wang, 2022). Local cultural factors such as myths or beliefs also play an important role in shaping people's perceptions of the effectiveness of traditional medicine. Myths and beliefs influence expectations regarding treatment outcomes, creating a strong belief in the use of traditional medicine as an effective and safe treatment method (Dong & Lei, 2022). Successful personal experience in using traditional medicine also provides additional legitimacy to this positive view (Pradipta et al., 2023).

There are differences in perceptions between the younger and older generations regarding the effectiveness of traditional medicine. The younger generation tends to be more open to modern medicine, while the older generation believes more in the effectiveness of traditional medicine due to their life experiences and strong cultural heritage (Zhai, 2023). These differences reflect cultural dynamics and changing generational values. Information from health workers and the results of scientific research play an important role in shaping public perceptions of traditional medicine. Scientific data provides empirical evidence about the effectiveness and safety of traditional medicines, while information from health professionals helps provide a more complete understanding of the safety of traditional medicines in the treatment of chronic diseases (Peng et al., 2022). Mass media and social networks have a significant influence on people's perceptions of the effectiveness of traditional medicine. Information spread widely through social media can influence public opinion, both supporting and doubting the use of traditional medicine as an alternative treatment. Positive experiences in certain social circles and level of formal education also influence people's perceptions of traditional medicine. Successful personal experience in using traditional medicine can strengthen belief in its effectiveness, while formal education helps expand understanding of the benefits of traditional medicine in the treatment of chronic diseases (X. Wang et al., 2023).

The use of traditional medicine in Merauke society not only reflects medical aspects but is also the result of rich cultural values and deep social interactions. In this context, cultural values such as beliefs, hereditary traditions, and understanding of ancestral heritage greatly influence views and practices regarding the use of traditional medicine in treating chronic diseases (Y. Chen et al., 2024). Social interaction, both within the family and community, also plays an important role in preserving and developing the use of traditional medicine as a valued alternative treatment. Through this sub-chapter, we will explore how cultural values and social interactions are a strong basis for viewing traditional medicine as an integral part of the identity and value system of the Merauke people. With a deeper understanding of these factors, we can see the cultural complexities underlying traditional medicine use and their implications in the context of traditional health and care in these communities (H. Wang et al., 2024).

Based on the data that has been collected regarding cultural values and social interactions in the use of traditional medicine in the Merauke community, we can understand the complexity of factors that influence the views and practices of using traditional medicine as a treatment option for chronic diseases. First, the use of traditional medicine in Merauke is strongly influenced by strong cultural values passed down from generation to generation. Traditional medicine is seen as an inseparable part of the cultural heritage of the Papuan tribe

in Merauke. These values are closely related to belief in the power of nature and local wisdom in curing chronic diseases. Limited access to modern health services in some areas also encourages people to rely on traditional medicines that are available locally. More than just treatment, the use of traditional medicine is also considered a way to maintain social interactions and promote group well-being. The use of traditional medicine in Merauke is strongly influenced by strong hereditary cultural values passed down from generation to generation. For the people of Merauke, traditional medicine is not just treatment, but is also an inseparable part of the cultural heritage of the Papuan tribe. These values are reflected in the belief in the power of nature and local wisdom in curing chronic diseases. In several areas of Merauke, limited access to modern health services encourages people to rely on locally available traditional medicines as a more practical and affordable solution. In addition, the use of traditional medicine is also considered a way to maintain social interactions and strengthen group well-being, as these healing practices are often a central point in the daily life and cultural identity of the Papuan people in Merauke. Therefore, strong cultural values play a key role in influencing people's preferences in choosing traditional medicine as part of their efforts to care for their health and maintain their cultural heritage.

Second, social factors such as family and community support also play an important role in people's decisions to use traditional medicine. When families support the use of traditional medicine, individuals tend to feel more confident and confident in taking this step. Community support in traditional healing practices builds solidarity and a sense of ownership of the treatment method (R. Chen et al., 2024). In addition, social norms in Merauke society also play an important role in influencing the choice of traditional therapy. The collective belief in traditional medicine passed down through generations makes it the primary choice for many individuals in the community (Xu et al., 2024). Social factors such as family and community support have a significant influence on the decision of the people of Merauke to use traditional medicine as an alternative treatment. The support provided by the family in choosing traditional medicine increases the individual's confidence to take this step in managing chronic diseases. In addition, community support in traditional healing practices forms solidarity and a sense of ownership of these treatment methods among community members (Y. Cui et al., 2022). The social norms that have developed in Merauke society, which are based on collective beliefs and a hereditary inheritance of traditional medicine, make it the primary choice for many individuals in the community. This reflects the strong cultural identity, and social values maintained by the Papuan people in Merauke. Thus, these social factors play an important role in shaping people's preferences and views towards the use of traditional medicine as an integral part of their culture and daily life.

Third, there are significant differences in the practice of using traditional medicine between urban and rural communities in Merauke. Rural communities tend to rely more on traditional medicine due to limited access to modern health services, while urban communities tend to have better access to modern medical facilities and may be more open to conventional treatment (Ambarika et al., 2024). Despite this, the use of traditional medicine remains an important part of cultural identity throughout the Merauke region. The practice of using traditional medicine in Merauke shows significant differences between urban and rural communities. Rural communities tend to rely more on traditional medicine as a solution because they have limited access to modern health services that are generally available in urban areas (Ambarika et al., 2023). These limitations encourage them to utilize local knowledge and natural resources around them. On the other hand, urban communities tend to have better access to modern medical facilities and may be more open to conventional treatment supported by a more complete health infrastructure (Ellina et al., 2022). Despite this, the use of traditional medicine remains an important part of cultural identity throughout the Merauke region, demonstrating that traditional values are still upheld even in modern

urban environments. This reflects the diverse cultural richness and sustainability of the cultural heritage of the Papuan tribe in Merauke in the face of changing times and developing medical technology.

In addition, hereditary traditions and folklore also influence people's perception of traditional medicine as an effective and safe treatment option. The belief in the effectiveness of traditional medicine that has been passed down from generation to generation strengthens the position of traditional medicine as the main choice in treatment. Religious factors also have a significant influence in the decision of the people of Merauke to use traditional medicine, in line with their spiritual values and religious beliefs. Lastly, economic factors play an important role in people's preferences for the use of traditional medicine. The availability of more affordable traditional medicines and the low cost of treatment makes them a more attractive option for individuals or families with limited economic conditions. Overall, the use of traditional medicine in Merauke society is the result of a complex interaction between cultural values, social factors, social norms, hereditary traditions, religious beliefs, and economic factors (Gao, 2022). Understanding these factors can help in developing a holistic and sustainable approach to the use of traditional medicine in the context of community health care in Merauke.

Traditional medicine in Merauke is considered a cultural heritage that has high historical and social value. Beliefs and practices in using traditional medicine have been passed down from generation to generation, thus forming a strong foundation for people to continue to rely on this method of treatment. The use of traditional medicine is not only a matter of medical effectiveness, but also part of a respected cultural identity and heritage. Many individuals in Merauke have positive personal experiences with traditional medicine, especially in treating chronic diseases. The success they experienced strengthened the belief that traditional medicine was effective. These experiences are often shared within the community, thereby building a collective positive view of traditional medicine. Support from health workers who provide balanced information about the use of traditional medicine is also an important factor. When health workers acknowledge and support the use of traditional medicine, this provides validation and a sense of security for the community. This support helps people feel more informed and confident in making decisions about treatment. Myths and cultural beliefs that developed in Merauke play a significant role in supporting the use of traditional medicine. This belief provides an additional sense of security and confidence in the effectiveness of traditional medicine, although it is not always supported by scientific evidence (Deng et al., 2023). This myth often strengthens people's beliefs in relying on traditional medicine.

There are generational differences in views of traditional medicine, with the older generation tending to believe in its effectiveness more than the younger generation. The older generation who has strong ties to cultural heritage prefer traditional medicine as the main treatment method. This strong cultural identity strengthens the choice to continue using traditional medicine. Mass media and social networks have a significant influence in shaping public opinion about traditional medicine (Jin et al., 2022). Positive information disseminated through the media can increase public trust in traditional medicine. These media influences help reinforce positive views and support the use of traditional medicine (W. Y. Ye et al., 2023). Higher levels of formal education and knowledge about the benefits and risks of traditional medicine also strengthen public trust (Xia et al., 2023). Formal education helps individuals better understand the safety and effectiveness of traditional medicines, so they can make more informed and wise decisions about their use (J. Wang et al., 2024). Education also plays a role in expanding public knowledge about the potential benefits of traditional medicine (Ban et al., 2024).

The sub-chapter on "Barriers in Access and Integration of Traditional Medicine"

discusses the challenges faced by the people of Merauke in accessing and integrating the use of traditional medicine in treating chronic diseases. These challenges include aspects of physical accessibility, understanding, and policies that influence traditional healing choices and practices in the region. By understanding these obstacles, it can be understood how the people of Merauke face obstacles in maintaining and developing the use of traditional medicine as a relevant and sustainable treatment option in a modern health context. Based on the data obtained regarding the obstacles or challenges faced by the people of Merauke in accessing, understanding and integrating the use of traditional medicine in treating chronic diseases, it can be concluded that these factors play a crucial role in regulating the treatment choices of people in the region. First, obstacles such as limited availability of traditional medicinal ingredients, distance to locations where medicinal ingredients are collected, and lack of knowledge about the use of traditional medicines are the main factors influencing the accessibility of traditional medicines in Merauke. This shows the need for efforts to increase public knowledge about traditional medicine and support the development of infrastructure that facilitates access to these medicinal ingredients.

Furthermore, low levels of health literacy are also an obstacle in understanding the benefits, risks and how to use traditional medicines effectively. This underscores the importance of increasing health literacy among the people of Merauke so they can make better and informed treatment decisions. Furthermore, limited health infrastructure and insufficient availability of traditional medicines are also obstacles in the integration of traditional medicines in the management of chronic diseases. Efforts to improve health infrastructure and the availability of traditional medicine are expected to expand people's access to traditional medicine. Government regulations and policies also have a significant impact in influencing people's perceptions and access to traditional medicines. Policies that support or limit the use of traditional medicine can influence people's treatment choices. Therefore, a policy framework is needed that supports the development and integration of traditional medicine in the wider health system. Economic factors also have a strong impact on people's preferences for the use of traditional medicine in treating chronic diseases. The cost of traditional medicine and low income of the community can be serious obstacles in the accessibility of traditional medicine. In addition, differences in accessibility between urban and rural areas are also a concern, where accessibility of traditional medicine is easier in rural areas due to the availability of raw materials and stronger traditions of use.

Support from the conventional health system also plays an important role in the integration of traditional medicine in the management of chronic diseases. The support provided by the conventional health system can strengthen people's understanding of the use of traditional medicine and reduce the associated stigma. Conventional health practitioners' knowledge of traditional medicine can also strengthen collaboration with the community in developing holistic medicine. Collaboration between conventional health practitioners and traditional medicine can enrich the treatment options available to the community (Cao et al., 2023). Changes in the lifestyle and diet of the people of Merauke can also influence the tendency to use traditional medicine as a more natural alternative treatment. Formal education also has an important role in increasing public understanding of the benefits of traditional medicine in treating chronic diseases. A higher level of education can help people understand more deeply about traditional medicine (Li et al., 2024).

The use of traditional medicine in Merauke often provides overall health benefits with a more holistic approach. This approach not only focuses on healing specific diseases but also on the body's natural balance and harmony. People benefit from treatment tailored to their individual needs, which contributes to improved general health. Success in using traditional medicine often increases people's satisfaction and trust in this treatment method. Individual positive experiences strengthen belief and support for the effectiveness of traditional

medicine. This high level of satisfaction encourages people to continue to rely on traditional medicine as the main solution for treating chronic diseases. Although traditional medicines are often considered safe, their use without adequate medical supervision can pose a risk of side effects or interactions with modern medicines. Lack of understanding of these potential risks can be dangerous to public health. Therefore, it is important to increase awareness and understanding of the safe and appropriate use of traditional medicines. Traditional medicine may not always be effective for all types of chronic diseases or medical conditions that require more specific and standardized treatments. These limitations may reduce the effectiveness of treatment for certain diseases that require conventional medical intervention. People need to be aware of these limitations so that they do not completely depend on traditional medicine for all types of illnesses (L. Huang et al., 2022).

The use of traditional medicine can influence people's views on modern medicine. While some people continue to prefer traditional medicine, others are experiencing changes in medical knowledge and becoming more open to conventional medicine. This indicates a dynamic in the understanding and acceptance of different treatment methods. The use of traditional medicine helps preserve cultural knowledge and practices that have existed for a long time (Le et al., 2023). This supports the conservation of traditional knowledge and strengthens the cultural identity of the Merauke people. By preserving these practices, communities keep their cultural heritage alive and relevant. The use of traditional medicines encourages further research and development to evaluate the effectiveness and safety of these medicines. This research is important to bridge the gap between traditional and modern medicine, as well as to provide scientific evidence that supports the use of traditional medicine. The use of traditional medicine often relies on natural resources that may be threatened or scarce. This dependency can affect the sustainability of natural resources and its impact on the ecosystem (Y. Ye, 2023). It is important to consider the environmental impact of the use of traditional medicines and find ways to ensure the sustainability of the natural resources used. This discussion shows that the impact of the use of traditional medicine by the people of Merauke covers various aspects, both positive and negative. From improved health and satisfaction to risks of side effects and limitations in treatment, all of these factors need to be considered in understanding the role and relevance of traditional medicine in the context of chronic disease treatment in Merauke.

## CONCLUSION

The use of traditional medicine by the people of Merauke is influenced by various interacting factors, including knowledge about the benefits and risks, cultural values passed down from generation to generation, social support from family and community, differences in access between urban and rural communities, and economic factors. The people of Merauke have a strong belief in the effectiveness of traditional medicine, which is supported by personal experience, the influence of mass media, and information from health workers. These factors indicate that traditional medicine is not only seen as a medical alternative but also as an integral part of the cultural identity and value system of the Merauke people. Understanding this complexity is important to develop a holistic and sustainable approach to the use of traditional medicine for health care in Merauke.

Traditional medicine in Merauke is strongly supported by historical and social values as cultural heritage that has been passed down from generation to generation. Personal success in using traditional medicine for chronic diseases strengthens people's belief in its effectiveness. Support from health workers, myths and cultural beliefs, as well as the influence of mass media and social networks also play a significant role in strengthening the use of traditional medicine. In addition, the older generation believes in the effectiveness of traditional medicine more than the younger generation. Greater formal education regarding

the benefits and risks of traditional medicines also helps people make more informed and wise decisions. The people of Merauke face various obstacles in accessing and integrating traditional medicines for treating chronic diseases. The main obstacles include limited traditional medicine ingredients, distance to material collection locations, and lack of knowledge about the use of these medicines. Low levels of health literacy and limited health infrastructure also hinder the integration of traditional medicine. Unsupportive government regulations, economic factors, and differences in accessibility between urban and rural areas add to the complexity of this challenge.

The use of traditional medicine in Merauke provides holistic health benefits and improves body balance naturally, as well as increasing public satisfaction and trust in this treatment method. However, use without medical supervision can pose a risk of side effects and interactions with modern drugs. Traditional medicine may not be effective for all types of chronic diseases, so people need to understand its limitations. Additionally, the use of traditional medicine influences people's views of modern medicine, preserves cultural knowledge, and encourages further research. Dependence on natural resources for traditional medicine also needs to be considered so as not to threaten the sustainability of the ecosystem. The impact of using traditional medicine includes positive and negative aspects that must be considered in the context of chronic disease treatment in Merauke.

## REFERENCES

- Ambarika, R., Said, M. S. M., Adiutama, N. M., Anggraini, N. A., Poddar, S., & Abdullah, B. F. (2024). Knowledge and Awareness of Stroke in Rural and Urban Communities in Indonesia. *Enfermería Clínica (English Edition)*. <https://doi.org/10.1016/j.enfcl.2024.04.004>.
- Ambarika, R., Saifulaman, M., Umar, N. S., & Adiutama, N. M. (2023). Knowledge, Attitudes, and Practices Regarding Stroke in Multicultural Communities: Should the Indonesian Government Reconsider Stroke Awareness Campaigns? *Malaysian Journal of Medicine and Health Sciences*, 19(SUPP9), 166–176. <https://doi.org/10.47836/mjmhs.19.s9.25>.
- Badan Pengawas Obat dan Makanan Republik Indonesia. (2008). *Monografi Obat Tradisional*.
- Ban, J. F., Wang, H., Wang, Z. X., Zhou, Y. Bin, & Qie, R. (2024). Network Meta-analysis of traditional Chinese medicine injections in treatment of chronic pulmonary heart disease. *Zhongguo Zhongyao Zazhi*, 49(10), 2798–2817. <https://doi.org/10.19540/j.cnki.cjcmm.20240110.501>
- Cai, W. J., & Wang, J. W. (2022). Metabolic Mechanism and Traditional Chinese Medicine Treatment of Osteoporosis Secondary to Chronic Diseases. In *Chinese Journal of Pharmaceutical Biotechnology (Vol. 29, Issue 4, pp. 414–418)*. <https://doi.org/10.19526/j.cnki.1005-8915.20220417>.
- Cao, X., Wang, Y., Chen, Y., Zhao, M., Liang, L., Yang, M., Li, J., Peng, M., Li, W., Yue, Y., Zhang, H., Li, C., & Shu, Z. (2023). Advances in traditional Chinese medicine for the treatment of chronic obstructive pulmonary disease. In *Journal of Ethnopharmacology (Vol. 307)*. <https://doi.org/10.1016/j.jep.2023.116229>.
- Chen, R., Ni, K., Ji, C., Liu, Z., Yu, Y., Liu, G., Yang, J., & Wang, Z. (2024). Effects of co-application of tiotropium bromide and traditional Chinese medicine on patients with stable chronic obstructive pulmonary disease: a multicenter, randomized, controlled trial study. *Frontiers in Medicine*, 11. <https://doi.org/10.3389/fmed.2024.1289928>.
- Chen, Y., Qiu, Y., Zhou, K., Tan, R., Peng, W., Long, X., & Chen, M. (2024). The effect of traditional Chinese medicine rehabilitation exercise (pulmonary Daoyin) in patients with chronic obstructive pulmonary disease: A systematic review and meta analysis.

- Journal of Integrative Nursing, 6(1), 3–14. [https://doi.org/10.4103/jin.jin\\_153\\_23](https://doi.org/10.4103/jin.jin_153_23).
- Cui, S., Wang, J., Zhao, J., Liang, J., Liu, G., He, W., & Yan, W. (2022). Effect of horticultural therapy based on the five-color theory of traditional Chinese medicine on the rehabilitation effect of elderly patients with chronic obstructive pulmonary disease. *Chinese Journal of Rehabilitation Medicine*, 37(12), 1700–1702. <https://doi.org/10.3969/j.issn.1001-1242.2022.12.020>.
- Cui, Y., Peng, G., Hu, X., He, L., & Wu, Y. (2022). The core traditional Chinese medicines and mechanism of traditional Chinese medicine enema treatment of chronic kidney disease based on data mining and network pharmacology. *Journal of Xi'an Jiaotong University (Medical Sciences)*, 43(2), 286–296. <https://doi.org/10.7652/jdyxb202202021>.
- Deng, Y., Zhang, L., Chen, S., Xu, D., Wu, W., Shen, T., Liu, Z., Yang, L., Wen, A., Hou, Y., & Shao, F. (2023). Exploring the clinical efficacy and mechanism of high-position colon dialysis combined with Traditional Chinese Medicine retention enema in real-world patients with stage 3–5 chronic kidney disease (non-dialysis) based on the theory of the Gut–Kidney axis. *Frontiers in Pharmacology*, 14. <https://doi.org/10.3389/fphar.2023.1246852>.
- Dong, F., & Lei, C. (2022). Intervention effects of health education and nursing based on the traditional Chinese medicine theory of treatment of winter diseases in summer on chronic obstructive pulmonary disease with lung and kidney Qi deficiency and damp-cold characteristics. *Chinese Journal of Primary Medicine and Pharmacy*, 29(3), 465–469. <https://doi.org/10.3760/cma.j.issn.1008-6706.2022.03.032>.
- Ellina, A. D., Nursalam, Yunitasari, E., Putra, M. M., & Adiutama, N. M. (2022). Culturally based caring model in nursing services. *Kontak*, 24(3), 212–218. <https://doi.org/10.32725/kont.2022.027>.
- Gao, X. (2022). The understanding of chronic rhinitis in traditional Chinese medicine and the definition of nasal obstruction disease. *Chinese Journal of Medical History / Zhong Hua Yi Shi Za Zhi*, 52(3), 157–167. <https://doi.org/10.3760/cma.j.cn112155-20220121-00011>.
- Guo, X., Wang, J., Duan, X., Peng, Y., Zhao, T., Zheng, Y., & Zhao, B. (2024). Metal ion metabolism: New ideas for the traditional Chinese medicine prevention and treatment of chronic liver disease. In *Journal of Clinical Hepatology* (Vol. 40, Issue 7, pp. 1498–1504). <https://doi.org/10.12449/JCH240732>.
- Hailong, Z., Yimei, S., Yan, D., Xinguang, L., & Jiansheng, L. (2024). Exploration of biomarkers for efficacy evaluation of traditional Chinese medicine syndromes of acute exacerbation of chronic obstructive pulmonary disease based on metabolomics. *Frontiers in Pharmacology*, 15. <https://doi.org/10.3389/fphar.2024.1302950>.
- Han, M., Shao, P. L., Liu, X. F., Dong, H. R., Zheng, W. C., & Zhao, J. (2022). Research Progress on Mechanism of Active Components of Traditional Chinese Medicine in Therapy of Chronic Obstructive Pulmonary Disease. *Chinese Journal of Experimental Traditional Medical Formulae*, 29(9), 221–232. <https://doi.org/10.13422/j.cnki.syfjx.20220941>.
- Huang, L., Luo, X., & Chen, M. (2022). Effects and safety of traditional Chinese medicine on the gut microbiota of an adult with chronic kidney disease: A protocol for systematic review and meta-analysis. In *Medicine (United States)* (Vol. 101, Issue 7, p. E28847). <https://doi.org/10.1097/MD.00000000000028847>.
- Huang, P., Lin, X., Liu, Y., & Hou, Z. (2022). The efficacy and safety of combined traditional Chinese and western medicine in the treatment of chronic obstructive pulmonary disease complicated with respiratory failure: a systematic review and meta-analysis study. *Annals of Palliative Medicine*, 11(3), 1102–1111.

- <https://doi.org/10.21037/apm-22-272>.
- Jin, L. X., Zhang, X. D., Pan, C., Zhao, W. Z., Luan, Z. Q., & Sui, Y. B. (2022). Research progress on regulation of mitophagy by traditional Chinese medicine in prevention and treatment of chronic kidney diseases. In *Zhongguo Zhongyao Zazhi* (Vol. 47, Issue 13, pp. 3432–3438). <https://doi.org/10.19540/j.cnki.cjcmm.20220425.501>.
- Kementrian Kesehatan Republik Indonesia. (2019). *Kemenkes Dorong Pengembangan Industri Obat Tradisional*.
- Kusumo, A. R. (2019). Jamu Tradisional Indonesia : Tingkatkan Imunitas Tubuh Secara Alami Selama Pandemi. *Journal of Chemical Information and Modeling*, 9(53), 1689–1699.
- Le, T. T., Tang, H. K., Le, L. T. H., Lam, T. C., & Le, L. B. (2023). Association of traditional medicine body constitution types with five chronic diseases in Ho Chi Minh city. *Clinical Epidemiology and Global Health*, 22. <https://doi.org/10.1016/j.cegh.2023.101340>.
- Li, S., Duan, S., Dong, Z., Qu, Y., Luo, Y., Ke, J., Wang, C., Peng, Y., Zhou, X., & Chen, X. (2024). Distribution of Traditional Chinese Medicine syndromes in diabetic kidney disease chronic kidney disease 1-5: a correlation study. *Journal of Traditional Chinese Medicine*, 44(3), 572–580. <https://doi.org/10.19852/j.cnki.jtcm.20230802.007>.
- Liyanage, C. (2022). Chronic Kidney Disease of Uncertain Etiology in Sri Lanka: Curing between Medicine and Traditional Culture. *Social Sciences*, 11(1). <https://doi.org/10.3390/socsci11010020>.
- Luo, X., Xie, J., Huang, L., Gan, W., & Chen, M. (2023). Efficacy and safety of activating blood circulation and removing blood stasis of Traditional Chinese Medicine for managing renal fibrosis in patients with chronic kidney disease: a systematic review and Meta-analysis. *Journal of Traditional Chinese Medicine*, 43(3), 429–440. <https://doi.org/10.19852/j.cnki.jtcm.20230308.003>.
- Menteri Kesehatan Republik Indonesia. (2017). *Keputusan Menteri Kesehatan Republik Indonesia Nomor Hk.01.07/Menkes/187/2017 Tentang Formularium Ramuan Obat Tradisional Indonesia Dengan Formularium Ramuan Obat Tradisional Indonesia*.
- Peng, S., Zhao, M., Xu, G., Zhang, Y., Wang, L., Pei, K., & Hong, M. (2022). Syndrome and Treatment Rules of Traditional Chinese Medicine in Treating Chronic Obstructive Pulmonary Disease Based on Modern Medical Cases. *Chinese Journal of Experimental Traditional Medical Formulae*, 28(15), 173–182. <https://doi.org/10.13422/j.cnki.syfjx.20220914>.
- Pradipta, I. S., Aprilio, K., Febriyanti, R. M., Ningsih, Y. F., Pratama, M. A. A., Indradi, R. B., Gatera, V. A., Alfian, S. D., Iskandarsyah, A., & Abdulah, R. (2023). Traditional medicine users in a treated chronic disease population: a cross-sectional study in Indonesia. *BMC Complementary Medicine and Therapies*, 23(1). <https://doi.org/10.1186/s12906-023-03947-4>.
- Wang, H., Luan, Z., & Feng, J. (2024). Connotation of Traditional Chinese Medicine in Treatment of Chronic Obstructive Pulmonary Disease by Regulating Gut Microbiota Based on “Lung and Large Intestine Being Interior-exterior Related.” *Chinese Journal of Experimental Traditional Medical Formulae*, 30(3), 169–177. <https://doi.org/10.13422/j.cnki.syfjx.20231417>.
- Wang, J., Wang, H., Song, S., Ji, G., Guo, Y., Yao, D., Zhao, S., Li, D., Xia, R., & Zhang, L. (2024). Literature Characteristics and Outcome Measures of Randomized Controlled Trials of Oral Traditional Chinese Medicine in Treatment of Acute Exacerbation of Chronic Obstructive Pulmonary Disease. *Chinese General Practice*, 27(2), 226–232. <https://doi.org/10.12114/j.issn.1007-9572.2023.0133>.
- Wang, R., Li, J., & Wang, Y. (2022). Research on the medication regularity of traditional

- Chinese medicine for common chronic diseases based on association rules. In ACM International Conference Proceeding Series. <https://doi.org/10.1145/3579654.3579664>.
- Wang, X., Chen, J., Feng, M., Zhuang, M., Wang, J., Zhang, L., Liu, Y., & Chen, H. (2023). Demand and influencing factors of “Internet + Traditional Chinese Medicine” home nursing service for older adult patients with chronic diseases: a mixed research perspective. *Frontiers in Public Health*, 11. <https://doi.org/10.3389/fpubh.2023.1271082>.
- Wang, X. Y., Zhao, S. H., Wang, A. N., & Zou, D. (2024). Meta-analysis of traditional Chinese medicine on chronic kidney disease. In *Expert Review of Pharmacoeconomics and Outcomes Research* (Vol. 24, Issue 3, pp. 353–359). <https://doi.org/10.1080/14737167.2024.2306805>.
- Wu, Q., & Ai, K. (2024). Clinical Study on the Combination of Digital Respiratory Training System and Traditional Chinese Medicine Five Elements Music for Respiratory Difficulty in Patients with Chronic Obstructive Pulmonary Disease. *Applied Mathematics and Nonlinear Sciences*, 9(1). <https://doi.org/10.2478/amns-2024-1227>.
- Xia, Y., Wang, T., Ma, Z., Ying, R., Shao, S., Zeng, J., & Zhang, C. (2023). Auricular Acupuncture as a Traditional Chinese Medicine Therapy for Chronic Obstructive Pulmonary Disease Combined with Sleep Disorders. *Journal of Visualized Experiments*, 2023(198). <https://doi.org/10.3791/65297>.
- Xie, J., He, J., Xia, P., He, W., Huang, M., Fang, P., Hu, C., & Hu, K. (2023). Knowledge Graph Construction of Chronic Kidney Disease Diagnosis and Treatment with Traditional Chinese Medicine. *Evidence-Based Complementary and Alternative Medicine*, 2023. <https://doi.org/10.1155/2023/3169031>.
- Xu, F., Zhang, H., Chen, J., Zhan, J., Liu, P., Liu, W., Qi, S., & Mu, Y. (2024). Recent progress on the application of compound formulas of traditional Chinese medicine in clinical trials and basic research in vivo for chronic liver disease. In *Journal of Ethnopharmacology* (Vol. 321). <https://doi.org/10.1016/j.jep.2023.117514>.
- Ye, W. Y., Zhao, H., Ye, J., Sang, H. J., Zhou, L. S., Lv, J. N., & Li, J. J. (2023). Effects of Ipratropium Bromide Combined with Traditional Chinese Medicine Intervention on the Pulmonary Function and Psychological Status of Patients with Chronic Obstructive Pulmonary Disease. *Evidence-Based Complementary and Alternative Medicine*, 2023. <https://doi.org/10.1155/2023/6483785>.
- Ye, Y. (2023). An integrated traditional Chinese and Western Medicine study on the comprehensive prevention and treatment of chronic hepatitis B and its related diseases. In *Journal of Clinical Hepatology* (Vol. 39, Issue 6, pp. 1257–1266). <https://doi.org/10.3969/j.issn.1001-5256.2023.06.001>.
- Yong, C., Huang, G. S., Ge, H. W., Sun, Q. M., Gao, K., & Zhou, E. C. (2023). Effect of traditional Chinese medicine in attenuating chronic kidney disease and its complications by regulating gut microbiota-derived metabolite trimethylamine N-oxide: a review. In *Zhongguo Zhongyao Zazhi* (Vol. 48, Issue 2, pp. 321–328). <https://doi.org/10.19540/j.cnki.cjcmm.20220726.501>.
- Youn, I., Leem, J., Cheong, M. J., Jang, K. J., Kim, D. Y., Lee, B. J., Kim, K. Il, & Jung, H. J. (2023). Experience of traditional East Asian medicine treatment in patients with chronic obstructive pulmonary disease: A qualitative study protocol. *European Journal of Integrative Medicine*, 60. <https://doi.org/10.1016/j.eujim.2023.102248>.
- Zhai, J. (2023). A patient-centered methodological framework for selecting and evaluating traditional Chinese medicine for preventing and treating chronic diseases. *Chinese Journal of Evidence-Based Medicine*, 23(4), 439–443. <https://doi.org/10.7507/1672-2531.202212047>.

- Zhang, J., & Jiang, B. (2023). Effect of traditional Chinese and western medicine combined with lung rehabilitation training on pulmonary function in patients with chronic obstructive pulmonary disease complicated with chronic cor pulmonale and evaluation of efficiency. *Bratislava Medical Journal*, 124(3), 221–227. [https://doi.org/10.4149/BLL\\_2023\\_035](https://doi.org/10.4149/BLL_2023_035).
- Zhang, Y., Zhao, L., Yue, Q., Su, L., Li, K., Zhao, C., Li, B., & Zhang, S. (2023). Using Traditional Chinese Medicine to Alleviate Chronic Obstructive Pulmonary Disease. In *Studies in health technology and informatics* (Vol. 308, pp. 696–704). <https://doi.org/10.3233/SHTI230902>.