


Cognitive approaches and cultural differences in medical diagnostics

 Shokirova Maxbuba Nazirg'ulomovna
f.f.f.d., dotsent, Central Asian Medical University, Uzbekistan

Received: 03 January 2025; **Accepted:** 05 February 2025; **Published:** 07 March 2025

Abstract: This article is important for establishing effective communication in medical diagnostics, ensuring the accurate and proper execution of the diagnostic process, and considering cultural differences, which ultimately contributes to improving the quality of medical services. A deep analysis and study of cognitive processes and cultural differences in this field help enhance global approaches and mutual understanding in medical practice. Cognitive processes, in particular, are a key factor in understanding medical terminology and in doctors' decision-making during diagnostic procedures.

Keywords: Diagnostics, cultural differences, cognitive processes, medical terminology, terms.

Introduction: Cognitive approaches and cross-cultural differences in medical diagnostics are crucial in establishing clear and accurate communication in the medical field. International medical terms are based on common standards in medicine, and they should have the same meaning and form across all languages. For example, the term "cancer" is globally recognized, but its classification and diagnostic methods may differ depending on culture. Cross-cultural differences play a significant role in medicine because the meaning and understanding of terms can vary in different languages and cultures.

History and Cultural Reflection of Medical Terms

Medical diagnostic terms reflect historical processes and the approach of cultures to medicine. Some concepts and terms develop in one culture and may exist in different forms in others. For example, in Islamic culture, the issue of "mental health" is viewed from a religious perspective, which links mental and physical health closely. Therefore, semantic differences may arise when translating medical terms from religious cultures to others.

International Medical Terms

Since there are international standards in medicine, some terms can be universally recognized. For example, the term "cancer" should have the same

meaning and form in every language, but its classification and diagnostic methods may be understood differently depending on the culture.

The History and Cultural Reflection of Medical Concepts

Medical diagnostic terms reflect historical processes and the cultural approach to medicine. Some terms and concepts develop in one language and may exist differently in other cultures and languages.

Religious Influence

In some cultures, religious views influence medical diagnostics. For example, in the Islamic world, the issue of "mental health" is often seen from a religious standpoint, connecting mental and physical health. Therefore, semantic and cultural differences may arise when translating medical terms from religious cultures to others.

The Role of Terminology in Medical Diagnostics

Medical terminology plays a crucial role in establishing clear communication, diagnosing diseases, determining treatment methods, and conducting scientific research. Terms used in medical diagnostics are words, expressions, and phrases that express medical knowledge. Their correct and accurate use helps establish effective communication among doctors,

researchers, students, patients, and the general public. Below, the importance and role of medical terminology in diagnostics are discussed in detail.

Through medical terms, doctors identify diseases, pathologies, and the overall condition of a patient. For example, the term "diabetes mellitus" clearly and understandably represents a disease, otherwise, the diagnosis might be unclear. Cognitive processes play a significant role in this process, as doctors must understand the patient's symptoms and overall condition to make the correct decisions in diagnosis and treatment planning.

Presentation of Accurate Information

Medical terminology provides an accurate representation of the patient's condition, the type of disease, and its progression. For instance, the term "diabetes mellitus" clearly represents a disease related to high blood sugar. Without such terms, the diagnosis may remain unclear.

The Role of General and Specific Terms in Medical Diagnostics

Medical terminology in diagnostics is divided into two main categories: general medical terms and specific medical terms. Each serves its distinct purpose.

General Medical Terms: These are commonly used and easily understood terms in medical diagnostics and treatment processes. For example, terms like "fever," "pain," and "infection" are used in general diagnostics and refer to widespread conditions.

Specific Medical Terms: These terms are often related to a particular field, disease, or pathology. For instance, terms like "myocardial infarction" or "endometriosis" are understood by doctors and specialists and refer to specific diseases.

Importance of Medical Terminology in Diagnostic Processes

The significance of medical terms in diagnostics can be seen in several aspects:

- **Precision in Identifying Diseases:** Medical terms provide precise and comprehensive descriptions of diseases. This helps select the appropriate treatment and assess the patient's condition. For example, the term "asthma" requires a specific diagnostic approach, while "bronchitis" requires different treatment.
- **Direct Communication:** The correct use of medical terminology ensures effective communication among doctors. Moreover, medical terms should also be understandable to patients and their relatives.
- **Disease Management and Monitoring:** The terms used in diagnostics help in disease management, prevention, and continuous monitoring. For example,

terms like "chronic" and "acute" describe the duration and characteristics of diseases.

Connection Between Cognitive Processes and Medical Diagnostics

Cognitive processes are essential for doctors to understand a patient's condition and make accurate diagnoses. Doctors analyze the patient's symptoms and laboratory results and make decisions based on cognitive processes. This process involves not only remembering information but also analyzing, interpreting, and planning the treatment process.

Cognitive processes also facilitate communication between patients and doctors. Patients must correctly understand and express their symptoms because this is done through cognitive processes. Cognitive processes help doctors understand the patient's mental state and define the treatment approach.

Accuracy of Diseases: In medical diagnostics, words, terms, and concepts are interconnected and used to classify diseases. For example, the term "stroke" refers to damage to the central nervous system and can be divided into subtypes like "ischemic stroke" and "hemorrhagic stroke" to eliminate ambiguity.

Information Reception: The doctor receives the information about the patient's condition and analyzes it. This process is the initial stage of cognitive processes. Symptoms, laboratory results, and other diagnostic indicators are interpreted through cognitive processes.

Understanding and Interpretation: In medical diagnostics, the doctor must understand the patient's symptoms. Cognitive processes aid in this as they help in understanding the connections between symptoms. For instance, symptoms like headache, shortness of breath, and high fever, when considered together, could resemble the signs of flu or another infection.

Memory and Decision-Making: Doctors apply their past experiences to new situations through memory. Cognitive processes allow doctors to make decisions based on their past experiences. For example, recalling methods previously used to treat the flu helps the doctor create an appropriate treatment plan for the patient.

Functions of Medical Terminology in Diagnostics

Medical terminology serves not only as words but also as tools that facilitate and clarify the diagnostic process. Some of their main functions are as follows:

Diagnosis: Medical terms provide complete and accurate information about diseases, pathologies, and conditions. Doctors can identify the patient's symptoms, history, and test results using medical terms. For instance, terms like "hypertension" or "pneumonia" precisely describe the disease.

Determining the Treatment Process: Medical terms are used to determine various methods of treatment, approaches, and medications. For example, terms like "chemotherapy" or "radiotherapy" indicate the specific type of treatment prescribed for a patient.

Scientific Research and Knowledge Sharing: Medical terms are used in scientific research and facilitate communication among different countries in the medical and scientific community. Scientific papers, technical documents, and others ensure mutual understanding between authors using medical terms. International conferences and research in medicine are also based on clear medical terminology.

Cognitive Processes in Medical Diagnostics

Cognitive processes are related to the human cognitive activity, where people perceive, process, memorize, understand, make decisions, imagine, and engage in other thinking processes. In medical diagnostics, cognitive processes play a critical role in evaluating the patient's condition, correctly understanding their symptoms, diagnosing, and developing treatment plans. Doctors rely on cognitive processes to understand the patient's condition, symptoms, and overall health.

Cognitive Processes and Communication Between Patients and Doctors

Cognitive processes play an essential role in communication between patients and doctors. Understanding the patient's symptoms, making a diagnosis, and applying treatment requires cognitive processes:

- **Understanding the Symptoms of the Patient:** Patients must accurately describe and convey their symptoms to the doctor. This happens through cognitive processes as patients shape their understanding of their condition. Their thoughts, emotions, and symptoms affect the doctor's diagnosis.
- **Empathy and Decision-Making:** Cognitive processes help doctors show empathy and understand the patient's mental state. Doctors use cognitive processes to understand the patient's condition, concerns, and approach to treatment.

Cognitive Processes and Medical Terminology

Cognitive processes are also significant in correctly interpreting medical terminology and concepts. In medical diagnostics, the use of accurate and precise medical terms is necessary to ensure effective communication between doctors and patients. Cognitive processes help in understanding and applying these terms.

Remembering Terms: Doctors frequently use various medical terms in their practice. Remembering and

adapting these terms to clinical situations is an essential part of cognitive processes. For example, terms like "pulmonary embolism" are interpreted through the doctor's past experience and cognitive processes.

Processing Medical Information: Medical terminology is based on cognitive processes when doctors recognize the patient's condition, analyze diseases, and plan treatment. For example, terms like "acute" and "chronic" describe the patient's condition, helping develop an effective treatment plan.

Cognitive Processes and Decision-Making

Doctors rely on cognitive processes to make diagnoses and determine treatment. Cognitive processes enable them to select accurate information and identify needs.

- **Goal-Oriented Thinking:** Doctors use cognitive processes to make decisions focused on improving the patient's condition and selecting treatment methods. For instance, depending on the severity of the disease, doctors evaluate various treatment options.
- **Choice and Balance:** Cognitive processes help doctors assess different treatment methods and protocols. Doctors apply cognitive processes when making choices between different treatment methods.

CONCLUSION

The connection between cognitive approaches, cross-cultural differences, and medical terminology in diagnostics plays a crucial role in establishing clear and effective communication in the medical field. Medical terms play a decisive role in diagnosing diseases and developing treatment plans. Cross-cultural differences and religious perspectives may influence the acceptance of medical diagnostics and terms, and there may be semantic changes in medical terminology. Cognitive processes, on the other hand, play a crucial role in understanding the patient's symptoms, making accurate diagnoses, and planning treatment. Doctors rely on cognitive processes to evaluate the patient's condition, identify connections between symptoms, and select treatment methods. These processes also facilitate effective communication between patients and doctors.

Thus, the proper use of medical terminology, the effective application of cognitive processes, and the consideration of cross-cultural differences contribute to improving the quality of medical services. Understanding and considering the role of cognitive approaches and cross-cultural differences in medical communication, diagnosis, and treatment processes is essential for enhancing healthcare.

REFERENCES

J. Larry Jameson, Anthony S. Cultural Differences in

Medical Practice and Diagnosis. McGraw-Hill Education. 2022- New York

American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders (DSM-5). Arlington, 2013- VA, USA.

J. L. O'Neil, M. D. B. G. Garcia, C. M. Gonzales. Cultural Competence in Health Care: A Practical Guide. 2009- Burlington, MA, USA

Keith Frankish, William M. Ramsey (Editors). The Cambridge Handbook of Cognitive Science 2012- Cambridge, UK

Daniel J. Levitin (Editor. The Oxford Handbook of Cognitive Psychology. 2015-Oxford, UK

Aleksandrovskiy Yu.A., Bardenshteyn L.M., Avedisova A.S.

Psixofarmakoterapiya va psixik kasalliklarning chegara holatlari. – Moskva. – Geotar Meditsina. – 2000. – 250 b.

Bardenshteyn L.M., Shcherbakova I.V. Shizofreniya. Etiopatojeniz, klinika va davolash masalalari. // O'quv qo'llanma. – Moskva. – MGMSU nashriyoti. – 2011. – 123 b.

Bardenshteyn L.M., Shcherbakova I.V., Aleshkina G.A. Shizofreniya spektriga oid kasalliklar. // O'quv qo'llanma. – Moskva. – Infra M. – 2014. – 111 b.