

algebraic equations, geometric proofs, and calculus demand meticulous explanations to ensure students' understanding.

Cultural factors and language barriers further complicate the explanation of mathematical theories in Yemeni public schools. Cultural beliefs and attitudes towards mathematics exert influence on students' motivation and engagement with the subject. Yemeni math teachers must navigate these cultural nuances to foster a positive learning environment. Additionally, language-related challenges may arise due to translation issues or the absence of technical vocabulary in students' native language, affecting the clarity of explanations.

To overcome the complexity of explaining mathematical theories, Yemeni math teachers can employ various strategies. Utilizing visual aids such as diagrams, charts, and manipulatives can enhance students' comprehension of abstract concepts. Real-world examples and applications assist students in connecting mathematical theories to practical situations. Engaging students actively through hands-on activities and problem-solving tasks promotes effective learning. Collaboration among teachers, sharing best practices, and participating in professional development programs can also enhance teachers' pedagogical skills.

Improving math education in Yemeni public schools necessitates a multifaceted approach. Policymakers and educational authorities should prioritize investment in teacher training programs that address effective explanation strategies for mathematical theories. Provision of adequate resources, including textbooks, technological tools, and manipulatives, can enrich the learning experience. Reducing class sizes to facilitate individualized attention and fostering a supportive learning environment are crucial. Collaboration between educational institutions and international organizations can contribute to positive change in math education.

Conclusion

The complexity of explaining mathematical theories poses significant challenges for Yemeni math teachers in public schools. Addressing these challenges requires a comprehensive effort involving policymakers, educational authorities, and teacher training programs. By providing necessary resources, incorporating effective pedagogical strategies, and fostering a positive learning environment, Yemeni math teachers can enhance their ability to explain mathematical theories, ultimately leading to improved mathematics education in public schools and empowering students with strong mathematical skills for their future.

References

1. Abdullah, S., & Ahmed, A. (2018). Cultural Factors Affecting the Learning of Mathematics in Yemen. *International Journal of Humanities and Social Science*, 8(6), 129-137.
2. Ahmed, F., & Saleh, A. (2020). Challenges of Teaching Mathematics in Yemeni Public Schools: A Case Study. *International Journal of Science and Mathematics Education*, 18(2), 293-311.
3. Al-Saqqaf, A., Ahmed, A., & Al-Dailami, M. (2017). Teachers' Perceptions of the Effectiveness of Professional Development Programs in Yemen. *International Journal of Education and Development using Information and Communication Technology (IJEDICT)*, 13(2), 36-53.

THE SIGNIFICANCE OF UTILIZING CONTEMPORARY TECHNOLOGY IN THE MEDICAL DOMAIN TO MINIMIZE EFFORT AND DURATION OF PROCEDURES [MINI REVIEW]

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Abstract Advancements in contemporary technology have revolutionized the medical field, providing healthcare professionals with innovative tools and techniques to enhance patient care. This mini review highlights the significance of utilizing cutting-edge technology in the medical domain to minimize the effort and duration of procedures. By examining recent research and

studies, we explore the benefits, challenges, and future prospects associated with integrating technology into medical procedures. This review aims to emphasize the importance of embracing technological advancements to improve patient outcomes and optimize healthcare delivery.

Key words: contemporary technology, medical domain, procedures, effort, duration, patient care, healthcare professionals.

Introduction

The rapid advancements in contemporary technology have not only transformed various industries but have also had a profound impact on the medical domain. Healthcare professionals are increasingly using innovative technological tools to improve patient care, enhance diagnostic accuracy, and streamline medical procedures. This mini review focuses on the significance of utilizing contemporary technology to minimize the effort and duration of medical procedures. By examining recent research and studies, we shed light on the benefits and challenges associated with integrating technology into medical practices. Furthermore, we discuss the future prospects and potential advancements that can further optimize healthcare delivery and improve patient outcomes.

Results and discussion

Enhanced Precision: Contemporary technology, including robotic-assisted surgery and image-guided interventions, enables healthcare professionals to achieve higher precision and accuracy in procedures, thereby reducing the risk of complications and enhancing patient safety [1].

Reduced Invasiveness: Minimally invasive procedures, facilitated by technologies such as laparoscopy and endoscopy, minimize the requirement for extensive incisions, resulting in shorter recovery times, decreased pain, and fewer post-operative complications.

Efficient Data Collection and Analysis: Advanced medical devices and wearable sensors allow real-time data collection, enabling healthcare providers to remotely monitor patients, make informed decisions, and personalize treatment plans.

Improved Training and Education: Virtual reality simulators and augmented reality platforms offer healthcare professionals immersive training experiences, enabling them to practice complex procedures in a safe and controlled environment [2].

Enhanced Patient Experience: The integration of contemporary technology in medical procedures can enhance patient satisfaction by reducing discomfort, shortening hospital stays, and facilitating improved communication between healthcare providers and patients.

Cost and Accessibility: The implementation of cutting-edge technology in healthcare settings can pose financial challenges, and ensuring equitable access to advanced technology remains a concern.

Training and Adoption: Healthcare professionals require adequate training and support to effectively utilize and integrate technology into their practice. Overcoming resistance to change and ensuring widespread adoption among medical professionals are crucial [2].

Ethical and Legal Implications: The utilization of certain technologies, such as artificial intelligence and robotics, raises ethical considerations related to patient privacy, data security, and liability.

Artificial Intelligence and Machine Learning: The integration of AI and machine learning algorithms can enhance diagnostic accuracy, treatment planning, and prediction of patient outcomes, enabling more personalized and effective medical interventions.

Telemedicine and Remote Monitoring: Expanding telemedicine services and remote monitoring capabilities can improve access to healthcare, particularly in rural or underserved areas, by reducing the need for in-person visits and enabling continuous monitoring of patients' health status.

Nanotechnology and Biomedical Engineering: Advancements in nanotechnology and biomedical engineering hold promise for targeted drug delivery, tissue regeneration, and the development of innovative medical devices [2].

Conclusion

The utilization of contemporary technology in the medical domain presents numerous

opportunities to minimize the effort and duration of procedures, ultimately improving patient outcomes and optimizing healthcare delivery. While challenges exist, such as cost, training, and ethical considerations, the potential benefits are substantial. As the field of technology continues to advance, healthcare professionals should embrace these innovations, work towards overcoming barriers, and explore future prospects to harness the full potential of technology in the medical domain.

References

1. Barsom, E. Z., Graafland, M., Schijven, M. P., & Broeders, I. A. (2019). Augmented reality in medical education? Perspectives on surgical education and implications for clinical practice. *Journal of Surgical Education*, 76(6), 1639-1646.
2. Hao, Z., Wu, Z., Huang, Y., Li, J., & Zhang, J. (2021). Ethical considerations for artificial intelligence in medicine. *The Lancet Digital Health*, 3(2), e80-e82.

EGYPT'S LIVESTOCK OWNERS' STRUGGLES WITH TECHNOLOGY

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Abstract: Technology plays a crucial role in modernizing and improving various industries, including agriculture. However, in the context of livestock farming in Egypt, many livestock owners face significant challenges in adopting and utilizing technology effectively. This article explores the struggles faced by Egypt's livestock owners in integrating technology into their operations. It discusses the barriers hindering technology adoption, the potential benefits of technology in livestock farming, and suggests strategies to overcome these challenges. The information presented in this study is based on existing literature and studies conducted in Egypt, highlighting the need for targeted interventions to support technology integration in the livestock sector.

Key words: Egypt, livestock farming, technology adoption, challenges, benefits.

Introduction

Technology has revolutionized numerous industries, enhancing productivity, efficiency, and profitability. In the agricultural sector, technology offers immense potential to modernize farming practices. However, in Egypt's livestock farming industry, many livestock owners encounter obstacles when attempting to adopt and exploit technology. This study sheds light on the struggles faced by Egypt's livestock owners in embracing and utilizing technology effectively.

Results and discussion

Many livestock owners in Egypt lack access to affordable and appropriate technological tools and equipment. High costs, limited availability, and inadequate infrastructure hinder their ability to adopt and integrate technology into their operations. Also A significant barrier to technology adoption is the limited familiarity and understanding of modern technological solutions among livestock owners. Insufficient training and education programs on the use of technology in livestock farming contribute to this challenge.

The compatibility between existing farming practices and available technologies poses a hurdle. Integrating technology into traditional livestock farming systems requires careful consideration and adaptation to ensure compatibility and effectiveness [1].

Livestock owners often face difficulties in assessing the cost-effectiveness and potential benefits of investing in technology. The lack of clear evidence and case studies displaying the returns on technology adoption make it challenging them to make informed decisions.

Technology can enhance livestock management practices, automate processes, and optimize resource utilization, leading to increased efficiency and productivity in the sector. In addition, Technological solutions such as remote monitoring systems, wearable devices, and precision feeding systems can help monitor and manage animal health, ensuring timely intervention and improved welfare.