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Review of Digitalized Patient Education in Cardiology: A Future Ahead?

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Abstract (600 word limit)

Introduction: An increased focus on shared decision-making and patient empowerment in cardiology and on patient outcomes such as quality of life, depression, and anxiety underline the importance of high-quality patient education. Studies focusing on digital means of patient education performed in other disciplines of medicine demonstrated its positive effect in these areas. Therefore, a review of the current literature was performed to (i) evaluate the status of innovative, digitalized means of patient education in cardiology and (ii) assess the impact of digital patient education on outcome parameters (i.e., patient knowledge (or health literacy), qol, depression, anxiety, and patient satisfaction). Method: This review compares 3 digital patient educational platforms for patient knowledge, qol, depression or anxiety, and patient satisfaction, within the field of cardiology. We found that 3 main platforms were used in this search, namely education video, smartphone or tablet application, and web-based information. One article is based on a 3D video on a VR headset, possibly due to the novelty of the platform. Overall, the authors demonstrated a positive effect on the primary outcomes of patient knowledge, qol or anxiety, and patient satisfaction. Conclusion**:** This review demonstrates that digital patient education increases patient knowledge. Overall, digital education increases qol and lowers feelings of depression and anxiety. The majority of patients express satisfaction with digital platforms. It remains important that developers of digital patient education platforms remain focused on clear, structured, and comprehensible information presentation. Three of the 6 papers focusing on smartphone applications used a control group to test their application. Exclusively on patients with heart failure and divided their population into a control group receiving standard care, and an intervention group receiving a tablet computer with connection to a weighing scale and information on how to improve life with heart failure.

Importance of Research (200 words)

Patient education is gaining importance due to an increased focus on shared decision-making and patient empowerment in cardiology. Patient outcome metrics such as quality of life (qol), therapy adherence, depression, or anxiety are influenced by patient education Previous research demonstrates potential improvements in patient education based on “demand-matched” education, that is, the individualization of content, the use of combined media, and more patient-centered information. Although the importance of adequate patient education is known and several methods to improve education have been explored, the current approach remains insufficient to fulfill the expectations and demands of patients and cardiologists. The involvement of digitalized education modalities such as smartphone applications, videos (three-dimensional [3D]), web-based content, or virtual reality (VR) is increasingly embraced in patient education in many disciplines of medicine. These modalities include the latest innovations in the field of digital media such as 3D videos or VR, which may provide new dimensions for patient education.

Biography: (200 words)

Mohammed Abdullah Takroni a cardiac rehabilitation specialist graduated from king Saud University at 1992

with a bachelor degree in physical therapy, in Fellowship program in cardiopulmonary rehabilitation at Duke University and Medical (DUMC), North Carolina, USA, 1996. Master degree in physical therapy from King Saud University 2008, and also Master degree in sport medicine and rehabilitation, Manchester Metropolitan University (MMU), United Kingdom, 2009. Phd, in Cardiovascular and pulmonary Rehabilitation, Glasgow Caledonian University, Glasgow, UK, 2011. Member of the American Association of Cardiovascular and pulmonary Rehabilitation (AACVPR), member of the Irish Association of cardiopulmonary rehabilitation (IACR), member of the British Association for Cardiovascular Prevention and Rehabilitation (BACPR), member of Saudi Heart Association (SHA).

Info of institute & lab

The King Faisal Specialist Hospital and Research Centre (KFSH&RC) is a 985-bed tertiary/quaternary care and referral hospital with facilities in Jeddah and Riyadh in Kingdom of Saudi Arabia. It is the national referral and research centre for oncology, organ transplantation, cardiovascular diseases and genetic diseases and we provide treatment for everything from minor to complex and advanced medical conditions for Saudi Arabian nationals. We hold Joint Commission International (JCI) accreditation as an Academic Medical Centre, and American Nurses Credentialing Centre (ANCC) Magnet designation. We are recognized as one of the leading healthcare organizations in the Middle East. The main priorities of KFSH Research include Cancer Research, Cardiovascular Disease, Stem Cells Therapy and Genetics Research & others, thus making it one of the world top centers in rare diseases research..

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