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EDITORIAL

Tawheed A, Bahcecioglu IH, Yalniz M, Ozercan M, Oral AC, El-Kassas M. Summary of the current guidelines for managing iatrogenic colorectal perforations and the evolving role of endoluminal vacuum therapy. *World J Clin Cases* 2025; 13(6): 97545 [DOI: [10.12998/wjcc.v13.i6.97545](https://doi.org/10.12998/wjcc.v13.i6.97545)]

ORIGINAL ARTICLE**Retrospective Study**

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Arora N, Muengtawepong S. Advancements and challenges in neuroimaging for the diagnosis of intracranial aneurysms: Addressing false positive diagnoses and emerging techniques. *World J Clin Cases* 2025; 13(6): 98606 [DOI: [10.12998/wjcc.v13.i6.98606](https://doi.org/10.12998/wjcc.v13.i6.98606)]

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Behera RK, Morya AK, Gupta PC, Singh A. Virtual reality based apps are the future of patient: Counseling. *World J Clin Cases* 2025; 13(6): 100596 [DOI: [10.12998/wjcc.v13.i6.100596](https://doi.org/10.12998/wjcc.v13.i6.100596)]

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Virtual reality based apps are the future of patient: Counseling

Ranjan K Behera, Arvind K Morya, Parul C Gupta, Arshi Singh

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Abstract

The use of virtual reality to educate preoperative patients has a positive impact on nurses as well as patients undergoing treatment. It can help improve patient satisfaction and improve favorable outcomes by reducing patient anxiety and proving adequate knowledge about the procedure and possible outcomes to the patient. It also reduces burden on nursing staff and counsellors. Larger and more diverse cohort studies will help us understand the wider application of this tool on the patient population. It may be difficult to apply this tool on elderly patients with failing eyesight, multiple physical comorbidities. Also, there may be reduced acceptance of this modality by older nursing staff and practitioners who may prefer the traditional verbal version for counselling. We will benefit from a combined approach of using virtual reality apps with tradition one-on-one counselling to help alleviate patient concerns and improve patient and healthcare professional satisfaction.

Key Words: Nurse; Patient; Virtual reality; Counselling; Healthcare

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Core Tip: Change is the only constant-this is more relevant for the ever evolving and changing medical field. There is so much material available on various internet search - engines regarding almost every health disorder. There are conflicting views presented by different authors that becomes quite overwhelming for the patient. The nursing officers plays a major role in patient counseling. They use simple language, images, and animated video during the pre-operative phase. Now the newly equipped virtual reality apps are fast becoming an important tool for the patients to get the gist of their condition in a best manner. Virtual reality technology has wide-spread benefits in the field of medicine especially in improving health care delivery to patients. The preoperative counselling may be greatly enhanced by use of these tools. It provides insights to patients about their disease and the treatment approach. It also will improve professional satisfaction for health care workers and reduce their work burden. There are few limitations to this technology which call for a holistic approach by combining the old verbal and paper-based methods with the newer methods to deliver the best outcomes to the patients as well as the healthcare providers.

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TO THE EDITOR

We recently read the article by Kim *et al*[1] published in *World Journal of Clinical Cases*. We would like to commend the authors for carrying out this informative and significant study that could become a game-changer in the future, as far as pre-operative counselling of the patient is concerned, and would like to share some of our thoughts regarding this study.

The authors[1] have done an outstanding job by comparing the impact of traditional verbal education *vs* virtual reality (VR) for pre-operative counselling in the overall satisfaction, of both the patient as well as nurses. This prospective experimental study involved each nurse educating a total of 4 patients: 2 with traditional paper-based education and 2 with VR-based technology using the Insta 360 ONE X (Seoul, South Korea) head mount device and recording the subsequent overall satisfaction and burnout rates. This showed an overall significant improvement in the satisfaction, usability, and personal accomplishment rates for both the patients and nurses. This has a positive impact, as by using VR technology, the patient's fears can be alleviated as he will have a virtual sense of what and how exactly things will happen on the day of surgery[1-3]. This also would lessen the burden on the healthcare providers in providing pre-operative counselling, as multiple patients can watch the presentation instead of the one-on-one traditional paper-based approach which is time-consuming and cumbersome. Eventually, this will improve overall satisfaction and instill a sense of personal accomplishment among the nurses as they are exposed to the latest technologies also in the era of the digital world, would have a positive impact and would be more relatable for the patients undergoing surgery[4]. The use of standard survey tools like the Likert scale, after scenario questionnaire and Maslach burnout inventory, also increases the authenticity of the study as these are widely used and well-validated methods.

Although this study[1] justifies the use of VR technology, there are some limitations and things to be considered. The cost factor is one of the most important issues in VR technology, although this may be beneficial and practical in developed countries like South Korea where this study was done but would have a major impact and possibly be impractical in resource-limited developing and third world countries. Using VR technology involves the cost of acquiring the equipment, training of the staff and costs related to repair and maintenance of the equipment which will add to the financial burden on the healthcare sector. The study involved only 80 patients, which is a low sample size and patients only from the plastic surgery department were included so these results may not apply to all specialties of medicine. The mean age of patients as well as nurses in this study was quite young so this can be a challenge for senior nurses and senior citizens who may not be well versed with the latest VR technology which may prove a hindrance rather than benefit in counselling. Senior nursing staff may not be as enthusiastic as the younger lot in learning new technology as they may believe in a more traditional paper-based approach in pre-operative counselling thus defeating the whole purpose. VR technology, although useful, may not be applicable in claustrophobic patients, with visual and cognitive impairment and in emergencies. The most notable limitation in the use of VR technology is the increased depersonalization during counselling, as all fears and doubts of the patient may not be alleviated. One-on-one counselling using traditional methods instills a sense of bonding, care and trust between the patient and the caregiver which puts the patient at ease and can help in better preoperative, intra-operative and postoperative recovery journey of the patient[5]. This study also showed increased depersonalization using VR technology but was statistically insignificant, but given the low number of subjects, seems questionable. The assessment tools and questionnaires used in this study provide a subjective outcome of the benefit of VR technology which is not completely reliable and may be biased based upon several factors and there is a need for a more objective assessment. The type of patients included in this study mostly required reconstructive surgery so the mental status of these patients may be a confounding factor as these patients although benefitting from VR technology would also like personal one-to-one communication and reassurance to instill a sense of trust given their mental condition which may not be completely addressed using VR technology. To conclude, VR technology looks promising in the near future and may definitely improve the healthcare delivery to patients by providing an insight into their condition along with improved professional satisfaction, reduced workplace stress and

burnout for healthcare providers. However, certain factors are limiting their use which calls for a more holistic approach, wherein using a traditional one-to-one personal paper-based approach combined with VR technology can go a long way in delivering the best outcomes to the patients as well as healthcare providers.

FOOTNOTES

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