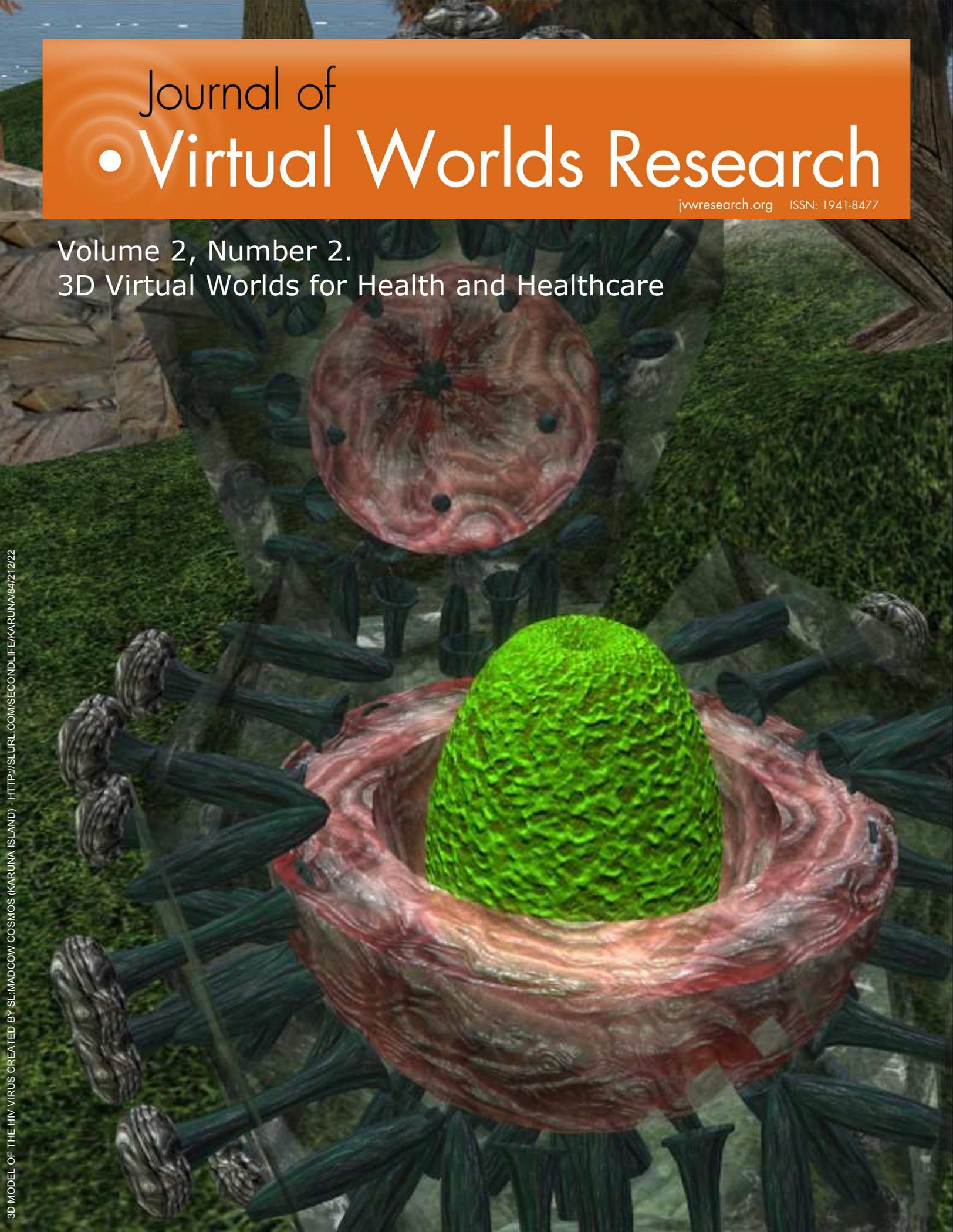


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Virtual Worlds, Collective Responses and Responsibilities in Health

By Rashid M Kashani, University of Alberta, Canada

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Abstract

Virtual worlds are an exciting area offering opportunities in clinical teaching and interventions. Clinicians and academics alike may approach these emerging opportunities with enthusiasm or scepticism. Attitudes towards applying virtual worlds in clinical practice may arise from a number of sources, facilitating a more or less positive view towards this media. Virtual worlds have the potential to provide a considerable amount of control to end users' (in this case, the client's) hands. The argument put forth is that we should collectively acknowledge changes in information technology and the power that this gives the health care user, but we also have a collective responsibility to ensure virtual worlds are adapted, tested, and studied with sufficient rigour to benefit health care consumers and population needs. Occupational therapists specifically may be in a unique position to adopt the use of virtual worlds in clinical practice.

Keywords: virtual worlds; health; occupational therapy; client; clinician.

Virtual Worlds, Collective Responses and Responsibilities in Health

By Rashid M Kashani, University of Alberta, Canada

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Following a recent demonstration of virtual worlds using Second Life (SL) to a visiting academic and a handful of observers, one student occupational therapist (OT) created an avatar on SL the same day. Later that evening, I received an instant message on my Blackberry for Professor Boa, my SL avatar. “Hi, this is Anna [her avatar name]. There are weird people bothering me. How do I get out of here?”

While lending some immediate support and answering another question from her the next day, I reflected on how her experiences were not unlike others first venturing into this medium. My student continued to use SL despite her initially unpleasant experiences. For others though, such experiences may result in abandoning virtual worlds out of frustration. The new user experience, which is often characterized by a combination of learning the social norms and technical aspects of interacting with a virtual community, may be a sufficient barrier preventing clinicians from seeing the potential value of using virtual worlds in education, research, and interventions. In fact, several factors require acknowledgment before clinicians widely adopt virtual worlds in practice. The aim of this paper is to stimulate discussion around potential barriers to adopting virtual world applications for use in health care, and ways to eliminate or reduce barriers.

Fear of the Unknown

Immersing oneself into a completely new and different environment can feel threatening. One is learning to navigate and interact in a novel, immersive, and sometimes misunderstood medium. Some media coverage has included a decidedly biased slant and lack of understanding of the purpose of virtual worlds, referring to them repeatedly as games (Garntner, 2009). There have been documented issues with virtual crimes too (Holyoke, 2007). Some SL avatars wait at orientation areas for new arrivals, such as the “weird people” mentioned by my student, and embarrass them with their lack of familiarity with virtual worlds. Such experiences may be enough to make some health professionals reluctant to adopt this media.

Clinician Barriers

While most health professionals are required by their regulatory body to maintain a portfolio of clinical competencies, many formal continuing competence opportunities offered to clinicians, such as to OTs, may be focused on the maintenance of existing skill sets, or restricted to an approved course list (American Occupational Therapy Association, 2008). Depending on the specific profession and legislated continuing competency program, learning to use a virtual world may not count towards a clinician’s continuing competency hours.

An additional obstacle to adopting the use of virtual worlds in clinical practice may be a perception that one must be fluent in computer programming and graphics applications to interact within a virtual world. As a result of these perceptions, clinicians may not see virtual worlds as a priority for practice development, state that they do not have time to explore them, and derive most of their information on virtual worlds from the popular press, as there are few research papers to date on clinical applications in virtual worlds. For example, occupational therapy literature has very few studies dedicated to virtual technologies. At the time of writing, an OTDBASE search reveals fewer than twenty studies using virtual reality, and none specific to virtual worlds.

Paternalism

The transfer of more control, not less, into a client's hands is a goal towards which many health professions, particularly OTs, strive. SL, however, has been characterized as potentially addictive (Cremorne, 2007) or having deleterious side-effects (Gorini, Gaggioli, Vigna and Riva, 2008), even by supporters of this media (although without providing empirical data). Clinicians may be inclined to protect those deemed at risk for manipulation in a virtual world, or even to discourage clients from using them, especially since the popular press has skewed public perception of them as potentially causing harm.

Responsibility of virtual world designers and administrators

If virtual worlds are to be used widely in health application, there needs to be more than just acknowledgement that there are real technical issues in using them. Developers need to address issues pertaining not only to bandwidth, but also acknowledge cognitive and physical skills required to access present forms of virtual worlds. Other responsibilities are the assurance of safety and inclusivity beyond the basic terms of service. Depending on the user population and demographics, some may still find the user interface of virtual worlds, such as SL, too physically or cognitively taxing for meaningful interactions. What must also be acknowledged by virtual world administrators is that those who elect to discount the issues of the new user experience, or provide a decidedly skewed view in the media, do virtual worlds a disservice as a legitimate tool of clinical practice.

Virtual world designers and administrators need to respond to the technical issues, but also have to become adept at addressing public opinion, possibly both through position statements and through collaborating on research. Without addressing the issues of public opinion, inclusivity, and protection of what may be perceived as the more vulnerable users, adoption may be slowed by these barriers. Virtual world designers and administrators need to consider purposively recruiting health professionals and health consumers as a means to collaboratively construct virtual worlds free of these barriers.

Including clinicians who are early adopters of virtual worlds in the planning and implementation of orientations, development of more inclusive user interfaces and a concerted effort to support widespread research might ameliorate some of the direct challenges previously outlined. There needs to be a specific action plan by developers to demonstrate increasing ease of use, a reduction in technological barriers, and development of partnerships between developers and the clinical community. Approaching disciplines that incorporate the influence of cultural, social and physical environments, such as occupational therapy, would be prudent.

What then, might be the clinician responsibility?

Virtual worlds offer a level of three dimensional interactivity and flexibility not available in other forms of online interaction. Clinicians, researchers, and educators need to be introduced to both the potential beneficence as well as adverse effects of virtual worlds to health and well being. Given the available literature in some disciplines, many areas remain unstudied. Therefore, rigorous studies are needed to focus on specific populations to determine if this is an effective intervention. While this may sound like a new, daunting practice challenge, it behoves clinicians to realize that this sound scientific reasoning is missing from many clinical practices, not just in the area of virtual worlds (Booth, n.d.).

Perhaps what are needed in addition to the tailoring of specialized programs are more in-depth orientations and more formal mentor support in using virtual worlds with specific populations. The development of this support may ameliorate some of the new user issues of the present day, and our own concerns of exposing those we consider at risk to this media. Academics may try to introduce this as both a tool and a meaningful occupation of future clients. Clinicians and researchers could be encouraged to develop programs and orientations specific to individualized client populations.

Geographic areas in some virtual worlds do focus on inclusion of those with varying cognitive and physical ability. SL has an area dedicated to this concept of inclusion, an area called Virtual Ability. Though an orientation area, such as Virtual Ability, for people with varying abilities is a valuable resource, perhaps what are needed are customized orientations for specific population needs. Further exploration is also required to see if these are effective in meeting client needs. While several different disciplines are capable of researching and using this media in teaching and clinical use, OTs have specialized activity analysis skills, and are in a unique position to develop programs addressing specific diagnostic population needs within an immersive virtual world environment. Virtual worlds offer medical information, and much more, in terms of socialization, creativity, occupation, and even spirituality.

How we best determine tailoring and testing of individualized programs and engaging input into their development and testing remain significant questions. Input from expert clinicians and consumers of health services may serve as a partnership in the development of the next-generation social web and may be a natural progression from the collaborative nature of many social web developments in wide use presently.

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