



**Perley Rideau**

The Perley and Rideau  
Veterans' Health Centre



# Virtual Reality Relaxation Therapy Study at Perley Rideau

## Background

Perley Rideau has joined researchers from OpenLab and York University to support a Virtual Reality (VR) Relaxation Therapy Study for long-term care residents. The study seeks to determine whether VR helps to decrease responsive behaviours in residents with dementia. As an added benefit, this research will examine whether this technology can support staff in the provision of care during times that can lead to responsive behaviours, such as the changing of wound dressings.

## What is Virtual Reality?

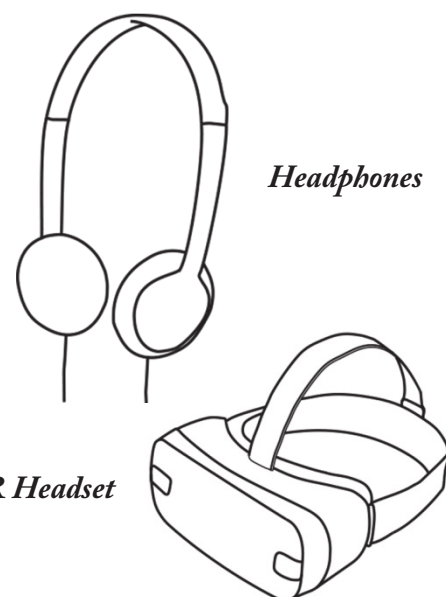
Virtual Reality (VR) combines a headset (similar to ski goggles) and headphones to create an immersive environment of sights and sounds responding to head movements up, down and side to side. For example, in a beach visit, looking up exposes a sunny, blue sky while looking down reveals a sandy beach, all reinforced by the sounds of crashing waves. This VR library can range from a night at the opera to a walk in the forest and many other experiences. And with the recording technology onsite at Perley Rideau, our VR library continues to grow. Recently we added a video of the Parliament Hill winter light show and a night at the pub. The possibilities are endless and all suggestions to create new experiences are welcome.

## What's to see?

As an introduction to VR therapy, residents have enjoyed natural environments that are calming such as a peaceful forest walk and an relaxing trip to the beach.

For residents who embrace this VR therapy, a member of the Therapeutic Recreation and Creative Arts staff may suggest more stimulating experiences including music and dancing or sporting events. Resident safety is paramount, so all participants must be seated and stationary during the VR therapy, to reduce the risk of discomfort or adverse reaction or injury.

## Head Mounted Display



*The weight of the VR device is evenly distributed across three elastic straps. The soft, foam pads rest on the forehead and glasses can be accommodated. The headset is also compatible with hearing aids.*

## Safety

While this is a low-risk study, safety concerns may arise. The research team has worked diligently to ensure all residents meet the criteria to be included in the study. Reasons for exclusion include the presence of a pacemaker or implanted defibrillator or a history of seizures or vertigos.



Prior to each VR therapy session, a member of the Therapeutic Recreation and Creative Arts staff will support resident participation to ensure comfort and safety. Staff will be present at all times during a session. If a resident exhibits any discomfort, the session will be stopped immediately.

## Comfort

The researchers from OpenLab have completed over 50 trials in long-term care homes and hospitals including with individuals 80 years of age and older. Few of the participants experienced difficulty or discomfort with the headset or the experience.

## Session Duration and Participation

Resident participation is voluntary. Most sessions last 20 minutes. However, the time may be extended if there is a resident benefit. The resident or substitute decision maker may stop the session at any time.

## How can this help my resident?

A previous study, "Prescribing VR", found that VR therapy is a viable solution for residents with dementia and provides relaxation and other benefits. VR has shown great potential for persons living with dementia, and for decreasing pain in burn patients during dressing changes.

Several residents at Perley Rideau have experienced VR therapy. Residents who are cognitively well usually respond with words such as "wow, look at that" and "this reminds me of...". Residents who are cognitively impaired are often visibly engaged looking around, with the cuing from staff. We believe there will be substantial benefits in offering VR therapy to residents.

## Family and Staff

It is possible for family and staff to simultaneously view the VR therapy exhibited to the resident via a second device (like an iPad). Family and Staff are also welcome to try the VR experience.

During challenging events, such as wound dressing change, we anticipate VR therapy will help improve the experience for residents and, by extension, for staff. During these events that can sometime be stressful, if a resident is calm and relaxed and not anxious and responsive, the VR therapy will help reduce the use of antipsychotic medications and decrease the stress levels of staff while reducing the risk of injury.

In the future, families and friends will be empowered to personalize the VR therapy by videotaping sights and sounds that they want to share with residents.



## Contacts

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