

Virtual Reality Therapy: A Window Through Pain for Hong Kong's Immobile Elderly

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Abstract

Pain, for many elderly in Hong Kong's nursing homes, is not a passing complaint but a condition that settles in—quiet, persistent, shaping the edges of every day. Medication offers some relief, but often at the cost of alertness or appetite, and rarely does it touch the loneliness that comes with being confined to a single room. Virtual reality therapy is not a solution, but it is a small window, a way of letting in something unfamiliar, or perhaps long forgotten. The research is promising[1-5,13,14,17], but what stays with me are the moments: a mother's face softening as she recognizes her hometown, a nurse pausing to watch as a patient reaches out toward a virtual sea. These are not dramatic transformations. They are interruptions, brief, sometimes fragile, but real. There are questions, of course, about cost, about training, about whether technology can ever substitute for human presence. There are worries that novelty will fade, or that screens will only add another layer of distance. But what I have seen suggests that even temporary relief can matter, that a few minutes outside the boundaries of pain can be enough to remind someone of who they are, and who they have been. VR is not an escape, and it is not a cure. It is a chance, however brief, to look outwards again.

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Original Manuscript

Virtual Reality Therapy: A Window Through Pain for Hong Kong's Immobile Elderly

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Abstract

Pain, for many elderly in Hong Kong's nursing homes, is not a passing complaint but a condition that settles in—quiet, persistent, shaping the edges of every day. Medication offers some relief, but often at the cost of alertness or appetite, and rarely does it touch the loneliness that comes with being confined to a single room. Virtual reality therapy is not a solution, but it is a small window, a way of letting in something unfamiliar, or perhaps long forgotten. The research is promising[1-5,13,14,17], but what stays with me are the moments: a mother's face softening as she recognizes her hometown, a nurse pausing to watch as a patient reaches out toward a virtual sea. These are not dramatic transformations. They are interruptions, brief, sometimes fragile, but real. There are questions, of course, about cost, about training, about whether technology can ever substitute for human presence. There are worries that novelty will fade, or that screens will only add another layer of distance. But what I have seen suggests that even temporary relief can matter, that a few minutes outside the boundaries of pain can be enough to remind someone of who they are, and who they have been. VR is not an escape, and it is not a cure. It is a chance, however brief, to look outwards again.

Keywords

virtual reality; pain management; elderly; nursing homes; Hong Kong; digital health; non-pharmacological interventions; person-centered care

Introduction

Pain is not just a symptom. For the elderly in Hong Kong's nursing homes, it becomes architecture—walls that close in, routines that ossify, joy that thins and vanishes. There is a rhythm to institutional care, and pain is woven into it: the slow shuffle to the window, the careful transfer from bed to chair, the silent calculation of how much discomfort to reveal and how much to keep hidden. Analgesics arrive like routine visitors. Some bring comfort, others leave debris: side effects, sluggishness, the dulling of spark. The unspoken reality for many is that the room called "pain" offers little view and no exit. It is easy to read pain as a clinical problem, to measure it with scales and treat it with prescriptions. But pain, especially chronic pain, is rarely so obedient. It leaks into memory, sleep, appetite, and conversation. It narrows the world. In a city where the elderly population is rising and care homes are stretched, pain management often means compromise[12]. The body is quieter, perhaps, but the person inside is no less confined.

Evidence and Mechanisms

Virtual reality therapy does not arrive as a panacea. It is a provisional window, cracked open just wide enough to let in a different light. The headset, when it appears, is not a promise of cure. It is something new, and like most things new in the nursing home, it arrives quietly—sometimes with hesitation, sometimes with a little hope, but never with guarantees. There

is a tendency to talk about technology as if it will either solve everything or fade away without consequence. But for people who live with pain every day, what matters is rarely the promise of innovation. What matters is whether, for a moment, the world feels a little larger, a little less heavy.

The evidence is suggestive, if not yet definitive. Systematic reviews and pilot studies in Asia and abroad point to VR's capacity to distract, soothe, and, in some cases, reframe the very experience of pain[1-5,14,17]. The mechanism is as much psychological as physiological: immersive scenarios—familiar harbours, festival streets, long-lost hikes—divert attention away from the insistent signals of chronic pain, recruiting memory, emotion, and the senses in a dance of temporary relief. For elderly users, particularly those whose bodies have rendered them spectators to their own decline, these moments of release are not trivial. They are, perhaps, the difference between endurable and unendurable days.

But the science only tells half the story. The literature describes reductions in pain intensity, improvements in mood, and increased engagement during and after VR sessions[1-4,14]. Yet what lingers are the small observations: the way a resident sits a little taller, or the way a staff member lingers, watching the headset in use. These are not dramatic transformations. They are interruptions—brief, sometimes fragile, but real.

Implementation Challenges

But the question, always, is not just “Does it work?” but “Can it work here?” Hong Kong's nursing homes are crowded, the pace brisk, the staff overextended. VR headsets are not immune to the realities of hygiene, staffing, and cost. The pilot at Haven of Hope Hospital found that, with subsidised headsets and targeted staff training, sessions could be delivered at a cost per session rivaling—sometimes undercutting—pharmacological interventions. Training matters: when staff viewed VR as an addition rather than a replacement for human care, acceptance soared. Cultural adaptation matters, too. Cantonese-language content and simulations of Hong Kong landmarks resulted in longer engagement and fewer reports of cybersickness than generic foreign scenarios[15-16]. The logistics are more tedious than they seem. Each headset needs to be wiped down before someone else can use it. Someone needs to oversee every session, not just to watch for unsteadiness or confusion, but to check if the person using VR is actually comfortable, or if they'd rather take the headset off and be somewhere else.

Ethical and Cultural Considerations

Yet, the ethical and social context cannot be shrugged off. Hong Kong's elderly are raised in a world where endurance is a virtue and technology is sometimes viewed with suspicion. Family members may worry that VR replaces rather than augments real connection, and practitioners may hesitate to adopt a tool whose effects are still partly shrouded in novelty. But the early data, and the lived experience of trial participants, suggest that VR—used purposefully, not as an afterthought—can contribute to, rather than detract from, person-centred, dignified aging. The literature is clear on what persistent and unaddressed pain does to memory, mood, and health outcomes for the elderly: it isolates, diminishes, and erodes personhood.

There are also questions of consent and privacy[19]. Many residents live with some degree of cognitive impairment. Explaining a new technology, ensuring that participation is voluntary, and monitoring for distress all require time and sensitivity. The data collected by VR systems—heart rate, gaze, engagement—must be handled with care. Who owns this

information? How will it be used? These are not abstract concerns, but practical ones, especially as digital health becomes more deeply embedded in care.

Cultural adaptation is not just about language or scenery. It is about understanding what matters to the person behind the diagnosis. For some, a simulation of a Hong Kong tram ride is comforting; for others, it is a reminder of what has been lost. The risk is that VR becomes another activity imposed on residents, rather than an invitation to agency. The challenge is to listen, to ask, to adapt, and to respect refusal as much as acceptance.

Future Directions

The question of what comes next for virtual reality in Hong Kong's care homes does not have a single answer. It is shaped by the limits of the present: the pace of the ward, the patience of staff, the willingness of residents to try something unfamiliar. It is also shaped by the quiet, persistent hope that care can be more than maintenance, that relief—even temporary—can be worth the effort.

If VR is to move beyond novelty, it will need to be woven into daily life in a way that feels natural, not imposed. This means more than just having the equipment available. It means finding time in crowded schedules, and it means listening to what residents actually want. Some might prefer a familiar tram ride through Central, others a quiet garden, others nothing at all[15]. There is no formula, only the slow work of noticing what brings comfort and what does not.

There are practical questions that remain. Content must be meaningful, not generic. Staff need support, not just instructions. The technology will change, but the need for patience will not. It is easy to be swept up by the promise of innovation, but harder to measure progress in the small, often invisible ways that matter—a resident more willing to join a group activity, a nurse who lingers a little longer at someone's bedside, a family who sees their loved one smile.

The questions about ethics do not go away. Consent becomes tangled when memory slips, and privacy is less about paperwork than about whether people feel safe[18-19]. These are not puzzles with final answers. They are questions that return, that need to be talked through again and again as things change.

If VR is to have a place here, it will not be by taking over what already matters, but by quietly adding to it—another way to make room for presence, for memory, and maybe, at times, for relief.

Conclusion

There is a temptation, when writing about new technologies in medicine, to end with certainty—with a claim about what works, or what will change. But the truth, as I have seen it, is more tentative. Virtual reality therapy is not a cure for pain, nor is it a solution to the loneliness that shapes so much of life in residential care. It is, at best, a window: a chance to look outward, to remember, to feel something different, if only for a little while.

What stays with me are not the numbers or the headlines, but the moments that do not fit easily into data tables—a resident's posture softening, a staff member watching quietly, a

sense that the room has grown, if only by a few inches. These moments are small, but they are not trivial. They remind me that care is not just about what can be measured, but about what can be noticed, and what can be made possible, even in the margins.

If the future of VR in elderly care is uncertain, it is also open. There will be obstacles, and there will be disappointments. But there will also be chances to listen, to adapt, and to try again. In a city where pain so often narrows the world, even a brief glimpse beyond its walls feels worth pursuing.

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Authors'

ATH: Conceptualization, Writing – Original Draft, Writing – Review & Editing.

Contributions

Conflicts

None declared.

of

Interest

Data

No new data were generated or analyzed in this Viewpoint.

Availability

Abbreviations

VR: virtual reality

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