

## Virtual reality for pain related health literacy in people with persistent pain: protocol for a scoping review.

Nathan Skidmore<sup>1</sup>, Cormac Ryan<sup>1</sup>, Jagjit Mankelow<sup>1</sup>, Denis Martin<sup>1,2</sup>

<sup>1</sup>School of Health and Life Sciences, Teesside University

<sup>2</sup>NIHR Applied Research Collaboration for the North East and Cumbria

### Abstract

**Background:** Patient education remains a key element in the provision of healthcare for people with chronic or persistent pain and is used to help patients develop health-related skills leading to the improvement of health. When a patient understands the education they receive, they manage their health better. Patients with low health literacy find the management of long-term conditions more difficult therefore the requirement for better health literacy in patients with persistent pain is warranted. Virtual Reality may act as an effective tool for the development of patient education and health literacy and has been shown to be more effective than other methods of delivery, such as text reading.

**Objectives:** To present a protocol for a scoping review which aims to establish and present a comprehensive overview of existing research on the use of virtual reality as a tool to promote pain related health literacy in patients with persistent pain.

**Data sources:** We will conduct a systematic search of several electronic databases from inception to the present within CINAHL, PubMed, Embase, PsychInfo.

**Study selection or eligibility criteria:** Studies which use virtual reality to provide education to patients who report persistent pain will be included.

**Study appraisal and synthesis methods:** Data will be extracted and mapped against the Health Literacy Pathway Model to identify characteristics of health literacy within educational interventions. This will then be presented alongside descriptive statistics and narrative thematic analysis to illustrate patterns, similarities, gaps and opportunities associated with the research topic.

### Keywords

Virtual Reality, Health Literacy, Patient Education as Topic.

### Introduction

Patient education remains a key element in the provision of healthcare for people with chronic or persistent pain [1] and is used to help patients develop health-related skills [2]. It can be defined as education that helps patients learn and develop health-related competencies alongside helping them promote existing behaviours leading to the improvement of health, disease outcomes and quality of life [2, 3, 4]. The National Institute for Health and Care Excellence (NICE) recommends that pain education should be included as part of good clinical practice [5]. Education aims to facilitate effective information communication and the promotion of shared-decision making, thus

supporting the provision of patient centred care [5]. When a patient understands the education they receive, they learn to develop many competencies and behaviours which can enable the better management of health [1, 2].

Health Literacy entails people's knowledge, motivation and competencies to access, understand, appraise and apply health information to promote and maintain their health status [6]. Although definitions for health literacy have been numerous and ambiguous, there appears to be a developing consensus around 3 levels; functional, iterative and critical [7]. Obtaining basic/functional literacy, thus enabling sufficient reading and writing health-based competencies, is a precursor to gaining communicative/iterative health literacy. The latter features the advanced cognitive capacity used to

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### Corresponding author:

Nathan Skidmore, School of Health and Life Sciences, Teesside University, Middlesbrough, Tees Valley, TS1 3BX, United Kingdom [n.skidmore@tees.ac.uk](mailto:n.skidmore@tees.ac.uk)

extract information, derive meaning from health communications and the capability to apply this information to changing circumstances. Although related, patient education and health literacy are two separate concepts. The end-goal of patient education is to promote patient health literacy, in that together with social skills, patients are able to not only critically analyse and use information to promote self-management but also facilitate decision making related to the health management they are being offered [8]. Patients with low health literacy find managing long-term conditions more difficult [4]. For example, a lack of health-related education may affect a patient’s ability to make informed decisions and communicate information about their illness, thus contributing to the difficulty of managing chronic conditions and associated persistent symptoms such as pain [4, 9]. This warrants further investigation into effective ways to deliver pain-related health literacy to patients with persistent pain.

Virtual Reality (VR) may act as a suitable tool for the provision of health literacy and has been proven to be an effective learning tool for patients [10]. VR is a computer-simulated experience which immerses the user in a generated world often via the use of a head-mounted display to provide visual and audio stimulus [11]. VR engages its users by immersing them into an artificial environment and its application in healthcare has shown promise for its potential to help patients manage their pain [12]. It can also facilitate in-depth learning of educational materials with potential in the healthcare setting [13]. This immersive technology has been utilised in multiple applications such as distraction during medical procedures [11] and providing graded exposure therapies for anxiety and stress related disorders [14, 15]. Many reviews have analysed the use of VR and its effectiveness as an educational tool within the pre-surgical setting [16], mental illness [17], dementia patients [13] and patients with both acute and chronic conditions [18]. However, there is much less focus on the possibilities for virtual reality to deliver characteristics of pain related health literacy to patients with persistent pain. This paper describes a protocol for carrying out a scoping review aiming to highlight research gaps, strengths and limitations for the use of VR to promote pain related health literacy in patients with persistent pain.

**Methods**

This paper is a protocol for a scoping review of literature reporting the use of VR for pain related health literacy in people with persistent pain. The review will be guided by the methodological framework proposed by Arksey & O’Malley [19] and will include the following six steps: (1) identification of the research question, (2) identification of relevant studies, (3) study selection, (4) data extraction, (5) collating, summarising and reporting the results and (6) consultation with public/experts. Scoping reviews address exploratory research questions aimed at mapping key concepts, types of evidence and gaps within research [20]. Using this form of knowledge synthesis allows for broad exploration of literature to map key concepts, patterns and gaps in research in a defined field [19]. Although scoping reviews are used to describe extensive amounts of knowledge from multiple types of sources, they do not typically require critical appraisal of individual studies [20], thus the studies included in this review will not undergo formal critical appraisal. The results will be reported in accordance with the Preferred Reporting Items for Systematic Review and Meta-Analysis extension for Scoping Reviews (PRISMA-ScR) statement [20] found in Supplementary Material 1.

Table 1: Concepts of research

Virtual Reality	A computer-simulated experience which immerses the user in a generated world often via the use of a head-mounted display to provide visual and audio stimulus. [10]
Patient Education	Information that helps patients learn and develop health-related competencies along-side helping them adapt behaviours leading to the improvement of health.[3]
Health Literacy	Degree to which an individual has the capacity to obtain, communicate, process, and understand basic health information and services to make appropriate health decisions.

*Stage 1: Identifying the research question*

The review will aim to establish and present a comprehensive overview of existing research on the use of VR as a tool to promote pain related health literacy in patients with persistent pain. By exploring the use of this method of educational delivery in pain management, this review seeks to establish further

understanding of how VR is currently being implemented and potentially highlight not only areas in which its application has been scarce, but also map the situational context in which it has been applied. This information will then be useful for researchers to create future strategies for the development and implementation of VR education to improve pain related health literacy in patients with persistent pain. To address the objectives of this review, the primary research question is “What research has been conducted exploring the use VR to improve pain related health literacy in patients with persistent pain?”. Within our review, several sub-questions will also be addressed: (i) What are the educational characteristics of VR interventions delivered to patients with persistent pain? (ii) What aspects of health literacy are being addressed using VR-based education for patients with persistent pain? (iii) What measures are being used to assess the benefits of educational interventions? (iv) What types of intervention is education being provided in conjunction with for patients with persistent pain? Key concepts within our research questions can be found in Table 1.

*Stage 2: Identification of relevant studies.*

To answer the research question, we will conduct a systematic search of several electronic databases: CINAHL, PubMed, Embase, PsycInfo. These databases were selected based on the requirement to identify relevant literature inclusive of various experimental designs (randomized and non-randomized controlled trials, experimental and quasi-experimental), alongside ensuring the search covers multiple fields of healthcare and related cross-functional disciplines. We will use a comprehensive search strategy that (a) uses search terms (keywords and/or subject headings) that relate to key concepts defined in Table 1, (b) combines search terms within a concept with Boolean terms ‘AND’, ‘OR’ or ‘NEAR’ and (c) is adapted to the syntax used by each database. In databases where permitted, subject terms will also be exploded (‘exp/’) enabling the search to capture all related search topics under a certain term. We will collaborate with an expert librarian to develop the search strategy. We present a sample search strategy for Embase in Table 2. We will also supplement our search of electronic databases with snowball sampling [21]. This will include backwards citation searching [22] which involves exporting references of the included literature into our reference management software and repeating the abstract and

full-text review process. To aid in the identification of the characteristics of education within the literature, authors may be contacted to gain further information about the educational content provided in the intervention if required.

Table 2: Example search strategy for Embase.

#	
1	exp virtual reality/
2	computer interface/
3	exp head-mounted display/
4	(Virtual reality or immers* reality or computer assisted instruction or user computer interface or head mounted display or headmounted display or HMD or VR or smart glasses or smartglasses or head worn display or headworn display or head-worn display or HWD).mp.
5	1 or 2 or 3 or 4
6	exp health education/
7	ehealth literacy/
8	education/
9	virtual learning environment/
10	exp therapy/
11	(promot* or communication or comprehension or attitude* or aware* or belief* or knowledge or behavio#r or understand or litera* or education).mp.
12	6 or 7 or 8 or 9 or 10 or 11
13	exp pain/
14	(pain adj5 (Persistent or chronic or longterm or long-term or long term)).mp.
15	13 or 14
16	5 and 12 and 15

*Inclusion / Exclusion Criteria*

The research included within this review will be focused on VR based interventions for patients with persistent pain. Due to the variability of outcomes reported in the literature for patients with persistent pain and their validity to the intended aims of this review, the inclusion criteria will not only contain research reporting persistent pain as an outcome, but also those which do not. Patients included within the literature will be determined to have persistent pain if they report to have (a) a chronic condition (as defined by the International Statistical Classification of Diseases and Related Health Problems (ICD-11)) and the literature either (a) reports pain is as an explicit outcome or (b) reports pain as part of a subjects’

baseline measure. This will allow expansive inclusion of varying pathologies and research which although may or may not report pain as an outcome, will focus on addressing health literacy principles in patients with persistent pain. Inclusion/exclusion criteria is listed in Table 3. Persistent pain is defined as persistent or

recurring pain lasting longer than 3 months [23]. No date restriction shall be used within the searches however, due to limitations in language translation resources, all included studies will be written in the English language.

Table 3: Inclusion / Exclusion Criteria.

	Inclusion	Exclusion
Population	Patients which reported persistent pain at baseline or as an outcome	
Intervention	Interventions delivered via virtual reality	Content which doesn't include education as part or in whole, aimed at addressing pain-related health literacy
Outcomes	Any outcome associated with pain-related health literacy. Including but not limited to: Knowledge, Understanding, Self-management, Empowerment.	
Study Design	Studies which include primary data collection	Grey literature and other studies (i.e. Systematic/narrative reviews, abstracts, conference papers)
Language and Other	English language	Studies where full-text is not obtainable.

### Stage 3: Study Selection

In collaboration with an expert librarian, we shall refine and implement the search strategy in the aforementioned databases to identify relevant literature. All identified studies will be exported into EndNote 20 [24]. After combining all references, duplicates will then be removed and remaining citations will be exported into Rayyan for screening. Rayyan is an online application to support the production and management of systematic reviews [25]. Each stage of the review will be conducted by at least two reviewers independently, then decisions of inclusion/exclusion will be compared and discussed with the aim to achieve a consensus. The screening process will begin with independently scanning the title and abstract of the included references against the inclusion criteria as seen in Table 3. Reviewers will then obtain full-text versions of the remaining articles which will then be analysed with decisions reported and providing reasons for any articles which are excluded. Any disagreements will be discussed with the aim to achieve consensus. If this becomes unachievable, an additional reviewer will be consulted to determine its inclusion. We will then begin snowball sampling from the included full-text articles. Reference lists from all included articles will then be screened for further relevant literature. The newly identified research from

snowball sampling will then be added to the original collection of literature to form the final data set. PRISMA flow diagram (Supplementary 2) shows the flow of information throughout the systematic search.

### Stage 4: Extracting the data

A data extraction tool (Supplementary 3), developed by the research team, will be used to extract information from the included articles such as study details (author, year, type, study objectives) and population details (number of participants, age range, sex, pathology). The interventions within the literature will then be mapped using a data collection tool based on the Template for Intervention Description and Replication (TIDieR) [26] (Supplementary 5). This will be used to extract data such as descriptions, goals, materials, locations and times of the interventions delivered. Data extraction will be piloted by at least 2 reviewers on a sample of a minimum of 3 full-text articles to highlight differences and to create a consensus on extraction. Then information from the remaining articles will be extracted by reviewers independently. Contrasting opinions will be discussed and conflicts addressed by an additional reviewer, if required.

### Stage 5: Collating, summarising and reporting the results.

Our primary objective is to provide a comprehensive overview of the research on the use of VR in the promotion of health literacy in patients with persistent pain. Descriptive statistics, using simple quantitative

analysis, will be presented to illustrate frequencies and information about data within the search findings (e.g., article and population characteristics).

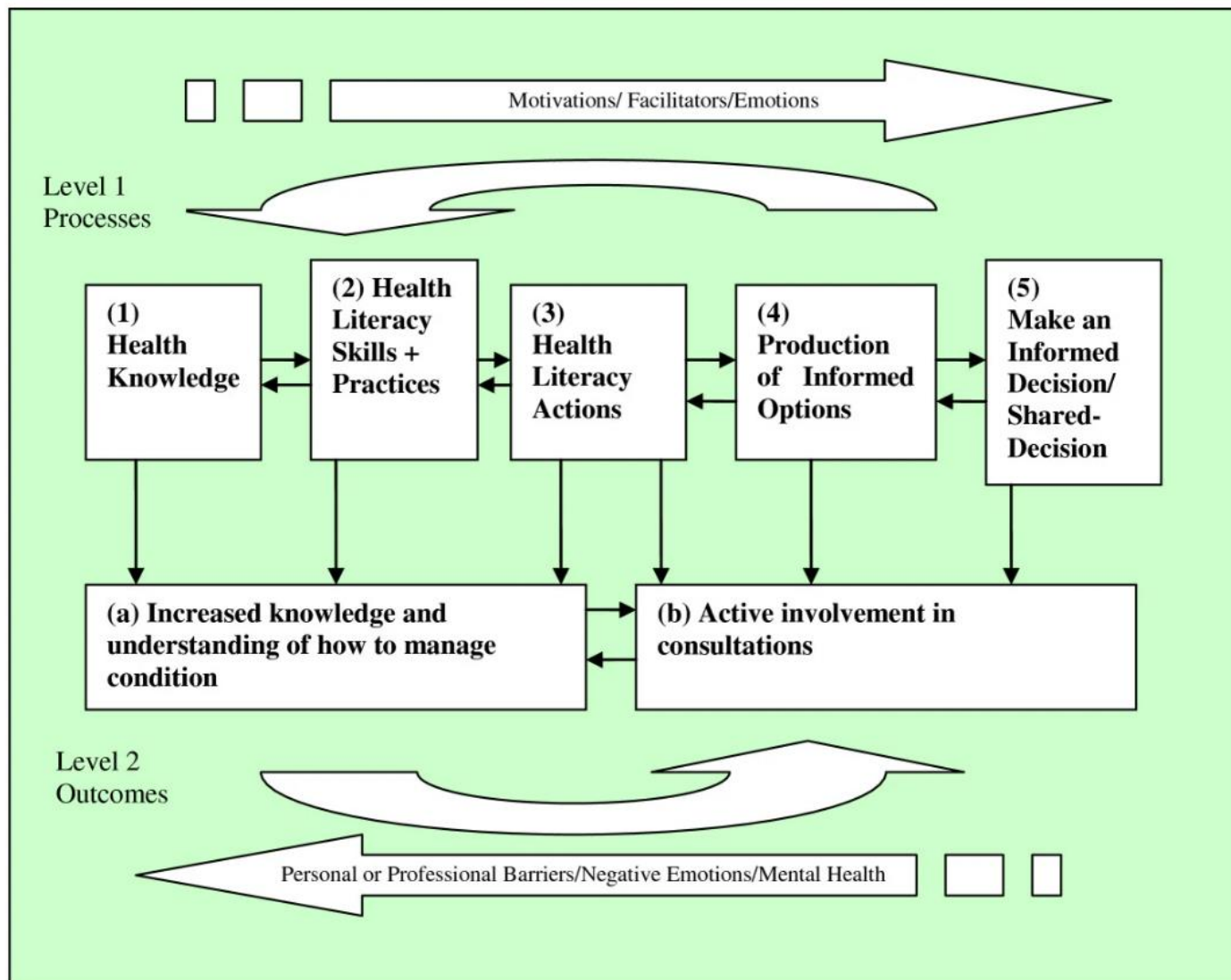


Figure 1: Health Literacy Pathway Model [27]

Extracted data will then undergo independent thematic analysis to present characteristics and common themes within the interventions via categorisation of applied theory.

To categorise the literature, we will use the Health Literacy Pathway Model (HLPM) [27] (Figure 1) to identify principles aimed at addressing health literacy within the interventions. The HLPM was developed to describe how literacy develops along a trajectory that enables patients to seek, engage with and act on health information to manage their health long-term. Health Literacy processes are represented in the five stages of the model: building health knowledge, (2) developing health literacy skills and practices, (3) displaying health literacy actions, (4) the production of informed options

and (5) making an informed decision. Themes, sub themes and categories (seen in Table 4) adapted from the model, will be used as a framework to analyse data, highlight associations and define concepts within health literacy. Details within the literature describing educational elements of the interventions shall be mapped and categorised against these themes to represent health literacy characteristics within the interventions. We shall aim to address the research question with the intervention details as provided in the article full-text. If we are unable to achieve these aims, additional information about the intervention may be requested from the author. If contacting the author for additional information proves unsuccessful, the information gained from the study will be limited to what is provided in full-text. This process will enable

the presentation of patterns, similarities, gaps and opportunities based these criteria to provide a descriptive analysis of health literacy-related characteristics of the interventions. These themes will

then, alongside the descriptive analysis, will be presented in the results section.

Table 4: Themes, sub themes and categories from the Health Literacy Pathway Model

1. Health Knowledge	Knowledge of health in general and own health conditions	Knowledge of science and health  Knowledge of condition Knowledge of health service Knowledge of patients' rights
2. Self-management skills	Managing medication  Self-monitoring Managing treatment plan	Organising medications and managing a medication regime (taking medication)  Self-monitoring exercise and pain levels Managing a plan with persistent pain
3. Active information seeking and use	Engaging with written Materials Accessing online information Using social media Engaging with research Critical appraisal of information and considering it within context	Reading medical reference books, dictionaries, leaflets, newspaper reports Health related websites and organisations  Posting messages on discussion boards, web chat with other patients, using video sharing websites to view procedures Reading research papers Assessing the reliability and quality of information and the source of information, assessing relevance of the information in context of own concerns
4. Actively communicating with health professionals	Preparation  Exchanging information  Expressing needs and Concerns  Conveying information  Managing communication	Keeping a record of symptoms, preparing questions to ask in consultations Bringing information to a consultation, discussing results, medications Asking to change a medication or plan, talking about problems, communicating preferences, asking for a referral to another service, asking for monitoring devices, asking to see results. Reiterating health information given by one health professional to another Managing communication with multiple health professionals
5. Seeking and negotiating treatment options	Seeking treatment options Negotiating medication or treatment	Seeking alternative treatment options online Asking doctor to try a new medication or alternative treatment method
6. Decision making	Desire for involvement Opportunities for involvement	Making informed decisions about treatment preferences Taking part in shared decision making
7. Influences on health literacy	Negative influences (personal and professional barriers).  Positive influences	<b>Patients:</b> poor acceptance, compliance, reliance on health professionals for information, emotional barriers (shock, fear, anxiety), avoidance of information <b>Health professionals:</b> poor communication styles, conflicting information

	(personal and professional motivators, facilitators)	<p><b>Patients:</b> manage emotions (reducing fear), make sense of symptoms</p> <p><b>Friends and Family:</b> distributed health literacy skills</p> <p><b>Health professionals:</b> GP support information seeking, pharmacy support with understanding of medications, nurse support with self-management, access to services and mediate communications with doctors</p>
8. Health literacy outcomes	<p>Develop knowledge, skills, understanding and coping</p> <p>Active involvement in of information consultations</p>	

### *Stage 6: Consultation with public / experts*

This step in the research contributes to methodological rigor and should be considered a required component [28]. For this stage, we shall use preliminary results from stage 5 as a foundation to inform a consultation with individuals representing the population, healthcare professionals and researchers within the field of persistent pain via conference presentation. We aim to collect information regarding, but not limited to, aspects of the research such as study purpose, research design and plans for dissemination. This data will then be presented to the research team where suggestions will be discussed. Any possible modifications of methodologies, concepts or research aims to accommodate suggestions will then be reviewed and implemented if consensus is achieved. Any modifications will be presented in the final review.

### **Preliminary Findings**

Findings from preliminary data provide initial information showing that the majority of health literacy-based characteristics in patient education are aimed to address Stage 1 of the Health Literacy Pathway Model. A large portion of the interventions aim to develop health knowledge, that is, a person's basic knowledge about their specific pathology. There is little delivery focusing on other aspects of health literacy such as developing skills (problem solving, decision making, self-monitoring), promoting health literacy actions (effective communication) and critical analysis of health information (consideration of treatment options). This shows that future research for the use of VR to promote health literacy in patients with persistent pain should focus, not only on the delivery of health knowledge, but also address key

dimensions of patient critical health literacy such as developing advanced cognitive skills and applying health-based information. The unique ability for VR to replicate immersive healthcare experiences might prove useful when aiming to develop a patient's ability to translate their knowledge of applying skills such as critical knowledge synthesis to 'real world' settings.

### **Summary**

To the best of our knowledge, this scoping review will be first to comprehensively provide information regarding the use of virtual reality-based education to promote health literacy in patients with persistent pain. This protocol presents a comprehensive methodology to address the aforementioned research aims. Results from this study will create direction for future research by highlighting potential commonalities, gaps and opportunities within education delivered via VR to address health literacy in persistent pain patients.

### **Limitations**

The protocol outlined above is aimed to be comprehensive and extensive in its search methodology using framework directed by Arksey and O'Malley. Although aiming to develop a comprehensive search strategy alongside researchers within the field and expert librarians, we cannot conclude that a common limitation in retrieving all available literature will be avoided. Additionally, the inability to include literature which is not written in English may have limited our findings. It is within the research aims to assess literature which is both relevant and of high-quality. Though reflecting our choice to exclude grey literature, it is understood that

the exclusion of this source of information may impact our findings.

**Ethical Approval:** No ethical approval statement required.

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**Conflict of Interest:** None.

## References

1. Cara Marcus. Strategies for improving the quality of verbal patient and family education: a review of the literature and creation of the educate model. *Health Psychology and Behavioral Medicine: An Open Access Journal*, 2(1):482–495, 2014.
2. J Guilbert. Therapeutic patient education. *Education for Health*, 13(3):419–419, 2000.
3. World Health Organization et al. Therapeutic patient education: continuing education programmes for health care providers in the field of prevention of chronic diseases: report of a who working group. Technical report, World Health Organization. Regional Office for Europe, 1998.
4. Harriet Wittink and Janke Oosterhaven. Patient education and health literacy. *Musculoskeletal Science and Practice*, 38:120–127, 2018.
5. Overview: Chronic pain (primary and secondary) in over 16s: Assessment of all chronic pain and management of chronic primary pain: Guidance.
6. Kristine Sørensen, Stephan Van den Broucke, James Fullam, Gerardine Doyle, Jürgen Pelikan, Zofia Slonska, and Helmut Brand. Health literacy and public health: a systematic review and integration of definitions and models. *BMC public health*, 12(1):1–13, 2012.
7. Don Nutbeam. Health literacy as a public health goal: a challenge for contemporary health education and communication strategies into the 21st century. *Health promotion international*, 15(3):259–267, 2000.
8. Karthik Adapa, Saumya Jain, Richa Kanwar, Tanzila Zaman, Trusha Taneja, Jennifer Walker, and Lukasz Mazur. Augmented reality in patient education and health literacy: a scoping review protocol. *BMJ open*, 10(9):e038416, 2020.
9. Mark Williams, Terry Davis, Ruth Parker and Barry Weiss. The Role of Health Literacy in Patient-Physician Communication. *Family Medicine-Kansas City*, 34(5):383-389, 2002.
10. Vivek Pandrangi, Brandon Gaston, Nital Appelbaum, Francisco Albuquerque, Mark Levy and Robert Larson. The Application of Virtual Reality in Patient Education. *Annals of Vascular Surgery*, 59:184-189, 2019.
11. Kevin M Malloy and Leonard S Milling. The effectiveness of virtual reality distraction for pain reduction: a systematic review. *Clinical psychology review*, 30(8):1011–1018, 2010.
12. Naseem Ahmadpour, Hayden Randall, Harsham Choksi, Antony Gao, Christopher Vaughan, and Philip Poronnik. Virtual reality interventions for acute and chronic pain management. *The international journal of biochemistry & cell biology*, 114:105568, 2019.
13. Miyae Yamakawa, Huei-Chuan Sung, and Patraporn Tungpunkom. Virtual reality education for dementia care: a scoping review protocol. *JBI Evidence Synthesis*, 18(9):2075–2081, 2020.
14. Brian Mallari, Emily K Spaeth, Henry Goh, and Benjamin S Boyd. Virtual reality as an analgesic for acute and chronic pain in adults: a systematic review and meta-analysis. *Journal of pain research*, 12:2053, 2019.
15. Theodore Oing, Julie Prescott, et al. Implementations of virtual reality for anxiety-related disorders: systematic review. *JMIR serious games*, 6(4):e10965, 2018.
16. Youngjun Kim, Hannah Kim, and Yong Oock Kim. Virtual reality and augmented reality in plastic surgery: a review. *Archives of plastic surgery*, 44(3):179, 2017.
17. Jinlong Wu, Yi Sun, Gongwei Zhang, Zhenhui Zhou, and Zhanbing Ren. Virtual reality-assisted cognitive behavioral therapy for anxiety disorders: A systematic review and meta-analysis. *Frontiers in Psychiatry*, 12, 2021.
18. Shannen R van der Kruk, Rob Zielinski, Hamish MacDougall, Donna Hughes-Barton, and Kate M Gunn. Virtual reality as a patient education tool in healthcare: A scoping review. *Patient Education and Coun-seling*, 2022.
19. Hilary Arksey and Lisa O’Malley. Scoping studies: towards a methodological framework. *International journal of social research methodology*, 8(1):19–32, 2005.

20. Andrea C Tricco, Erin Lillie, Wasifa Zarin, Kelly K O'Brien, Heather Colquhoun, Danielle Levac, David Moher, Micah DJ Peters, Tanya Horsley, Laura Weeks, et al. Prisma extension for scoping reviews (prisma-scr): checklist and explanation. *Annals of internal medicine*, 169(7):467–473, 2018.
21. Laura J Damschroder, David C Aron, Rosalind E Keith, Susan R Kirsh, Jeffery A Alexander, and Julie C Lowery. Fostering implementation of health services research findings into practice: a consolidated frame-work for advancing implementation science. *Implementation science*, 4(1):1–15, 2009.
22. Simon Briscoe, Alison Bethel, and Morwenna Rogers. Conduct and reporting of citation searching in cochrane systematic reviews: A cross-sectional study. *Research Synthesis Methods*, 11(2):169–180, 2020.
23. Rolf-Detlef Treede, Winfried Rief, Antonia Barke, Qasim Aziz, Michael I Bennett, Rafael Benoliel, Milton Cohen, Stefan Evers, Nanna B Finnerup, Michael B First, et al. A classification of chronic pain for icd-11. *Pain*, 156(6):1003, 2015.
24. EndNote 20. The best reference management tool. <https://www.https://endnote.com>. Accessed: 2022-04-12.
25. Rayyan. Intelligent systematic review. <https://www.rayyan.ai/>. Accessed: 2022-03-31.
26. Tammy C Hoffmann, Paul P Glasziou, Isabelle Boutron, Ruairidh Milne, Rafael Perera, David Moher, Douglas G Altman, Virginia Barbour, Helen Macdonald, Marie Johnston, et al. Better reporting of interventions: template for intervention description and replication (tidier) checklist and guide. *Bmj*, 348, 2014.
27. Michelle Edwards, Fiona Wood, Myfanwy Davies, and Adrian Edwards. The development of health literacy in patients with a long-term health condition: the health literacy pathway model. *BMC public health*, 12(1):1–15, 2012.
28. Danielle Levac, Heather Colquhoun, and Kelly K O'Brien. Scoping studies: advancing the methodology. *Implementation science*, 5(1):1–9, 2010.

Supplementary information:

<https://ppa.csp.org.uk/content/pain-rehabilitation>