

June 21, 2021

In response to “Patient and public involvement in orthopedics research: a systematic review”

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Dear Editor,

Owyang and colleagues’ review of patient and public involvement (PPI) in orthopedic research provides a glimpse into the current situation and development of PPI in random clinical trials (RCT)(1). As researchers who are also interested in this topic, we hope to share our experience with the authors to improve the quality of studies in this field.

PPI has received more attention in recent years. Although, as mentioned, it became a requirement for funding applications in 2013 in the UK, PPI had been proposed for decades. In 1996 the UK National Institute for Health Research (NIHR) established the INVOLVE program (2) to promote and support PPI, and by 2008 the number of PPI-related publications found on Medline had doubled.

Consequently, limiting the literature search on PPI-related articles to the timespan between 2013 and 2020 undoubtedly leads to the omission of related studies, which may introduce evidence selection bias. Also, limiting the search to the author’s choice of journals obscures the total number of PPI-related articles published. The ten journals with the highest impact factors are undoubtedly representative of the development of the orthopedic field. Still, not all authors have the opportunity to publish articles in such journals. The core concept of systematic review is to provide a comprehensive overview on a topic through a systematic approach, which is essential to “identifying all the potential evidences,” objectively selecting evidence, critically assessing evidence, and synthesizing evidence (3). Therefore, the current

review can be more appropriately called a “scoping review” but not a systematic review. In addition, there are 12 journals listed by the author in the “Materials and Methods” section, including a duplication of Arthroscopy.

Furthermore, the adopted searching strategy in the appendix may need to be reorganized and revised. The hierarchical and logical relationships among the searching strings are not apparent. For example, in the MEDLINE search, the author connected “orthopedic” and “patient/public participation” with “OR”, which undoubtedly decreased the specificity of the final search string and brought more false positives records.

Meanwhile, there are many errors and omissions in the search strings, such as line #14 #15 in the Cochrane database search and line #20, #21, and #22 in the MEDLINE database search.

Further, in Appendix 2, we recommend using a standard PRISMA diagram to present the process of document inclusion and exclusion; inappropriate lines and arrow positions may puzzle readers.

Although the definition from the NIHR INVOLVE group is the basis of many related studies, directly using this definition of PPI as the inclusionary criteria may reduce the number of included articles.

Therefore, we suggest using the inclusionary criteria from peer studies(4) as the inclusion criteria of the literature review. Moreover, as INVOLVE doesn't exist anymore and was taken over by NIHR Centre for Engagement and Dissemination in April 2020, an update on the concept of PPI is more necessary now than ever before (2).

In the two included studies, Thienpont and colleagues tested the analgesic effect of cryotherapy after knee replacement surgery (5). The PPI in this study is defined as “The surgeon, physiotherapist, and patients completed the study protocol,” leaving the extent of PPI, the specific stages involved, the benefits, and the impact on clinical practice unclear. The authors of the current review are also aware of this point. This is reflected by the blanks in the table of the PPI quality assessment and the PPI reporting quality assessment; the PPI method is “unknown.” We believe that such a vague report on performed PPI should not be used as the reason for inclusion in this study, and it may increase the bias and overestimate the numbers. As aforementioned, we suggest that more attention should be paid to other journals in this field. There are more clinical research and practical examples that conform to the basic principles of PPI in RCT (6).

In current RCTs, PPI is more than a grant application requirement; it is the democratic right of patients who may be affected and the public who paid for the research to participate in and improve the quality of research by identifying appropriate research priorities, research design, and results dissemination. It has been suggested that clinical trials are particularly likely to benefit from PPI (7). Besides the studies in the orthopedic RCTs, there are more meaningful examples of PPI, which will eventually benefit the RCTs.

Costa et al. performed a series of formal qualitative interviews with hip fracture patients and their carers (NIHR RP-DG-1210-10022). The patients and their carers were then involved in the consensus meeting where the final UK hip fracture ‘core outcome set’ was agreed upon. Finally, the World Hip Trauma Evaluation (WHiTE) cohort study and the clinical trials embedded in this cohort were based on this (8).

We appreciate that the Owyang and colleagues' study has called the researchers' attention to PPI within

and outside the field. However, in a systematic review, it is crucial for authors and readers of academic publications to realize these sources of evident selection bias because they conduct and read systematic reviews, and their findings will be incorporated into clinical practice and policymaking. In terms of methodology, authors of a systematic review should systematically find potential evidence, minimize the bias, and evaluate the risk of bias in the included studies to the greatest extent possible, rather than introduce evidence selection bias arbitrarily. We hope that the quality of related research can be further improved through continuous mutual exchanges.

Disclaimer: e-Letters represent the opinions of the individual authors and are not copy-edited or verified by JBJS.

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Conflict of Interest: None Declared