

PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Exploring the personal burden of shoulder pain among younger people in Australia: Protocol for a multi-centre cohort study
AUTHORS	Ackerman, Ilana; Page, Richard; Fotis, Kathy; Schoch, Peter; Broughton, Nigel; Brennan, Sharon; Bucknill, Andrew; Cross, Emily

VERSION 1 – REVIEW

REVIEWER	ALEJANDRO LUQUE-SUAREZ UNIVERSITY OF MALAGA, SPAIN
REVIEW RETURNED	25-Mar-2018

GENERAL COMMENTS	<p>Dear Editor of BMJ Open:</p> <p>Thank you very much for giving me the possibility of reviewing this article, entitled: "Exploring the personal burden of shoulder pain among younger people: Protocol for a multi-centre cohort study. "</p> <p>The article has been written with scientific rigour. The introduction moves the reader to the purposes of the study. The method section provides sufficient information to duplicate the study. There was a good description of each PRO (patient reported outcome) that will be used in the assessment stage. Sample size calculation and data analysis are adequately described.</p> <p>I think this article could be of interest for readers of BJM Open. I commend the authors for the elaboration of this manuscript.</p> <p>My recommendation is to ACCEPT this article for publication.</p>
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REVIEWER	Dilip R Patel Western Michigan University Homer Stryker MD School of Medicine, USA
REVIEW RETURNED	15-Apr-2018

GENERAL COMMENTS	<p>A well thought out study protocol. Participant age range 20-55 years may lend itself to wide variations in underlying causes for non-traumatic shoulder pain. In relatively younger population, generally, younger than 40, osteoarthritis, rotator cuff pathology or significant internal derangement are relatively less frequent. Because, the participants will be recruited from the orthopaedic outpatient clinics, this by design may exclude a large number of patients with shoulder pain seen in general practice or primary care practice settings. Not all such patients are likely to be referred to orthopaedic clinics.</p>
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VERSION 1 – AUTHOR RESPONSE

Reviewer 1

We thank this reviewer for their positive feedback regarding our study protocol. There are no comments to address for this reviewer.

Reviewer 2

1. **Reviewer comment: “A well thought out study protocol. Participant age range 20-55 years may lend itself to wide variations in underlying causes for non-traumatic shoulder pain. In relatively younger population, generally, younger than 40, osteoarthritis, rotator cuff pathology or significant internal derangement are relatively less frequent.”**

Author response: We appreciate this feedback and concur with the reviewer that shoulder diagnoses may vary among younger and older study participants. It was not our intention to examine shoulder outcomes according to diagnosis in this study but rather to provide a snapshot of the impacts of a range of conditions that are associated with shoulder pain. In this way, we have kept the inclusion criterion around shoulder diagnoses deliberately broad. To characterise the study sample, we will be sure to describe the type and frequency of shoulder conditions within the Results section of any manuscript that reports the study findings.

Author action: The following sentences have now been added to the Discussion:

“With broad eligibility criteria the study has been designed to capture a range of painful shoulder conditions affecting people of working age, although the specific diagnoses may vary by age within the cohort (for example, internal derangement may be more common among participants aged 20-30 years and rotator cuff pathology and osteoarthritis may be more common towards the upper age limit of 55 years). We intend to report the type and frequency of shoulder diagnoses in order to fully characterise the study sample.” (page 13)

2. **Reviewer comment: “Because, the participants will be recruited from the orthopaedic outpatient clinics, this by design may exclude a large number of patients with shoulder pain seen in general practice or primary care practice settings. Not all such patients are likely to be referred to orthopaedic clinics.”**

Author response: We agree that our recruitment strategy will exclude patients with shoulder pain who are only seen in general practice or other primary care settings. However, in Australia patients who have more than 6 weeks’ of shoulder pain would be referred for specialist opinion and management. We have added a sentence to the Discussion to acknowledge that patients seen only in primary care settings will not be captured in this study.

Author action: We have added this limitation to the Strengths and limitations bullet points (as outlined earlier) and have also added the following sentences to the Limitations:

“This study focuses on orthopaedic outpatient clinic settings and we recognise that patients seen only in primary care settings will not be captured. However, in Australia patients who have ongoing shoulder pain would likely be referred for specialist opinion and management.” (page 14)

Other changes

As requested by the journal, we have also added a statement on patient and public involvement (page 12) and revised the contributorship statement to provide further detail (page 21)

VERSION 2 – REVIEW

REVIEWER	Dilip R. Patel MD Professor and Chairman, Department of Pediatric and Adolescent Medicine, Pediatric Sports Medicine, Western Michigan University Homer Stryker MD School of Medicine, Kalamazoo, Michigan, United States
REVIEW RETURNED	24-May-2018
GENERAL COMMENTS	This is a well done study. Although the hypothesis is not novel, this study makes an important contribution to the literature in terms of its application to a different set of population. Because there are inherent epidemiological differences between populations it is important to study similar hypothesis in different populations.