

## Appendix A: Consolidated criteria for reporting qualitative research (COREQ) Checklist

No. Item	Guide questions/description	Notes
<b>Domain 1: Research team and reflexivity</b>		
<b><i>Personal Characteristics</i></b>		
1. Interviewer/facilitator	Which author/s conducted the interview or focus group?	Interviews were conducted by JA
2. Credentials	What were the researcher's credentials? E.g. PhD, MD	JA: PhD (Public Health)
3. Occupation	What was their occupation at the time of the study?	At the time of the interviews, JA was a postdoctoral research fellow
4. Gender	Was the researcher male or female?	The researcher was female.
5. Experience and training	What experience or training did the researcher have?	JA is a behavioural scientist with expertise and training in qualitative methods and behaviour change models (e.g. TDF, HAPA model, BCT).
<b><i>Relationship with participants</i></b>		
6. Relationship established	Was a relationship established prior to study commencement?	None of the study team had any direct contact with participants prior to study commencement.
7. Participant knowledge of the interviewer	What did the participants know about the researcher? e.g. personal goals, reasons for doing the research	Participants were informed that the researcher was interested in interviewing people with low back pain about exercise programs for low back pain prevention. They were also informed that that findings from this study would help design future low back pain prevention programs.
8. Interviewer characteristics	What characteristics were reported about the interviewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic	JA is a public health/behavioural scientist.
<b>Domain 2: Study design</b>		
<b><i>Theoretical framework</i></b>		
9. Methodological orientation and Theory	What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	Methods in this study were based on framework analysis. We also applied a contextualist/critical realist approach to analysis, which acknowledges that meaning and knowledge are understood as subjective and contextual.
<b><i>Participant selection</i></b>		
10. Sampling	How were participants selected? e.g. purposive, convenience, consecutive, snowball	Participants were purposively sampled from an initial pool of 50 expressions of interest, to ensure a diverse range of ages,

		gender, education, and with varied experiences of low back pain and physical activity levels
11. Method of approach	How were participants approached? e.g. face-to-face, telephone, mail, email	Participants invited to interview were approached by email or phone.
12. Sample size	How many participants were in the study?	There were 26 participants in the study.
13. Non-participation	How many people refused to participate or dropped out? Reasons?	Two participants who had expressed an interest in the study decided not to participate when contacted, but did not give a reason.
<b>Setting</b>		
14. Setting of data collection	Where was the data collected? e.g. home, clinic, workplace	Interviews were conducted online via Zoom. Most people were at home during their interview, though some were at work or in a stationary car.
15. Presence of non-participants	Was anyone else present besides the participants and researchers?	Only the participant and researcher were present at the time of the interview.
16. Description of sample	What are the important characteristics of the sample? e.g. demographic data, date	Table 1. Interviews were conducted between 8th December 2020 and 4th March, 2021
<b>Data collection</b>		
17. Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested?	Interviews were semi-structured and roughly followed the interview schedule shown in Appendix C. These questions were developed in collaboration with physiotherapists MH and CH, and chiropractor HZ (study authors), and JA and KM (public health/behavioural scientists). The interview guide was pilot tested with 4 people with low back pain.
18. Repeat interviews	Were repeat inter views carried out? If yes, how many?	No repeat interviews were carried out.
19. Audio/visual recording	Did the research use audio or visual recording to collect the data?	All interviews were audio-recorded and transcribed verbatim by an independent transcription service.
20. Field notes	Were field notes made during and/or after the interview or focus group?	General impressions of the interviews, reflections, and other field notes were collected.
21. Duration	What was the duration of the inter views or focus group?	Interviews lasted an average 34.1 minutes.
22. Data saturation	Was data saturation discussed?	After 26 interviews, authors deemed that this sample size generated sufficiently rich and in-depth data to provide meaningful insight that would address the study's aims.

		See: Braun V, Clarke V. To saturate or not to saturate? Questioning data saturation as a useful concept for thematic analysis and sample-size rationales. Qualitative Research in Sport, Exercise and Health 2021;13(2):201-216.
23. Transcripts returned	Were transcripts returned to participants for comment and/or correction?	Transcripts were not returned to participants for comment and/or correction.
<b>Domain 3: analysis and findings</b>		
<b>Data analysis</b>		
24. Number of data coders	How many coders coded the data?	A subset of data (3 transcripts) was indexed by three researchers (JA, HJ, MH) to ensure consistency in coding, with any differences discussed and reassessed. JA coded the remaining transcripts.
25. Description of coding tree	Did authors provide a description of the coding tree?	The themes and subthemes represent the 'coding tree' used in Framework analysis
26. Derivation of themes	Were themes identified in advance or derived from the data?	Derived from the data
27. Software	What software, if applicable, was used to manage the data	Excel and Microsoft word
28. Participant checking reporting	Did participants provide feedback on the findings?	No
28. Quotations presented	Were participant quotations presented to illustrate themes/findings? Was each quotation identified?	Yes, and accompanied by participant characteristics
30. Data and findings consistent	Was there consistency between the data presented and the findings?	Yes
31. Clarity of major themes	Were major themes clearly presented in the findings?	Yes
32. Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes?	Yes

Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. International Journal for Quality in Health Care. 2007;19(6):349-57. doi: 10.1093/intqhc/mzm042.

## Appendix B: Facebook community post (study advertisement)

**Exercise programs for people with low back pain: Interview study**December 3, 2020 · 🌐...

Researchers at the University of Sydney are interviewing people with low back pain! This will help us develop an exercise program that is tailored for people with low back pain. Learn more about the study: <https://sydneypublichealth.au1.qualtrics.com/jfe/form/...> **See More**



# **Low back pain study**

## **We want to hear from you!**

**Researchers from the University of Sydney are interviewing people with low back pain.**

**We want to know what would be important to you in exercise programs to prevent low back pain.**

**THE UNIVERSITY OF SYDNEY****ANZBACK**  
AUSTRALIA & NEW ZEALAND  
LOW BACK PAIN RESEARCH NETWORK  
NIHMRRC CENTRE OF RESEARCH EXCELLENCE

**Exercise programs for people with low back pain: Interview study**  
CommunityLearn More

## Appendix C: Interview schedule

1. Have you been given any advice from health professionals about exercising to prevent or reduce low back pain?
2. How did you feel about this advice?...Thinking about what happens when your low back pain [comes back/flares up], how do you feel about this advice?
3. Thinking about any exercise programs to prevent or reduce low back pain that you've taken part in recently...what was the best or most useful part about the program? What was worst part?

If you had any [episodes/flareups] during the program(s), what worked well / not well?

4. Was there anything about the program(s) that helped you keep taking part in the sessions? Was there anything about the program(s) that made it hard to keep going or meant that you skipped some sessions? What do you think would help you keep attending an exercise program?
5. What would be most useful to you in a low back pain exercise program?
6. Aside from reducing pain or preventing pain, what would you most want to get out of an exercise program that aims to prevent or reduce low back pain?
7. What kind of exercise program to prevent or reduce low back pain would you be interested in? What is it about these aspects that appeals to you?

How would this program take into account [episodes/flareups]  
What is it about these aspects that appeals to you?

8. Can you describe your **thoughts and feelings** about exercise programs when you have a [flare-up/episode of back pain]?

What about your **thoughts and feelings** about exercise programs when you haven't [had any pain for a while/ had a flareup for a while]?

How could an exercise program help you with these thoughts and feelings?

9. Is there anything unappealing about using exercise programs to manage low back pain?
10. [if not yet answered] Are there any practical issues that might stop you from taking part in an exercise program
11. How important are the social aspects of an exercise program? What social benefits would you want to obtain from an exercise program for low back pain?
12. How would you want to organise your exercise program to prevent or reduce low back pain?

Does this change depending on your pain levels?

13. What advice would you offer to someone who wanted to start using an exercise program to reduce or prevent low back pain?
14. Anything else you'd like to add?

### **Examples of exercise programs to reduce or prevent future low back pain**

- Small-group exercises classes supervised by a physiotherapist
- Home exercises prescribed by a health professional
- Group exercise classes (e.g. dance, 'pump' class, cardio, aqua aerobics, aqua Zumba, boot camp, yoga, pilates)
- Social sport (e.g. football, netball, tennis)
- Unstructured exercise (e.g. walking groups, swimming, cycling)

### **Aspects of the program you might like to think about**

- How often you take part
- How long each session is
- Program duration and intensity (e.g. 1 weekly session over 6 weeks)
- Type of activity (e.g. weights, walking, swimming, dance)
- Cost
- Location
- Group vs individual classes
- Level of supervision (including in-person vs over the phone)
- Skills or fitness level required
- Your goals and what matters most to you (e.g. being able to go to work, spending time with family or friends, being able to carry out daily activities, reduced fear of recurrence or flareup)
- How the program fits in with your lifestyle or other priorities

## Appendix E: Participant characteristics

ID	Gender	Age group	Education	Health literacy *	Born overseas	Pain trajectory (visual pain trajectory questionnaire)	Pain rating scales (0-10; pain in previous week)				Activity levels (IPAQ short)
							Usual	Current	Worst	Lowest	
001	F	50 to 59	High school or less	Adequate	No	pain that goes up and down all the time, with episodes of severe back pain	6	6	10	2	low
002	F	40 to 49	Undergraduate degree or equivalent	Adequate	No	some back pain most of the time, and a few episodes of severe pain	2	2	4	2	high
003	M	50 to 59	Undergraduate degree or equivalent	Adequate	No	some back pain most of the time, and a few episodes of severe pain	4	3	4	1	high
004	M	60+	Undergraduate degree or equivalent	Adequate	Yes (Venezuela)	a few episodes of back pain, with mostly pain-free periods in between	7	7	7	7	high
005	M	Less than 30 years	Postgraduate degree or equivalent	Adequate	Yes (Nepal)	severe back pain all or nearly all of the time	9	9	10	1	high
006	F	40 to 49	Undergraduate degree or equivalent	Adequate	No	some back pain most of the time, and a few episodes of severe pain	9	7	10	5	moderate
007	F	Less than 30 years	Certificate or equivalent	Adequate	No	pain that goes up and down all the time, with episodes of severe back pain	8	6	10	4	high
008	F	Less than 30 years	Certificate or equivalent	Adequate	No	back pain that has improved gradually	5	7	9	4	low
009	F	60+	Undergraduate degree or equivalent	Adequate	No	a few episodes of back pain, with mostly pain-free periods in between	2	4	5	1	moderate
010	F	60+	Undergraduate degree or equivalent	Adequate	Yes (UK)	back pain that has got gradually worse	3	3	4	2	moderate
011	F	30 to 39	Undergraduate degree or equivalent	Adequate	No	some back pain most of the time, and a few episodes of severe pain	4	3	8	3	low
012	F	60+	Undergraduate degree or equivalent	Adequate	No	back pain that has got gradually worse	8	8	8	1	low
013	F	60+	Postgraduate degree or equivalent	Adequate	Yes (Holland)	some back pain most of the time, and a few episodes of severe pain	7	7	8	4	low
014	F	30 to 39	Certificate or equivalent	Adequate	No	pain that goes up and down all the time, with episodes of severe back pain	8	8	10	2	low
015	F	50 to 59	Postgraduate degree or equivalent	Adequate	No	pain that goes up and down all the time, with episodes of severe back pain	8	8	9	8	low
016	M	40 to 49	Certificate or equivalent	Adequate	No	severe back pain all or nearly all of the time	8	8	8	0	moderate
017	F	50 to 59	Certificate or equivalent	Adequate	No	some back pain most of the time, and a few episodes of severe pain	7	3	8	3	low
018	M	50 to 59	High school or less	Adequate	No	pain that goes up and down all the time, with episodes of severe back pain	4	4	5	3	high
019	F	Less than 30 years	Undergraduate degree or equivalent	Adequate	Yes (India)	a few episodes of back pain, with mostly pain-free periods in between	3	4	6	0	low
020	F	50 to 59	Undergraduate degree or equivalent	Adequate	No	some back pain most of the time, and a few episodes of severe pain	2	2	5	0	low
021	M	Less than 30 years	Undergraduate degree or equivalent	Adequate	No	some back pain most of the time, and a few episodes of severe pain	5	7	7	1	high
022	F	60+	Certificate or equivalent	Adequate	No	some back pain most of the time, and a few episodes of severe pain	5	6	5	2	moderate
023	F	Less than 30 years	Undergraduate degree or equivalent	Adequate	Yes (US)	some back pain most of the time, and a few episodes of severe pain	3	1	5	1	high
024	M	40 to 49	Certificate or equivalent	Adequate	No	a few episodes of back pain, with mostly pain-free periods in between	5	9	9	2	high

025	F	40 to 49	Certificate or equivalent	Adequate	No	pain that goes up and down all the time, with episodes of severe back pain	5	5	5	5	moderate
026	F	40 to 49	Postgraduate degree or equivalent	Adequate	No	pain that goes up and down all the time, with episodes of severe back pain	6	6	6	6	low

\*based on Single Item Literacy Screener