

## ORIGINAL RESEARCH

### Developing conceptually sound items for a clinical courage questionnaire

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#### PUBLISHED

7 May 2023 Volume 23 Issue 2

#### HISTORY

RECEIVED: 19 April 2022

ACCEPTED: 12 January 2023

#### CITATION

Brooks R, White IA, Walters L, Williams S, Couper I, Konkin J, Campbell DG. Developing conceptually sound items for a clinical courage questionnaire. *Rural and Remote Health* 2023; 23: 7592. <https://doi.org/10.22605/RRH7592>

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## ABSTRACT:

**Introduction:** Clinical courage can be described as a rural doctor's adaptability and willingness to undertake clinical work at the limits of their training and experience to meet the needs of their patients. This article describes the in-house development of survey items to include in a quantitative measure of clinical courage.

**Methods:** The questionnaire development involved two key concepts: a second-order latent factor model structure and a nominal group technique, used to develop consensus among the

research team members.

**Results:** The steps taken to develop a sound clinical courage questionnaire are described in detail. The resulting initial questionnaire is presented, ready for testing with rural clinicians and refinement.

**Conclusion:** This article outlines the psychometric process of questionnaire design and presents the resultant clinical courage questionnaire.

Keywords:

courage, survey development, psychometric test, rural doctors.

## FULL ARTICLE:

### Introduction

With the worldwide shortage of physicians living and practising in rural and remote areas, it is important to understand better the nature of rural practice. A recent qualitative study examined the lived experience of rural doctors when their patients' needs and the extent of their capabilities intersect<sup>1</sup>. This study identified an overarching construct called clinical courage. This phenomenon resonates strongly with rural clinicians, who have found it difficult to explain the nature of rural practice where they seek to balance quality and safety of health care with patients' access to services. However, the clinical courage literature prior to this study was limited to conceptual pieces<sup>2-4</sup>.

The six attributes of clinical courage experienced by rural doctors have recently been described further in the literature:

1. 'Standing up to serve anybody and everybody in the community'<sup>1</sup>. Rural doctors often have a deep commitment to providing inclusive health care in the communities they identify as belonging to<sup>5-7</sup>. Interconnected relationships enable doctors to have place-based knowledge of their patients<sup>1,8</sup>. However, managing intersecting professional and personal relationships, while commonplace in rural practice, is considered problematic by urban-centric codes of ethics and practice standards<sup>8-10</sup>.
2. 'Accepting uncertainty and persistently seeking to prepare'. Current skills and knowledge are challenged by the broad range and complexity of cases seen<sup>11</sup>. Rural doctors seek to maintain, extend and expand their clinical skills, seeking to develop adaptive expertise through integrative wisdom<sup>7,11</sup>.
3. 'Deliberately understanding and marshalling resources in the context'<sup>5</sup>. Working in resource-limited environments, rural doctors describe requiring an understanding of the physical and human resources available and the adaptability of these in serving patients' needs<sup>7,8</sup>. Thin resources, which can shift in substantial ways over short periods of time, mean constantly balancing individual needs with broader health service and community needs<sup>8</sup>.
4. 'Humbly seeking to know one's own limits'. Self-awareness of what one can and cannot do enables a rural doctor to articulate her capability to herself, her local colleagues and tertiary referral services<sup>8</sup>.
5. 'Clearing the cognitive hurdle when something needs to be done for your patient'. When no action is not an option, and identifying that other resources are not available and no one else is better qualified or experienced, the rural physician makes the choice to act.
6. 'Collegial support to stand up again'. Rural physicians consciously seek out peer support from both those in their community of practice and others who are familiar with rural practice to maintain their resilience and capacity to practice<sup>5,7</sup>.

Some attributes of clinical courage have been discussed in rural health professionals other than doctors, including rural paramedics and rural physiotherapists<sup>9,12</sup>. An exemplar of clinical courage is shown in Box 1.

A related concept, rural practice self-efficacy, has been found to be associated with rural and remote clinical practice<sup>13,14</sup>. Self-efficacy is having the belief that you can achieve what you set out to do

within a defined context – in this case, rural practice. Clinical courage and self-efficacy overlap to some extent, with clinical courage covering a broader range of specific concepts. In a similar research vein, a study in Australia identified the motivations of existing practitioners who worked in remote communities for 3 years or more<sup>15</sup>. The quantitative study found 3 years or more of remote clinical practice more likely in males, in nurses (compared with other health professionals) and those with high clinical self-containment and intercultural interest scores and lower needs to accommodate relationships or have balanced lifestyles<sup>15</sup>. Thus, there is a growing body of knowledge that indicates a key role for psychosocial behavioural concepts contributing to ongoing rural practice. These do not however describe the praxis of rural medicine. Clinical courage has been identified as a potentially relevant concept that rural clinicians seem to identify. Potentially the attributes described above and the overall concept of clinical courage could be applied to support the engagement,

development, support and retention of rural doctors. Being a relatively new concept there is no existing questionnaire that can be used to measure or gauge its role. A focused survey that is psychometrically sound and relatively short will enable the rural health sector to measure the six attributes consistent with the lived experience of clinical courage.

The overarching aim of this research is to develop a quantitative measure of clinical courage, based on a theoretical understanding of the previously described six aspects of clinical courage, combined with psychometric principles to produce a refined initial questionnaire. The purpose of this article is to detail the initial in-house development of survey items used to create a clinical courage questionnaire using a nominal group technique, which facilitated consensus building regarding questionnaire items among members of the research team<sup>16</sup>. Subsequent work will undertake psychometric evaluation and development of the questionnaire.

**Jasmine†: a rural doctor during COVID-19**  
 As COVID-19 swept across the world, Jasmine's response, like many rural doctors, exemplified the features of clinical courage. As the only local doctor, she stepped up to serve her community by managing the local pandemic response, feeling that her community would suffer if she failed in her job. She reached into and beyond the local community to access information and to be better prepared in the face of overwhelming uncertainties. Available resources were marshalled to establish a community isolation unit in the local school and to improvise handwashing facilities. She was humbled by the powerlessness she felt to manage COVID-19, and her greater reliance on the support of others. But she was also inspired by the resilience and dedication of her co-workers and the support from all sectors of the community.

(† 'Jasmine' is a pseudonym. This case study is drawn from interviews with rural doctors during the emerging COVID-19 pandemic [ref. 22].)

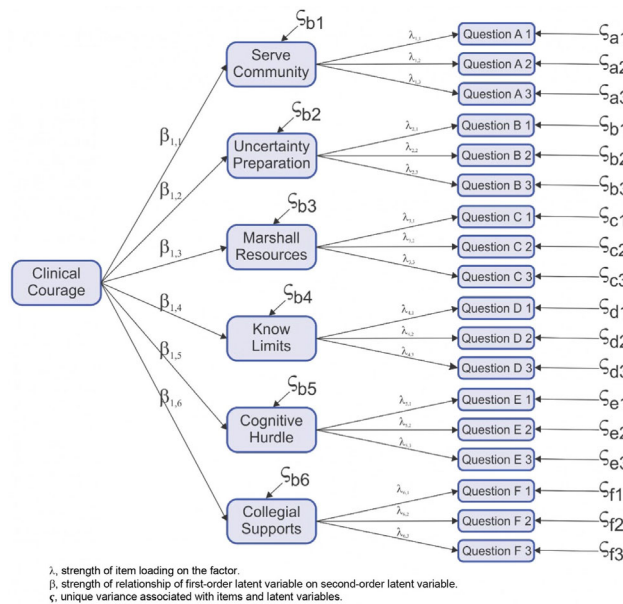
**Box 1: An exemplar of clinical courage.**

**Methods**

The questionnaire development involved two key concepts: a second-order latent factor model structure<sup>17</sup> and the nominal group method of creating survey items<sup>18,19</sup>.

**Latent factor model**

The questionnaire development here focuses solely on the first-order factors, identified as aspects of clinical courage in the qualitative research. Evidence indicates that, for initial stability, five questions are required for each of the six identified domains, called first-order factors<sup>20,21</sup>. Three rather than five or more questions are shown in the clinical courage questionnaire in Figure 1.



**Figure 1: Theoretical model clinical courage questionnaire.**

## Nominal group method

Nominal groups usually involve a structured face-to-face interaction of 5–12 participants<sup>16</sup>. For the in-house development of survey questions, based on the researchers' previous qualitative research, the nominal group consisted of four of the five researchers who undertook the original qualitative study of clinical courage, all of whom are rural doctors (DC, IC, JK, LuW)<sup>1,5</sup>. Also included in the group were an academic general practice registrar (IW) and an experienced qualitative researcher, who had both been involved in further research on clinical courage within the context of COVID<sup>22,23</sup>. The team are from three countries: Australia (DC, LuW, IW, SW), South Africa (IC) and Canada (JK), bringing a range of cultural perspectives to the process of survey item design.

## Moderator

The moderator (RB) is a remotely based academic researcher with a strong background in questionnaire development and psychometrics. As a research psychologist he is familiar with working with and understanding latent constructs. RB has a history of small-group work, clinically, educationally and in research. He ensured all participants were fully engaged and that their voices were heard. The group accepted RB as an appropriate facilitator.

The group facilitation process iteratively consolidated the knowledge of the group and built agreement around all elements of the questionnaire. All meetings were conducted via Zoom to allow for the real-time, virtual, face-to-face interaction of the group members. This is a suitable approach for complex tasks when the interaction of experts is likely to be productive<sup>14</sup>.

## Consensus process

To ensure methodological rigour, the steps in the nominal group method rely on drawing on expertise to generate ideas, confidentiality and consensus formation<sup>16</sup>. This was achieved by the moderator managing the flow of information in the meetings and between each meeting, as outlined in Table 1. Usual practice with consensus research is for a predetermined definition of consensus<sup>24</sup>. In this study, consensus was defined as the highest ranking questions, provided that no member of the nominal group membership objected to the inclusion of the item. The three to six highest ranked items for each domain were then returned to the group, where group members were invited to object to the inclusion; if this did not occur, a final review and wordsmithing of the item were completed.

**Table 1: Independent work and group work in survey development**

Step	Activity	Aim
1. Developing and agreeing on the definitions of six domains of clinical courage	Step 1a: Initial brainstorming of the key elements of the attribute 'serve community' first and then each attribute in turn.	Maximise expert input
	Step 1b: RB wrote draft definitions.	Independent (confidential) work by facilitator
	Step 1c: Draft definitions reviewed, modifications made by whole group. These definitions informed step 2.	Obtain consensus
2. Generation of a pool of items for each attribute	Step 2a: Each nominal group member was asked to contribute potential survey items for each of the six attributes. Members wrote these offline, over a period of 2 weeks.	Maximise expert input
	Step 2b: For each attribute in turn, the group of survey items were reviewed to develop items that incorporated single important concepts.	Obtain consensus
3. Decisions about inclusion of items	Step 3a: Each nominal group member was asked to rank their top five survey items independently. Group members provided their ranked choices to moderator RB who re-scored first rank with 5 points to fifth ranked with 1 point.	Independent decisions by group members
	Step 3b: RB presented the total scores per item back to the group where the group were able to discuss omissions and potential overlaps.	Obtain consensus
	Step 3c: If there was debate about the top five items, or omissions were identified, a second round of voting was undertaken, with RB scoring the votes once more.	Independent decisions by group members
4. Decisions about question construct	Step 4a: RB presented three potential styles of questioning (Table 2) to the group and facilitated a discussion to explore the advantages and disadvantages of each option.	Inform nominal group members
	Step 4b: Each nominal group member was asked to nominate their preferred option, and communicate this to the group.	Obtain consensus
5. Construction and review of initial questionnaire	Step 5a: Items were individually wordsmithed by the group to ensure they made sense in light of the survey overall design.	Obtain consensus
6. Initial piloting and revision	Step 6a: Nominal group members invited a number of rural doctor colleagues to trial the survey and provide commentary about usability, identification of wording or conceptual problems.	End-user feedback
	Step 6b: Feedback was presented to the nominal group by the moderator and collective decisions made about whether to change survey items.	Obtain consensus
	Step 6c: A cooling-off period was provided so nominal group members could review the questionnaire in their own time and provide proposed track changes to RB for final consideration by the whole group.	Independent decisions by group members
	Step 6d: The group approved the final version of the questionnaire.	Obtain consensus

## Project team tasks

Six main activities were undertaken during this nominal group process.

### 1. Developing and agreeing on the definitions of six attributes of clinical courage:

- **Expertise** The group followed standard brainstorming processes to ensure all contributed and no-one was censored.
- **Confidentiality** All the ideas were worked with independently by the moderator, who constructed draft definitions distributed prior to the next meeting.
- **Consensus formation** Open discussion of each definition occurred, challenging meaning and structure; this was followed by rewriting each definition as a group. The final definitions were then written by the moderator and distributed for final approval by the group.

### 2. Generation of a pool of items for each of the domains:

- **Expertise** All group members contributed to generation of items.
- **Confidentiality** Group members returned suggested questions directly to the moderator, who then presented the group with items in a random order within each domain in turn.

### 3. Decisions about inclusion of items:

- **Consensus formation** The items were discussed by the group and consensus reached about whether any questions should be excluded or modified.
- **Expertise:** All group members were asked to choose their top five questions and provide this information to the moderator. The highest ranked items for the domain were calculated by the moderator and the top five for each domain provided to the group.
- **Confidentiality** The process of ranking was undertaken as a group activity. Although choosing was independent, reporting to the moderator was not confidential.

### 4. Decisions about item construct:

- **Expertise** Questions for each domain were presented to the group and assessed as being good questions for the domain or not.
- **Confidentiality** This was an open process relying on group dynamics to generate discussion.
- **Consensus formation** Each question was examined and modified as needed on the basis of discussion, and the final questions were then put into a draft questionnaire by the moderator.

### 5. Construction and review of the initial questionnaire items:

- **Expertise** The clinical courage research group examined the questionnaire and moved items or modified items as too close to other items, or too similar to another construct.
- **Confidentiality** This was an open process, using the group process to generate diverse contribution.
- **Consensus formation** The final questionnaire was drafted by the moderator.

### 6. Initial piloting and item revision:

- **Expertise** This was based on lived experience from rural doctors in three countries who were colleagues of the clinical courage research group. Each clinician in the group approached rural colleagues to complete and review the questionnaire.
- **Confidentiality** Comments were returned to the colleagues, who asked them to comment, and then de-identified and sent to the moderator. The comments were used to modify the questionnaire as necessary.
- **Consensus formation** This modified questionnaire was distributed to the participants for sign-off, which all did, and this was the version used in the next stage of the development of the clinical courage questionnaire.

These activities were undertaken across a series of weekly meetings across a 3-month period with the facilitator (RB), providing a summary of consensus work and next steps prior to each meeting, as outlined in Table 1.

### Ethics approval

This research project received low-risk ethics approval from The University of Adelaide Human Research Ethics Committee (project number H-2022-086).

### Results

The question generation process resulted in 73 questions across the six domains (Table 2). For each domain, between 7 and 19 draft questions were reviewed by the group to eliminate questions that were (1) not a measure of the domain or (2) overlapped too much with each other within the domain. After exclusion and refinement, individual ranking and review after post-pilot feedback, 30 domain-specific questions remained.

After considerable discussion, the introductory statement for each question was modified to the form of the affective judgement (Table 3, option 3): 'In my current practice how like me is it ...' The consensus was that clinical courage was most likely a praxis associated with contemporary work ('in my current practice'), rather than a description of an individual's characteristics (option 1) or values (option 2).

A trial questionnaire was constructed from the final questions in each domain. This trial questionnaire was modified in view of feedback from eight rural clinicians, who completed and commented on it. At the penultimate group meeting, the nominal group discussed the feedback and through consensus decided to split one question and delete a question that was perceived as very similar to another question. Based on experience with rural and remote clinicians, the primary author suggested a global construct item: 'to experience personal pleasure from meeting the significant clinical challenges of rural and remote patients'. A global item is one that is not directly related to any single underlying construct and may be found to serve as a proxy for the concept (global construct) of clinical courage. If it is determined to be a proxy, it can be used in situations when survey space is critically short in place of the questionnaire. Further, a global item may be useful in developing the scoring structure of the six factors. The process resulted in the initial clinical courage questionnaire (Table 4), which consists of 30 items covering the six domains and one global item.

**Table 2: Developing and refining questions for the clinical courage questionnaire**

Domain	Number of draft questions	After initial exclusion and refinement	After individual ranking to choose top questions	Review after post-pilot feedback received
Serving the community	19	8	5	6
Uncertainty preparations	12	8	4	4
Managing resources	9	5	5	5
Knowing limits	15	3	3	5
Cognitive hurdle	11	6	6	6
Collegial support	7	4	4	4

**Table 3: Style of questions considered for the clinical courage questionnaire**

<p><i>Clinical courage is a clinician's capability and willingness to respond to patient's needs up to and beyond the limits of their training and experience. This questionnaire examines this concept.</i></p> <p>Option 1: Providing statements in the first person with Likert-scale descriptors specific to each question, for example:</p> <p style="text-align: center;"><i>I feel responsible for the health outcomes of everyone in my community</i></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;"><i>I'm not responsible</i></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td style="text-align: center;">8</td> <td style="text-align: center;">9</td> <td style="text-align: center;">10</td> <td style="text-align: center;"><i>I'm totally responsible</i></td> </tr> </table>											<i>I'm not responsible</i>	1	2	3	4	5	6	7	8	9	10	<i>I'm totally responsible</i>
<i>I'm not responsible</i>	1	2	3	4	5	6	7	8	9	10	<i>I'm totally responsible</i>											
<p>Option 2: Asking participants to undertake a cognitive assessment looking at the importance of each of the items</p> <p style="text-align: center;"><b>How important is it for you ...</b> <i>to take responsibility for the health outcomes of everyone in my community</i></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;"><i>Not important</i></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td style="text-align: center;">8</td> <td style="text-align: center;">9</td> <td style="text-align: center;">10</td> <td style="text-align: center;"><i>Extremely important</i></td> </tr> </table>											<i>Not important</i>	1	2	3	4	5	6	7	8	9	10	<i>Extremely important</i>
<i>Not important</i>	1	2	3	4	5	6	7	8	9	10	<i>Extremely important</i>											
<p>Option 3: Asking participants to undertake an affective judgement of items looking at their attitude towards each of the items</p> <p style="text-align: center;"><b>How much is it like you ...</b> <i>to take responsibility for the health outcomes of everyone in my community</i></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;"><i>Not like me</i></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td style="text-align: center;">8</td> <td style="text-align: center;">9</td> <td style="text-align: center;">10</td> <td style="text-align: center;"><i>Very much like me</i></td> </tr> </table>											<i>Not like me</i>	1	2	3	4	5	6	7	8	9	10	<i>Very much like me</i>
<i>Not like me</i>	1	2	3	4	5	6	7	8	9	10	<i>Very much like me</i>											
<p>FINAL DECISION: Asking participants to undertake an affective judgement of items, looking at their current practice items</p> <p style="text-align: center;"><b>In my current practice how like me is it to ...</b> <i>take responsibility for the health outcomes of everyone in my community</i></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;"><i>Not like me</i></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td style="text-align: center;">8</td> <td style="text-align: center;">9</td> <td style="text-align: center;">10</td> <td style="text-align: center;"><i>Very much like me</i></td> </tr> </table>											<i>Not like me</i>	1	2	3	4	5	6	7	8	9	10	<i>Very much like me</i>
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**Table 4: Definitions and final questions for the clinical courage questionnaire**

Clinical courage factor and description		Exemplar item(s)
[Global clinical courage question]		To experience personal pleasure from meeting the significant clinical challenges of rural and remote patients
Serving the community (19 initial questions)	Engagement with and advocacy for community in responding to the needs of the community by committing professional skills to and respecting a community to which you belong	To take responsibility for the health outcomes of my community
		To have a deep connection to my rural community
		To increase my scope of practice to meet the needs of my community
		To have the community rely on my clinical skills
		To trust in the community to support me
Uncertainty preparation (13 initial questions)	Occurs in context of the unbounded domain of patient need and is the ongoing development of skills and knowledge to be prepared as possible	To have the community trust in my clinical judgement
		To accept the fact that clinical practice involves significant uncertainty
		To learn new skills to manage complex patients
		To develop and maintain my skills for situations I will only face occasionally
Marshalling resources (9 initial questions)	Knowing what infrastructure, equipment and human resources you have and what you can do, and building relationships to apply others' skills and knowledge to increase the overall ability to meet the unbounded needs of the patients	To apply familiar skills to new clinical circumstances
		To know who I can call on when needed
		To know how other members of the team can contribute to my patient's care
		To draw on the team to develop flexible alternative plans, when resources are limited
Knowing one's limits (15 initial questions)	Critical self-reflection so that 'in the moment' there is an awareness of strengths and weaknesses. Taking a humble, emotionally balanced approach to interrogating what in circumstances where you went above and beyond to understand what you can/can't do and do/don't know and when to consult	To make tricky clinical decisions together with other members of the clinical team
		To be aware of and check the equipment available to me
		To reflect on my performance when I have done something outside of my comfort zone
		To seek out discussions with rural colleagues to better judge my competence
		To ask myself if I am the best person to do an unfamiliar clinical procedure
Cognitive hurdle (11 initial questions)	Occurs in the moment on recognition of being at or beyond the limit of comfort of skills and knowledge and deciding to move forward so as to meet patients' needs	To expand my knowledge and skills by reflecting carefully on patient outcomes
		To seek feedback from rural colleagues about my performance when I have a poor patient outcome
		To act to address patients' needs, even if I don't feel confident
		To rely on clear thinking and a systematic approach to the basics in difficult situations
		To reach out to colleagues to help me respond to an urgent situation outside my comfort zone
Collegial supports (7 initial questions)	Having a group of peers to provide a range of collegial supports providing case review and reflection, a contextual/situated base for comparison, reflective honest discussion around conflicts and problems, all with the aim of being better prepared and able for the next client	To act when my patient needs help urgently and I am the only one available
		To be motivated by my emotional connection with my patients
		To make a decision in an emergency that may potentially be wrong, rather than to make no decision
		To have supportive colleagues who keep me working at the edge of my comfort zone
		To be supported to return to do something again when I lose confidence in my ability
		To seek support from my colleagues to persist with working at the edge of my scope of practice
		In my current practice how like me is it to provide support to colleagues to continue with the ambiguities of practice

**Discussion**

Clinical courage has been identified through a number of qualitative articles as one way of experiencing work as a rural doctor<sup>1,5</sup>. Developing a clinical courage survey tool will allow researchers to better understand the frequency, intensity and stability of this praxis in rural medicine and potentially explore clinical courage in other professional groups. Recruiting and retaining clinicians to work in rural and remote areas is a multifaceted problem with factors internal and external to the clinician that influence this decision<sup>25</sup>. Many of the factors, particularly the external ones, are not amenable to change – such as urban background, partner preference and location of amenities<sup>26</sup>. Thus, efforts to understand intrinsic psychosocial emotional factors that attract and retain physicians working in rural and remote communities may provide a means to increase the number of clinicians in rural practice.

The steps outlined in this article provide an example of the internal processes a research team can undertake to improve construct validity of an initial questionnaire. Building valid questionnaires requires a methodical approach based on existing literature, expert knowledge and psychometric principles<sup>27</sup>. In consensus research, a small group well known to each other may be at risk of persuasion bias due to the social influence of stronger personalities of individuals within the group<sup>28</sup>. The authors recognise this is a study limitation; however, this group has spent several years undertaking critical discourse for meaning-making during qualitative data analysis<sup>29</sup>.

Questionnaires are a ubiquitous research tool and it is clear that they have been widely misused<sup>30</sup>. The nominal group approach, using a small number of knowledgeable participants, provided a solid foundation to achieve construct validity in the questionnaire design. Careful development of agreed definitions of the domains involved provided a strong base on which to write and rewrite survey items, as there was a definition against which to test each question. The selection and ranking processes provided a reasonably quick method of identifying the preferred items. However, this voting process was not confidential. Confidential voting is an expectation of nominal group processes<sup>16,28</sup>. The research group has worked well together over several years and our familiarity with working together resulted in this intentional omission.

Another potential weakness to this study is that consensus does not equate to correctness<sup>28</sup>. The nominal group members are all researchers who bring their previous common research history to this process. This limitation will be compensated for in the second phase of this research, when the clinical courage questionnaire is released for testing by rural doctors. The purpose of sharing this questionnaire at this time is, first, to inform other rural researchers about the questionnaire development process and, second, to show the questionnaire at this stage to other rural researchers and rural clinicians for further discussion and feedback.

**Future developments**

Physicians working in rural and remote communities around the world will be invited to complete the initial questionnaire.

Physicians will be recruited through a number of rural physician organisations, such as the Australian College of Rural and Remote Medicine, Rural WONCA (World Organization of Family Doctors), and the Society of Rural Physicians of Canada. When sufficient numbers of surveys have been returned, the questionnaire will be modified based on psychometric principles. The phenomenological and psychometric approaches will not have a 1–1 correspondence and it is anticipated there may be substantial differences. Ultimately, modifications will be made to include other specified

populations such as students undertaking rural/remote placements, nurses undertaking similar placements, and for non-physician clinician groups.

The authors hope the results of this questionnaire will ultimately help to inform health professional education for rural and remote practice as well as recruitment and retention strategies. It may also be a useful, relevant tool that will provide valuable information to guide program evaluation and support future research.

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