Verification of checklist items in OET speaking test data

Final Report

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*Amal Khabbaz contributed to the study reported here as part of her Masters studies at the University of Melbourne. The methods and results sections of this report that relate to categories A and B of the checklist are solely the work of Ms Khabbaz and form part of her Masters thesis.

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Executive Summary

As part of an Australian Research Council (ARC) funded project undertaken at the University of Melbourne in partnership with the OET Centre, a checklist of indicators of effective performance in health-professional-patient interactions was proposed as a means of better aligning the OET speaking subtest criteria with the aspects of communication valued by health professionals. This report describes a study designed to investigate if existing profession-specific OET speaking role play tasks function to elicit the performance attributes described in the new speaking checklist. The study was conducted at the Language Testing Research Centre (LTRC) at the University of Melbourne and commissioned by Cambridge English Language Assessment. The aim of the study was to investigate the extent to which the communicative behaviours detailed in the checklist were evident in the speaking performances of OET test takers who had achieved the test scores needed to meet the requirements for professional registration in their professions.

To this end, we examined 137 transcripts of test taker performances from eight of the twelve professions served by the OET; dentistry, dietetics, medicine, nursing, pharmacy, physiotherapy, radiography, and veterinary science. Performances related to at least two different role play tasks for each of the eight professions. The results of the study suggest that existing role play tasks elicit some, but not all aspects of behaviours described in categories A, C and D of the checklist: Relationship building, Providing structure and Information-gathering and –giving, respectively, across all professions. Limited occurrence of behaviours described in category B, Understanding and incorporating the patient's perspective, however, indicates that these aspects of communication are not widely elicited by the existing tasks. In addition, an examination of performances across professions indicates that the capacity of profession-specific tasks to elicit the behaviours associated with particular indicators varies significantly, with some aspects of the checklist featuring strongly across performances in some professions and not at all in others. This suggests that although the checklist is broadly relevant across different professions, the ways in which particular behaviours are manifest and prioritised in interactions is nuanced within specific professions.

In addition, while it was beyond the scope of the current study to analyse the design and content of existing OET role play tasks, on the basis of the tasks we examined as part of our analysis of performance data, we noted that task instructions typically specify the sequence of the interaction, the health-related issue, and the response to the issue. The demeanour and attitude of the mock patient/client, as well as their understanding of the health issue, was also often specified in task instructions. While these design features are necessary to some extent in the context of assessment, some tasks were more scripted than others and perhaps constrain interactions more than is required. The range of behaviours elicited are thus contingent, at least in part, on the nature of role play scenarios and particular role play task instructions.

In light of these findings and conclusions, we recommend that:

- The checklist not be used as a summative assessment tool;
- Rating scale descriptors be included to broadly reflect the three checklist categories elicited by the role play tasks, but in sufficiently general terms to enable applicability across different professions and role play scenarios;
- The complete checklist be used as a training tool for raters, to be used in conjunction with general rating scale descriptors, with the aim of enhancing their understanding of domain expert views of effective communication.
- Role play tasks remain diverse and reflective of the range of interactions that occur in the domain, but that tasks should be less scripted to enable the potential to elicit a broader range of the communication behaviours valued in the health professions served by the OET.

Introduction

The Occupational English Test (OET) is a specific purpose test designed to evaluate the English-language competence of qualified medical and health professionals who wish to practise in an English-language context. It seeks to ensure that candidates are prepared, in language terms, for work in their profession. It is currently recognised by authorities regulating medical and health professions in Australia, New Zealand and Singapore, as well as the Australian Department of Immigration and Border Protection. The test is taken by candidates from twelve professions: dentistry, medicine, nursing, pharmacy, physiotherapy, dietetics, occupational therapy, optometry, podiatry, radiography, speech pathology and veterinary science. The OET speaking sub-test consists of two profession-specific role play tasks, designed to simulate health professional-patient interactions.

As part of an Australian Research Council (ARC) Linkage project entitled *Towards improved healthcare communication: Development and validation of language proficiency standards for non-native English speaking health professionals* (LP0991153) (Elder et al., 2013; Pill, 2013) undertaken at the University of Melbourne in partnership with the OET Centre, checklist indicators of effective performance in health-professional-patient interactions were proposed with the aim of better aligning the OET speaking subtest criteria with the aspects of communication valued by health professionals. The checklist was empirically derived from a thematic analysis of feedback from professionals in medicine, nursing and physiotherapy on the performances of trainees' interactions with patients.

Since that project, Dr Jonathan Silverman, an expert in clinical communication skills, has revised the checklist based on the process skills inventory of the Calgary-Cambridge Guides. Two projects have since been undertaken to verify the consistency of the revised checklist with the views of health professionals. Firstly, Dr John Pill, the author of the original checklist, conducted a study commissioned by the OET Centre (Pill & Knoch, 2014) to verify the revised checklist in the empirical data collected for the ARC Linkage project. The findings showed that the revised indicators and checklist were present 'at least to some extent in the data set from which the original indicators and checklist were drawn' (p. 16). The authors suggested that the changes generally related to the different backgrounds of the authors (one coming from a 'language' background and one from the background of healthcare education). A second project (Frost, O'Hagan, Knoch, & Pill, 2015) investigated the relevance of these checklist indicators to the health professionals across professions not included in the original study, which had focussed only on medicine, nursing and physiotherapy. Findings from this second project suggested that, on the whole, the checklist described communication behaviours that are valued across a range of health professions. The authors recommended that before the checklist is implemented as part of the operational assessment of the OET speaking test, a study be conducted to verify the extent to which the criteria in the checklist are elicited by existing role play tasks. This report details the outcomes of the recommended study, conducted at the Language Testing Research Centre (LTRC) at the University of Melbourne and commissioned by Cambridge English Language Assessment in response to the recommendation made by Frost, O'Hagan, Knoch and Pill (2015).

The report is organised as follows: the study aim and research questions are first presented, followed by an outline of the methods, including details of the codes and coding procedures. Results are then presented according to the research questions, which focus on examining the extent to which the behaviours described in the checklist are evident in speaking performances on the whole and across professions. The report concludes with some final recommendations based on the study findings.

Study aim & research questions

The current study aimed to investigate the extent to which the communicative behaviours detailed in the checklist were evident in the speaking performances of OET test takers who had achieved the test scores needed to meet the requirements for professional registration in their professions. To this end, test taker performances were examined from eight of the twelve professions served by the OET; dentistry, dietetics, medicine, nursing, pharmacy, physiotherapy, radiography, and veterinary science. Performances related to at least two different role play tasks for each of the eight professions.

Specifically, the study addressed the following two research questions:

1. Do the behaviours specified in the revised checklist occur in OET speaking performances which have met the passing standard for professional registration?

2. Is the extent of occurrence in OET speaking performances of behaviours specified in the revised checklist comparable across professions?

Methods

Dataset

137 audio recordings of test taker performances on OET speaking role play tasks were selected and provided by the OET Centre. The 137 performances were drawn from eight different professions; dentistry (20), dietetics (6), medicine (20), nursing (20), pharmacy (20), physiotherapy (19), radiography (18), and veterinary science (14). For dentistry, medicine, nursing, pharmacy and physiotherapy, performances were spread across two different role play tasks. For dietetics and radiography, performances related to four and three different role play tasks, respectively. All performances had been previously scored at level A or level B by OET assessors, and so met the required English proficiency standards for professional registration.

Coding procedures

Performances were transcribed and coded in NVivo11 Pro (http://www.qsrinternational.com/NVivo-product), according to descriptions of indicators and associated criteria within the four main categories in the revised checklist: A. Relationship building; B. Understanding and incorporating the patient's perspective; C. Providing structure; and D. Information-gathering and –giving (the revised checklist is provided as Appendix 1). Each individual indicator within each category of the revised checklist represents a code, except for indicators C3 and D1, which each consist of 4 codes in accordance with the checklist descriptions for these indicators. The final coding scheme, provided in table 1, below, thus mirrors the speaking behaviours described in the revised checklist.

Table 1. Coding scheme

Category	Codes
A. Relationship building	A1. Initiating the interaction appropriately
	A2. Demonstrating an attentive and respectful attitude
	A3. Demonstrating a non-judgemental approach
	A4. Showing empathy for feelings, predicament, emotional state
B. Understanding/ incorporating patient perspective	B1. Eliciting and exploring patient's ideas/ concerns/ expectations
	B2. Picking up patient's cues
	B3. Relating explanations to elicited ideas, concerns, expectations
C. Providing structure	C1. Sequencing the interview purposefully and logically
	C2. Signposting changes in topic
	C3. Using organising techniques in explanations (**4 sub codes**: categorisation; labelling; chunking; repetition/ summary)
D. Information-gathering and –giving	D1. Facilitating patient's narrative with active listening techniques, minimising interruption (**4 sub codes**: use of silence; verbal encourages, echoing/repetition; paraphrasing/interpretation)
	D2. Using initially open questions, appropriately moving to closed questions
	D3. NOT* using compound questions/leading questions *Examples of compound/leading questions were coded and the percentage of sources with no examples of code D3 was recorded in the results
	D4. Clarifying statements which are vague or need amplification
	D5. Summarising information to encourage correction/invite further information
	D6. Establishing initially what patient already knows
	D7. Pausing periodically when giving information, using response to guide next steps
	D8. Encouraging patient to contribute reactions/feelings
	D9. Checking whether patient has understood information
	D10. Discovering what further information patient needs

Extracts to illustrate how codes were applied to performance data are provided below, by category. The relevant profession is included at the end of each extract in square brackets, together with the audio file name as provided by the OET Centre. Where the code applies only to a segment of the extract, the relevant segment is in bold.

A. Relationship building

A1 **Initiating the interaction appropriately**

Hi (interlocutor's name) I'm (candidate's name), and I'll be your dentist for today. So today, we are scheduled for removal of your tooth right? [Dentistry, DEN_B_05]

A2 **Demonstrating an attentive and respectful attitude**

…so um to make sure that it is that it is actually from the like actually side-effect from that drugs, I need to check the urine samples and to make sure what is the main cause. ***Um is that ok if I do so***?
[Veterinary Science, VET_A_02]

A3 **Demonstrating a non-judgemental approach**

Okay, all right (name of participant) I understand your concern about Hodgkin lymphoma but let me assure you based on my physical examination that I have performed to you it seems very unlikely [Medicine, MED_B_06]

A4 **Showing empathy for feelings, predicament, emotional state**

I'm sorry to hear that. Sorry. [Radiography, RAD_C_03]

B. Understanding and incorporating patient perspective

B1 **Eliciting and exploring patient's ideas/ concerns/ expectations**

Okay, so um how are you doing right now at home? [Nursing, NUR_A_06]

B2 **Picking up patient's cues**

I understand so yeah I got the impression that you are concerned about your lymph node enlargement is that correct? [Medicine, MED_B_01]

B3 **Relating explanations to elicited ideas, concerns, expectations**

And, you've already, you've mentioned to me that you do have a glass of wine before you go to bed... I would suggest is try to avoid alcohol or coffee, tea or any sort of cold drinks before you go to bed. [Pharmacy, PHARM_A_02]

C. Providing structure

C1 Sequencing the interview purposefully and logically

NA – criterion refers to entire performance. See results section, below, for further explanation.

C2 Signposting changes in topic

Before I tell you the treatment options, I would like to just explain you the reason for this condition. [Dentistry, DEN_A_09]

C3 Using organising techniques in explanations

Categorisation
there's two very important thing you need to uh keep in mind [Radiography, RAD_A_04]

Labelling
So the following is the most important thing [Dietetics, DIET_D1]

Chunking
Candidate: ***You can talk, okay, so as you may know you have the shingles, like a few months ago.***
Patient role player: *Yeah.*
Candidate: ***And this shingle is a viral infection.***
Patient role player: *Oh, okay.*
Candidate: ***Okay, this viral infection will affect the nerves.***
Patient role player: *Mm.*
Candidate*:* ***Okay, in the body and when it attacks the nerves people usually will experience this burning sensation***
[Medicine, MED_A_05]

Repetition/Summary
No evidence in the dataset

D. Information-gathering and -giving

Information gathering

D1 **Facilitating patient's narrative with active listening techniques, minimising interruption**

Use of silence
No evidence in dataset – not possible to determine whether or not silence functions as an active listening technique on the basis of audio alone.

Verbal encourages
Patient role player: *They're starting to cause me some pain*
Candidate: ***Okay***
Patient role player: *a little bit uncomfortable, um...*
Candidate: ***Alright***
[Dentistry, DEN_A_07]

Echoing/repetition
Patient role player: *I sit at a desk.*
Candidate: ***You sit at a desk…okay***
[Physiotherapy, PHYS_A_06]

Paraphrasing & Interpretation
So you are talking about um, you are thinking some kind of surgery earlier, so you are not thinking about it anymore now right?
[Medicine, MED_A_10]

D2 **Using initially open questions, appropriately moving to closed questions**

Candidate: ***Could you please tell me something more about your lymph node enlargement?***
Patient role player: *Well, um I have noticed that um they have been swollen in the last few months and they don't hurt, they don't bother me...*
Candidate: ***So for the last few months have you noticed it has been getting larger in size?***
Patient role player*: No, they haven't been getting larger but there has been some other things, um, I have noticed that I have been sweating at night.*
Candidate: ***So have you noticed recent fever?***
[Medicine, MED_B_04]

D3 **(NOT) using compound questions/leading questions**

How about your medications going on with your blood pressure, are you taking regularly? When you get a headache what do you do?
[Nursing, NUR_B_05]

D4 **Clarifying statements which are vague or need amplification**

Alright let me just clarify something, when you say the base, can you just locate with your finger where Exactly
[Physiotherapy, PHYS_B2_06]

D5 **Summarising information to encourage correction/invite further information**

So you have been saying that you have increased headaches and you have forgot to take your medications some times?
[Nursing, NUR_B_09]

Information gathering

D6 **Establishing initially what patient already knows**

And, um, basically you have to eat a food which is high in fibre. Ok? ***Do you know some of that kind of food?*** [Dietetics, DIET_A_01]

D7 **Pausing periodically when giving information, using response to guide next steps**

Candidate: …***what you need to do is just, I can just um, ah remade the base of the denture which is called relining.***
Patient role player: *Okay…*
Candidate: ***If that's ok for you?***
Patient role player: *What does that involve?*
Candidate: ***So, that just involves I to take a good impression…***
[Dentistry, DEN_A_03]

D8 **Encouraging patient to contribute reactions/feelings**

Is there any other concern that you want to discuss? [Nursing, N_B_02]

D9 **Checking whether patient has understood information**

Do you understand what I mean or …? [Dentistry, DEN_A_02]

D10 **Discovering what further information patient needs**

Good. So do you have any other question? [Medicine, MED_A_10]

Data analysis

As noted, the aim of the study was to establish whether existing role play tasks have the potential to elicit behaviours described in the checklist. To this end, coding and analysis focused on identifying the number of performances in which behaviours described in the checklist occurred. Because the number of performance samples varies by profession in the dataset, occurrence is reported as the percentage of performances in which particular codes occurred in the entire dataset (research question 1); and in each profession (research question 2.

Results

Results are organised below according to the two main research questions addressed in the study, as set out above. Findings that relate to the entire dataset (research question 1) are first presented, followed by a comparison of results across the eight professions (research question 2).

Results for research question 1

(Do the behaviours specified in the revised checklist occur in OET speaking performances which have met the passing standard for professional registration?)

Table 2, below, provides an overview of the extent to which each of the four checklist categories occurred in the OET speaking performances across all professions. As shown, behaviours described in categories A and C were identified in all performances, and in most performances evidence of category D behaviours was identified (91%). Category B, by contrast, occurred in only 18% of performances.

Table 2. Percentage of performances in which checklist categories occurred

	Communication behaviours by category			
	A. Relationship building	B. Understanding/ incorporating patient perspective	C. Providing structure	D. Information-gathering and –giving
Occurrence (%)	100	18	100	91

As shown below in tables 3 to 7, however, there was significant variation within each category and not all indicators and criteria described within checklist categories occurred in the speaking performances. In category A, for example, almost all performances included evidence of indicator A1, 'Initiating the interaction appropriately', while indicators A2 and A4, 'Demonstrating an attentive and respectful attitude' and 'Showing empathy' were evident in only around half of the performances, 56 and 45 percent, respectively (see table 3). Further, there was little evidence across the dataset of indicator A3, 'demonstrating a non-judgmental approach' (12%).

Table 3. Category A: Percentage occurrence by criteria

	A. Relationship building			
	A1. Initiating the interaction appropriately	A2. Demonstrating an attentive and respectful attitude	A3. Demonstrating a non-judgmental approach	A4. Showing empathy for feelings, predicament, state
Occurrence (%)	96	56	12	45

In category B, as table 4 shows, indicator B1, 'Eliciting and exploring patient's ideas/concerns/explanations' occurred in only 13 per cent of performances. Not surprisingly, indicator B3, 'Relating explanations to elicited ideas/concerns/expectations', which is an extension of indicator B1 in that it presumes ideas/concerns/explanations *have been* elicited, occurred in only 3 per cent of performances. Indicator B2, 'Picking up patient's cues', also hardly featured, occurring in only 2 per cent of performances.

Table 4. Category B: Percentage occurrence by criteria

	B. Understanding and incorporating patient perspective		
	B1. Eliciting and exploring patient's ideas/concerns/expectations	B2. Picking up patient's cues	B3. Relating explanations to elicited ideas/concerns/expectations
Occurrence (%)	13	2	3

While categories C and D of the checklist featured strongly in the performance data, this was mainly due to the consistent occurrence of particular indicators, as shown in Tables 5, 6 and 7, below. In category C (see table 5), C1 occurred throughout the dataset, likely due to the scripted nature of the role play tasks, in which a list of points to be covered in the mock consultation is specified in a purposeful and logical order for both the candidate and the interlocutor. Within indicator C3, chunking occurred in all performances but other criteria within this indicator occurred rarely, or not at all, as was the case for 'repetition and summary of important points'. As shown in table 5, while there was some evidence of signposting, categorising and labelling, these occurred in only 38, 20 and 15 percent of performances, respectively.

Table 5. Category C: Percentage occurrence by criteria

	C. Providing structure					
	C1. Sequencing the interview purposefully and logically	C2. Signposting changes in topic	C3. Using organising techniques in explanations			
			categorisation	labelling	chunking	repetition /summary
Occurrence (%)	100*	38	20	15	100	0

In category D: Information gathering (see table 6), the majority of candidates moved appropriately from open to closed questions (indicator D2, 69%) and avoided using compound or leading questions (indicator D3, 85%). Indicator D4 very rarely occurred, however, as shown in table 6 (1%). Within indicator D1, although some performances displayed 'verbal encourages' and 'echoing and repetition' as active listening techniques, the proportions were less than a third for both, and there was almost no evidence of paraphrasing and interpreting (1%). The use of silence as an active listening technique could not be ascertained, as explained above in the methods section, due to the nature of the data (audio only).

Table 6. Category D. Information gathering: Percentage occurrence by criteria

	D. Information-gathering							
	D1. Facilitating patient narrative with active listening techniques				D2. Open -> closed Qs	D3. NOT using compound Qs	D4. Clarifying vague statements	D5. Summarising to encourage correction/ invite information
	Silence	Verbal encourages	Echoing/ repetition	Paraphrasing & interpreting				
Occurrence (%)	0	30	22	1	69	85	1	14

In terms of the 'Information giving' criteria in category D (see table 7), there was evidence of indicators D6, D8 and D10 in 18, 29 and 22 per cent of performances, respectively, but very little evidence of D7, 'pausing periodically, using response to guide next steps' (8%) or D9, 'checking patient has understood' (2%). As was the case in relation to category C, discussed above, the absence of these indicators in the dataset is likely due, at least in part, to the scripted nature of the role play tasks; within role play tasks, instructions for both the candidate and the mock patient often specify the points over which the mock patient will feel confusion or signal disagreement, which constrains the performance and limits the occurrence of behaviours that may be displayed in real world interactions.

Table 7. Category D. Information giving: Percentage occurrence by criteria

	D. Information giving				
	D6. Establishing what patient knows	D7. Pausing periodically, using response to guide next steps	D8. Encouraging patient to contribute reactions/ feelings	D9. Checking patient has understood	D10. Discovering what further information patient needs
Occurrence (%)	18	8	29	2	22

Results for research question 2

(Is the extent of occurrence in OET speaking performances of behaviours specified in the revised checklist comparable across professions?)

An overview of the occurrence of checklist categories by profession is presented in Table 8, below. As shown, all four categories featured, at least to some extent, in performances across six of the eight professions. The remaining two professions, dentistry and physiotherapy, showed evidence of categories A, C and D, but no evidence of category B behaviours. Furthermore, within category B, there was significant variation across the six professions in which it featured. In dietetics, for example, 50 per cent of performances involved displays of category B behaviours, in pharmacy and radiography, 29 and 25 per cent, respectively, in medicine and nursing only 7 per cent, and in veterinary science only 6 per cent.

Table 8. Percentage of performances in which checklist categories by profession

	Communication behaviours by category			
Occurrence by profession (%)	A. Relationship building	B. Understanding/ incorporating patient perspective	C. Providing structure	D. Information-gathering and –giving
Dentistry	100	0	100	74
Dietetics	100	50	100	67
Medicine	100	7	100	100
Nursing	100	7	100	100
Pharmacy	100	29	100	100
Physiotherapy	100	0	100	100
Radiography	100	25	100	90
Veterinary Science	100	6	100	100

As also shown in Table 8, category D behaviours were identified in all performances in five of the eight professions (medicine, nursing, pharmacy, physiotherapy and veterinary science), in 90 per cent of performances in the radiography profession, and in 74 and 67 per cent of performances in dentistry and dietetics, respectively. These differences across professions are examined below, in relation to individual indicators and criteria within each category (see tables 9 to 13).

Table 9. Category A: Percentage occurrence of criteria by profession

	A. Relationship building			
Occurrence by profession (%)	A1. Initiating the interaction appropriately	A2. Demonstrating an attentive and respectful attitude	A3. Demonstrating a non-judgmental approach	A4. Showing empathy for feelings, predicament, state
Dentistry	83	75	0	83
Dietetics	100	100	0	0
Medicine	100	43	21	57
Nursing	100	57	57	7
Pharmacy	93	43	0	57
Physiotherapy	100	46	0	15
Radiography	100	58	0	47
Veterinary Science	100	75	0	75

As shown in Table 9, above, all four category A indicators were observed in two professions only: medicine and nursing. While indicator A1 occurred consistently throughout the dataset, regardless of profession, there were performances in dentistry and pharmacy that did not show evidence of 'initiating the interaction appropriately'. An extract taken from the beginning of a performance in dentistry that did not show evidence of A1 is provided here, to illustrate the influence of task design in constraining communication behaviours:

"*Okay, we have just extracted your, your upper left molar tooth and ah you should have you should take these instruction, put these instructions …"* (DEN_B_03).

Examining the particular task used, it is clear that the role play scenario begins part way through a consultation, (the patient has just had a tooth removed and is concerned about the bleeding). There was thus no need to perform greetings and introductions, which are expected to take place at the beginning of a consultation.

There was also variation in the occurrence of indicator A2 across professions. As shown in Table 9, there was a significantly higher occurrence of this indicator in dietetics, where it was identified in all performances, and also in dentistry and veterinary science, where it was found in 75 per cent of performances. Similarly, indicator A3, which occurred in only 12 per cent of performances overall, was limited to performances in nursing (57%) and medicine (21%) and was not displayed in performances across the remaining six professions. Indicator A4 was more prevalent in dentistry and veterinary science, occurring in 83 and 75 per cent of performances, respectively. This indicator occurred in only 7 per cent of performances in nursing and did not occur at all in dietetics.

Table 10, below, shows the occurrence of indicators in category B of the checklist, by profession. As shown, the three indicators did not all occur within any particular profession. Evidence of two out of three of the indicators was identified in performances in pharmacy, radiography and veterinary science, but in each of the remaining five professions only one category B indicator was identified. Indicator B1 occurred across the highest number of professions, but significant differences across professions were identified. As shown in Table 10, the indicator was identified in 63 per cent of the veterinary science performances, in 50 per cent of the dietetics performances, in only 21, 16 and 7 per cent of performances in pharmacy, radiography and nursing, respectively, and in none of the dentistry, medicine and physiotherapy performances. Indicators B2 and B3 occurred in only two of the eight professions; B2 in medicine and veterinary science and B3 in pharmacy and radiography.

Table 10. Category B: Percentage occurrence of criteria by profession

Occurrence by profession (%)	B. Understanding and incorporating patient perspective		
	B1. Eliciting and exploring patient's ideas/concerns/expectations	B2. Picking up patient's cues	B3. Relating explanations to elicited ideas/concerns/expectations
Dentistry	0	0	0
Dietetics	50	0	0
Medicine	0	7	0
Nursing	7	0	0
Pharmacy	21	0	14
Physiotherapy	0	0	0
Radiography	16	0	8
Veterinary Science	63	13	0

Table 11. Category C: Percentage occurrence of criteria by profession

Occurrence by profession (%)	C. Providing structure					
	C1. Sequencing the interview purposefully and logically	C2. Signposting changes in topic	C3. Using organising techniques in explanations			
			categorisation	labelling	chunking	repetition /summary
Dentistry	100	21	32	16	100	0
Dietetics	100	0	17	17	100	0
Medicine	100	50	14	7	100	0
Nursing	100	21	14	57	100	0
Pharmacy	100	50	0	0	100	10
Physiotherapy	100	60	30	0	100	0
Radiography	100	70	20	0	100	0
Veterinary Science	100	30	30	10	100	0

In category C, shown in table 11, above, all three indicators were identified in seven out of the eight professions. In dietetics, there was no occurrence of C2 but the other two indicators featured in all performances in this profession. In terms of individual indicators, C1 occurred in all performances in all professions. As already noted, this is related to the nature of the role play task instructions, which set out the sequence of the interview for both the candidate and interlocutor. 'Chunking', a criterion within indicator C3, also occurred in all performances. Indicator C2 occurred in the majority of performances in physiotherapy and radiography, 60 and 70 per cent respectively and in half of the performances in medicine and pharmacy. The occurrence of this indicator was less prevalent, however, in the professions of veterinary science (30%), nursing (21%) and dentistry (21%), and as noted, there was no evidence of indicator C2 in dietetics performances. Within indicator C3, apart from 'chunking', criteria did not feature uniformly across professions. 'Categorisation', as an organising technique, featured in all professions except pharmacy, but in no more than 20 percent of performances in four of the remaining seven professions. 'Labelling' was identified in four out of seven professions, but percentages were very low except in nursing, where the technique appeared in 57 per cent of performances. There was virtually no evidence of 'repetition and summary of important points' in the data.

Table 12. Category D. Information gathering: Percentage occurrence of criteria by profession

Occurrence by profession (%)	D. Information gathering							
	D1. Facilitating patient narrative with active listening techniques				D2. Open -> closed Qs	D3. NOT using compound Qs	D4. Clarifying vague statements	D5. Summarising to encourage correction/ invite information
	silence	Verbal encourages	Echoing/ repetition	Paraphrasing & interpreting				
Dentistry	NA*	11	0	0	53	89	0	5
Dietetics	NA	17	0	0	50	83	0	0
Medicine	NA	64	43	7	57	100	0	7
Nursing	NA	7	0	0	100	79	0	14
Pharmacy	NA	40	10	0	90	70	0	30
Physio	NA	40	60	0	100	70	10	4
Radiography	NA	30	30	0	10	90	0	0
Vet Science	NA	40	40	0	90	90	0	20

*Video, in addition to audio, would be required to determine if existence of silence represents active listening in the dataset

In category D. Information gathering, shown in table 12 above, physiotherapy was the only profession for which all 5 indicators were evidenced. In dietetics and radiography, three out of five indicators were identified, and in the five remaining professions, four out of five indicators occurred in the performance data.

In terms of the prevalence of specific indicators, indicator D3 was the only one that occurred in most performances across all professions, ranging from 70 per cent in pharmacy and physiotherapy to 100 per cent in medicine. D2 also featured very strongly across performances in nursing, pharmacy, physiotherapy and veterinary science, but in only half or just over half of performances in dentistry, dietetics and medicine. Further, the indicator occurred in only 10 per cent of radiography performances. Within indicator D1, 'verbal encourages' occurred in over half of performances in medicine (64%), but in no more than 40 per cent of performances in pharmacy, physiotherapy, radiography and veterinary science, and in very few performances in dentistry, dietetics and nursing. 'Echoing and repetition' did not occur in three of the eight professions, but occurred in 60 per cent of performances in physiotherapy. There was virtually no evidence of 'paraphrasing and interpreting' within D1, and no evidence of D4. The occurrence of indicator D5 was low in six of the eight professions, and zero in dietetics and radiography.

In category D. Information giving, shown in table 13, below, all five indicators were not present within any one profession. In performances in dentistry, medicine, and radiography, four out of five indicators were identified; in dietetics, nursing, physiotherapy and veterinary science, three out of five were evidenced; and in the remaining profession, pharmacy, only two of the five indicators were located in the performance data. Furthermore, no particular indicator occurred in more than 50 per cent of performances in any profession, and D8 was the only indicator that featured in performances across all professions. Occurrence of D8 ranged from 17 per cent in dietetics to 50 per cent in nursing. Indicator D10 was identified in all professions except pharmacy, and occurrence ranged from 5 per cent in dentistry to 50 per cent in radiography. D6 featured in six of the eight professions, with occurrence ranging from 10 per cent in veterinary science to 50 per cent in radiography.

Table 13. Category D. Information giving: Percentage occurrence of criteria by profession

Occurrence by profession (%)	D. Information giving				
	D6. Establishing what patient knows	D7. Pausing periodically, using response to guide next steps	D8. Encouraging patient to contribute reactions/ feelings	D9. Checking patient has understood	D10. Discovering what further information patient needs
Dentistry	0	5	21	5	5
Dietetics	17	0	17	0	17
Medicine	21	14	21	0	43
Nursing	36	0	50	0	29
Pharmacy	0	0	30	10	0
Physio	20	0	30	0	20
Radiography	50	40	20	0	50
Vet Science	10	0	40	0	10

Summary of results

As shown above, there was sufficient evidence in the performance data to suggest that existing role play tasks elicit some aspects of behaviours described in categories A, C and D of the checklist: Relationship building, Providing structure and Information-gathering and –giving, respectively. Despite the overall prevalence of categories A, C and D in performance data, however, there were significant differences in the occurrence of individual indicators within categories. In category A, for example, A1 occurred in almost all performances, A2 and A4 in around half of the performances, and A3 in very few (12%). In category C there was uniform occurrence of C1, due to the fact that the sequence of the interview is indicated in the role play task instructions. There was also a high incidence of chunking as an organising technique. Other behaviours described in category C, however, did not occur in the majority of performances. In category D, two of the five indicators, D2 and D3, featured in a strong percentage of performances, 69 and 85 per cent, respectively, whereas other indicators rarely occurred. Limited occurrence of behaviours described in category B, Understanding and incorporating the patient's perspective, indicate that these aspects of communication are not widely elicited by existing tasks.

In terms of occurrence across different professions, all four categories featured, at least to some extent, in six of the eight professions, the exceptions being dentistry and physiotherapy. The extent to which individual indicators featured in the performance data, however, varied according to checklist category and profession. In category A, for example, only medicine and nursing performances showed features of all four indicators. A3 did not occur in performances in the other six professions, and A4 was also absent in dietetics. As already noted, category B did not feature strongly in the dataset, but indicator B1 occurred in 63 per cent of the veterinary science performances and half of the dietetics performances. In category C, evidence of all indicators were present in performance data across seven of the eight professions, with the exception again of dietetics. Within this category, some aspects of performance, notably C1 and 'chunking' within C3, occurred uniformly across all performances in all professions whereas other behaviours varied significantly in occurrence. Finally, in category D, all five indicators occurred across performances in physiotherapy but in no other profession. In dentistry, medicine, nursing, pharmacy and veterinary science, four indicators were identified but no evidence of C4 was found in performance data. In dietetics and radiography, three out of five indicators were identified, with no evidence found of indicators C4 or C5.

In summary, results suggest that existing OET role play tasks elicit some but not all aspects of the behaviours described in categories A, B, C and D of the revised checklist, albeit, in the case of category B, to a very limited extent. An examination of performances across professions indicates that the capacity of profession-specific tasks to elicit the behaviours associated with particular indicators varies significantly, with some aspects of the checklist featuring strongly across performances in some professions and not at all in others. This was due, in part, to task design. It was clear, for example, that a role play task situated in the middle of a consultation is unlikely to elicit greetings and introductions, as illustrated by the dentistry role play example referred to in relation to category A, above. Similarly, the lack of evidence in support of D7, 'pausing periodically when giving information, using responses to guide next steps' is likely due to the scripted nature of the role play interactions. Candidates were provided with details of what information to provide patients and of what steps to follow in many of the role play tasks, and mock patients are instructed about how to respond, which constrains the nature of the interaction. The high occurrence of indicator B1 'eliciting and exploring the patient's ideas/concerns/expectations' in the veterinary science performances compared to its very low or non-occurrence in all but one of the other professions is very likely due to the nature of one of the role play tasks, in which the test candidate is instructed to calm a very dog owner who is "in a panic, full of questions, believing the worst…" [OET VET_A1]. Similarly, in category D, a lack of evidence of D4, 'clarifying statements which are vague or need amplification' is likely also due to the nature of task design, whereby candidates are instructed about the condition of the patient/client and also about what treatment or response is needed.

In conclusion, these findings suggest that although the checklist is broadly relevant across different professions, the ways in which particular behaviours are manifest and prioritised in interactions is nuanced within specific professions. Further, the extent to which checklist behaviours are elicited is contingent on the nature of role play task instructions as well as particular scenarios, at least to some extent. While it was beyond the scope of the current study to analyse the design and content of existing OET role play tasks, on the basis of the tasks we examined as part of our analysis of performance data, we noted that task instructions typically specify the sequence of the interaction, the health-related issue, and the response to the issue. The demeanour and attitude of the mock patient/client, as well as their understanding of the health issue, was also often specified in task instructions. While these design features are necessary to some extent in the context of assessment, some tasks were more scripted than others and perhaps constrain interactions more than is required.

Recommendations

In light of these findings and conclusions, we recommend that:

- The checklist not be used as a summative assessment tool;
- Rating scale descriptors be included to broadly reflect the three checklist categories elicited by the role play tasks, but in sufficiently general terms to enable applicability across different professions and role play scenarios;
- The complete checklist be used as a training tool for raters, to be used in conjunction with general rating scale descriptors, with the aim of enhancing their understanding of domain expert views of effective communication.
- Role play tasks remain diverse and reflective of the range of interactions that occur in the domain, but that tasks should be less scripted to enable the potential to elicit a broader range of the communication behaviours valued in the health professions served by the OET.

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Appendix 1: Checklist

Aspects of spoken communication relevant to health professional-patient interactions

The Occupational English Test (OET) is a specific-purpose language test for health professionals who have trained elsewhere and are seeking registration to practise in Australia. Changes to the OET speaking sub-test have been proposed (based on previous research) to maintain the test's relevance to the communicative demands of today's healthcare workplaces. This project seeks to collect information from practitioners and educators from all the health professions served by the OET to investigate whether these changes are viewed as relevant and appropriate for each profession.

The assessment checklist provided here has been designed to reflect what is important in health professional–patient spoken communication. Four main categories have been identified (relationship building, understanding and incorporating the patient's perspective, providing structure to interviews with patients, and information gathering and giving), and a range of skills/behaviours within each category. Please **read through each of the communication behaviours/skills** described within each of the four main categories, and **comment on the relevance to <u>your</u> profession** of each of the behaviours/skills.

A. Relationship building

A1 Initiating the interaction appropriately (greeting, introductions)

Definition	**Relevance to your profession**
Initiating the interview appropriately helps establish rapport and a supportive environment. Initiation involves greeting the patient, introducing yourself, clarifying the patient's name and clarifying your role in their care. The nature of the interview can be explained and if necessary negotiated. An effective example would be: *"Hello, I'm Dr. Albert, is it Margaret French? I'm one of the rheumatologists attached to the hospital. Your family doctor has asked me to see you about the joint problems you've been having"*	

A2 Demonstrating an attentive and respectful attitude

Definition	**Relevance to your profession**
Throughout the interview, demonstrating attentiveness and respect establishes trust with the patient, lays down the foundation for a collaborative relationship and ensures that the patient understands your motivation to help. Examples of such behaviour would include attending to the patient's comfort, asking permission and consent to proceed, and being sensitive to potentially embarrassing or sensitive matters. For instance: "*May I sit here? What I would like to do is spend 20 minutes with you now discussing your problems and examining you? Is that okay? Please let me know if you are in any discomfort at any time"*	

A3 Demonstrating a non-judgemental approach

Definition	**Relevance to your profession**
Accepting the patient's perspective and views non-judgementally without initial rebuttal or reassurance is a key component of relationship building. A judgemental response to patients' ideas and concerns devalues their contributions. A non-judgemental response would include accepting the patient's perspective and acknowledging the legitimacy of the patient to hold their own views and feelings. An effective example would be: "*So what worries you most is that the abdominal pain might be caused by cancer. I can understand that you would want to get that checked out.*"	

A4 Showing empathy for feelings/predicament/emotional state

Definition	**Relevance to your profession**
Empathy is one of the key skills of building the relationship. Empathy involves the understanding and sensitive appreciation of another person's predicament or feelings and the communication of that understanding back to the patient in a supportive way. This can be achieved through both non-verbal and verbal behaviours. Even with audio alone, some non-verbal behaviours such as the use of silence and appropriate voice tone in response to a patient's expression of feelings can be observed. Verbal empathy makes this more explicit by specifically naming and appreciating the patient's affect or predicament. An effective example would be: *"I can see that your husband's memory loss has been very difficult for you to cope with".*	

B. Understanding & incorporating the patient's perspective

B1 Eliciting and exploring patient's ideas/concerns/expectations

Definition	Relevance to your profession
Understanding the patient's perspective is a key component of patient-centred health care. Each patient has a unique experience of sickness that includes the feelings, thoughts, concerns and effect on life that any episode of sickness induces. Patients may either volunteer this spontaneously (as direct statements or cues) or in response to health professionals' enquiries. The health professional might need to ask directly as in *"Did you have any thoughts yourself about what might be causing your symptoms?"* or *"Was there anything particular you were concerned about?"* If expressed spontaneously by the patient, the health professional will need to explore this by saying for instance *"You mentioned that you were concerned about the effect the illness might have on your work, could you tell me more about that?"*	

B2 Picking up patient's cues

Definition	Relevance to your profession
Patients are generally eager to tell us about their own thoughts and feelings but often do so indirectly through verbal hints or changes in non-verbal behaviour (such as vocal cues including hesitation or change in volume). Picking up these cues is essential for exploring both the biomedical and the patient's perspectives. Techniques for picking up cues would include echoing *"Something could be done…?"* or more overtly checking out statements or hints *"You used the word worried, could you tell me more about what you were worried about?"* or *"I sense that you are not happy with the explanations you've been given in the past"*	

B3 Relating explanations to elicited ideas/concerns/expectations

Definition	Relevance to your profession
One of the key reasons for discovering the patient's perspective is to incorporate this into explanations often in the later aspects of the interview. If the explanation does not address the patient's individual ideas, concerns and expectations, then recall, understanding and satisfaction suffer as the patient is still worrying about their still unaddressed concerns An effective example might be: *"You mentioned earlier that you were concerned that you might have angina. I can see why you might have thought that but in fact I think it's more likely to be a muscular pain because…"*	

C. Providing structure

C1 Sequencing the interview purposefully and logically

Definition	Relevance to your profession
It is the responsibility of the health professional to maintain a logical sequence apparent to the patient as the interview unfolds. An ordered approach to organisation helps both professional and patient in efficient and accurate data gathering and information-giving. This needs to be balanced with the need to be patient-centred and follow the patient's needs. Flexibility and logical sequencing need to be thoughtfully combined. It is more obvious when sequencing is inadequate: the health professional will meander aimlessly or jump around between segments of the interview making the patient unclear as to the point of specific lines of enquiry.	

C2 Signposting changes in topic

Definition	Relevance to your profession
Signposting is a key skill in enabling patients to understand the structure of the interview by making the organisation overt: not only the health professional but also the patient needs to understand where the interview is going and why. A signposting statement introduces and draws attention to what we are about to say. For instance, it is helpful to use a signposting statement to introduce a summary: *"Can I just check that I have understood you, let me know if I've missed something…."*. Signposting can be used to make the progression from one section to another and explain the rationale for the next section. An example would be: "*You mentioned two areas there that are obviously important, first the joint problems and the tiredness and second how you are going to cope with your kids. Could I start by just asking a few more questions about the joint pains and then we can come back to your difficulties with the children?"* or *"Since we haven't met before it will help me to learn something about your past medical history. Can we do that now?..."*	

C3 Using organising techniques in explanations

Definition	Relevance to your profession
A variety of skills help to organise explanations in a way that leads particularly to increased patient recall and understanding. Skills include: categorisation in which the health professional forewarns the patient about which categories of information are to be provided e.g. *"There are three important things I want to explain. First I want to tell you what I think is wrong, second, what tests we should do and third, what the treatment might be."* labelling in which important points are labelled by the health professional e.g. *"it is particularly important that you remember this…"* chunking in which information is delivered in chunks with clear gaps in between sections before proceeding repetition and summary of important points e.g. *"So just to recap: we have decided to treat this as a fungal infection with a cream that you put on twice a day for two weeks and if it is not better by then, you are going to come back to see me"*	

D. Information-gathering and -giving

Information-gathering

D1 Facilitating patient's narrative with active listening techniques, minimising interruption

Definition	Relevance to your profession
Listening to the patient's narrative, particularly at the beginning of an interview, enables the health professional to more efficiently discover the story, hear the patient's perspective, appear supportive and interested and pick up cues to patients' feelings. Interruption of the narrative has the opposite effect and in particular generally leads to a predominantly biomedical history, omitting the patient's perspective. Observable skills of active listening techniques include: • the use of silence and pausing • verbal encourages such as *um, uh-huh, I see* • echoing and repetition such as "*chest pain?"* or *"not coping?"* • paraphrasing and interpretation such as *"Are you thinking that when John gets even more ill, you won't be strong enough to nurse him at home by yourself?"*	

D2 Using initially open questions, appropriately moving to closed questions

Definition	**Relevance to your profession**
Understanding how to intentionally choose between open and closed questioning styles at different points in the interview is of key importance. An effective health professional uses open questioning techniques first to obtain a picture of the problem from the patient's perspective. Later, the approach becomes more focused with increasingly specific though still open questions and eventually closed questions to elicit additional details that the patient may have omitted. The use of open questioning techniques is critical at the beginning of the exploration of any problem and the most common mistake is to move to closed questioning too quickly. Closed questions are questions for which a specific and often one word answer, such as yes or no, is expected. They limit the response to a narrow field set by the questioner. Open questioning techniques in contrast are designed to introduce an area of enquiry without unduly shaping or focusing the content of the response. They still direct the patient to a specific area but allow the patient more discretion in their answer, suggesting to the patient that elaboration is both appropriate and welcome. Simple examples of these questioning styles are Open- *"tell me about your headaches"* More directive but still open - *"what makes your headaches better or worse?"* Closed - *"do you ever wake up with the headache in the morning?"* Examples of effective open questioning techniques would be: "*Start at the beginning and take me through what has been happening....."* or *"How have you been feeling since your operation...?"*	

D3 NOT using compound questions/leading questions

Definition	**Relevance to your profession**
A compound question is when more than one question is asked without allowing time to answer. It confuses the patient about what information is wanted, and introduces uncertainty about which of the questions asked the eventual reply relates to. An example would be *"have you ever had chest pain or felt short of breath?"* A leading question includes an assumption in the question which makes it more difficult for the respondent to contradict the assumption e.g., *"You've lost weight, haven't you?* or "*you haven't had any ankle swelling?"*	

D4 Clarifying statements which are vague or need amplification

Definition	**Relevance to your profession**
Clarifying statements which are vague or need further amplification is a vital information gathering skill. After an initial response to an open ended question, health professionals may need to prompt patients for more precision, clarity or completeness. Often patients' statements can have two possible meanings: it is important to ascertain which one is intended. Examples would include: *"Could you explain what you mean by light-headed"* or *"When you say dizzy, do you mean that the room seems to actually spin round?"*	

D5 Summarising information to encourage correction/invite further information

Definition	**Relevance to your profession**
Summarising is the deliberate step of making an explicit verbal summary to the patient of the information gathered so far and is one of the most important of all information gathering skills. Used periodically throughout the interview, it helps with two significant tasks – ensuring accuracy and facilitating the patient's further responses. An effective example would be: *"Can I just see if I've got this right – you've had indigestion before, but for the last few weeks you've had increasing problems with a sharp pain at the front of your chest, accompanied by wind and acid, it's stopping you from sleeping, it's made worse by drink and you were wondering if the painkillers were to blame. Is that right?"*	

Information-giving

D6 Establishing initially what patient already knows

Definition	**Relevance to your profession**
One key interactive approach to giving information to patients involves assessing their prior knowledge. This allows you to determine at what level to pitch information, how much and what information the patient needs, and the degree to which your view of the problem differs from that of the patient. An effective example would be: *"It would be helpful for me to understand a little of what you already know about diabetes so that I can try to fill in any gaps for you."*	

D7 Pausing periodically when giving information, using response to guide next steps

Definition	**Relevance to your profession**
This approach, often called chunking and checking, is a vital skill throughout the information giving phase of the interview. Here, the health professional gives information in small pieces, pausing and checking for understanding before proceeding and being guided by the patient's reactions to see what information is required next. This technique is a vital component of assessing the patient's overall information needs: if you give information in small chunks and give patients ample opportunity to contribute, they will respond with clear signals about both the amount and type of information they still require An effective example would be: *"So really, given the symptoms you have described and the very typical way that you wheeze more after exercise and at night, I feel reasonably confident that what you are describing is asthma and that we should consider ways we might treat it. (Pause) How does that sound so far?"*	

D8 Encouraging patient to contribute reactions/feelings

Definition	**Relevance to your profession**
A further element of effective information giving is providing opportunities for to the patient to ask questions, seek clarification or express doubts. Health professionals have to be very explicit here: many patients are reluctant to express what is on the tip of their tongue and are extremely hesitant to ask the doctor questions. Unless positively invited to do so, they may leave the consultation with their questions unanswered and a reduced understanding and commitment to plans An example would be: *"What questions does that leave you with - have you any concerns about what I have said?"*	

D9 Checking whether patient has understood information

Definition	**Relevance to your profession**
Checking the patient has understood the information given is an important step in ensuring accuracy of information transfer. This can be done by asking *"does that make sense?"* although many patients will say yes when they mean no to avoid looking stupid. A more effective method is to use patient restatement. An example of this would be: *"I know I've given you a lot of information today and I'm concerned that I might not have made it very clear – it would help me if you repeated back to me what we have discussed so far so I can make sure we are on the same track."*	

D10 Discovering what further information patient needs

Definition	**Relevance to your profession**
Deliberately asking the patient what other information would be helpful enables the health professional to directly discover areas to address which the health professional might not have considered. It is difficult to guess each patient's individual needs and asking directly is an obvious way to prevent the omission of important information. An example would be: "*Are there any other questions you'd like me to answer or any points I haven't covered?"*	