Development of an outcome measure to assess performance of physiotherapy cardiorespiratory skills: a Delphi study.

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Development of an Outcome Measure to Assess Performance of Physiotherapy Cardiorespiratory Skills: A Delphi study

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Where are we in evidencing simulation in physiotherapy education?

- Evidence focuses on student perceptions
- One pilot study investigated actual impact on skill performance
- Due to pressures in higher education we need to show it works
- What outcome measures there are focus on MSK skills

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The ultimate aim…

- To investigate if using simulated patients in practical teaching session improves skill development

- First

- Develop an valid and reliable outcome measure to assess the students!

- To identify the elements of palpation, auscultation, Active Cycle of Breathing Technique, vibrations and percussion expert cardiorespiratory physiotherapists consider essential for students to be deemed competent.

Method – Modified Delphi

Identified experts – publishing, practicing/teaching

Round 1 – open questions, content analysis

Round 2 – refining, clarifying: Likert scale questions and open questions – content analysis and % agreement

Round 3 - refining, clarifying, Likert scale agreement – 8% agreement reported. Some elements identifying if essential/nice to have/not required - analysed with content validity index

Round 4 – level of consensus with refined statements, confirmation if elements core or nice to have. Analysed with Content Validity Index

Participants

Round 1

Round 1 invited, n = 19
Demographic data n = 13,
Responses n = 6

Round 2

invited n = 29 , 13 (R1), 16 new (R2+)
Responses 15/21, 10/13 R1, 5/8 R2

Round 3

Invited n = 16 R1 = 10 R2+ = 7
Responses 14/16

Round 4

Invited n =12
Responses 12/12

Excluded

3 no response
3 declined

R2+ 8/16 no response

3 R1 non response
1 non response R2+

2 non-respondents 1 R1,
1R2+

Were they experts?

	Round 1	Round 2	Round 3	Round 4
Participants	6/13 (45%)	15/21 (71%)	14/16 (88%)	12/12 (100%)
Australia	3/3	6/12	7/8	5/5
Canada	2/3	3/5	3/3	3/3
New Zealand	0/1	0/1	-	-
UK	2/6	5/11	4/5	4/4
Years Qualified	27(13-32)	26 (13-36)	26 (13-36)	26 (13-36)
Years in practice	25 (13-32)	21 (5-35)	22 (5-35)	24 (11-35)
Years in academia	13 (3-28)	12 (1-28)	12 (1-28)	12 (1-28)
Yrs in CR	23 (10-30)	20 (5-32)	22 (10-32)	22 (10-32)
Yrs with students	24 (13-32)	20 (4-34)	20 (4-34)	21 (4-34)
Highest academic qualification		9 PhD 2Ed D 4 Masters	9 PhD 1Ed D 4 Masters	7 PhD 1 Ed D42 Masters

Results

- 372 individual items identified in Round 1
- For round 2 - 199 items included
- By end Round 4 - 87 items remained + 8 global professional behaviours

		Palp^n	Ausc^n	BC	TEE	FET	Perc^n	Vib^n	Total
Reasons/ Communication	R1	4	8	2	5	5	5	9	38
	R4	5 (+1)	3(+2)	2(+0)	1(+0)	1(+3)	1 (+1)	3(+4)	26
Skill Performance	R1	21	27	28	30	20	16	19	161
	R4	1(+0)	6(+8)	4(+6)	2(+7)	6(+4)	3(+2)	4(+6)	61

- Scale CVI = 0.907

Discussion

- Currently no suitable outcome measures
- Generally agreement for items either very positive or very negative
- Currently a draft tool - CrEST
- Limitations – recruitment of experts
  Only 3 countries represented
  Number of participants

The next steps

- Rasch analysis for construct validity
- Reliability testing

Fingers crossed -

A study into the effectiveness of high fidelity simulation in skill development for pre-registration physiotherapy students