Investigating intensive care health professionals' views about Selective Decontamination of the Digestive tract: the SuDDICU study

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The author accepts full responsibility for this talk.

UK SUDDICU group

- **Critical Care: Geoff Bellingan (UCL), Brian Cuthbertson (Sunnybrook, Toronto)**
- **Microbiology: Peter Wilson (UCL)**
- **ICU Pharmacy: Rob Shulman (UCL)**
- **ICU nursing: Louise Rose (University of Toronto)**
- **Health Psychology: Jill Francis, Eilidh Duncan**
- **Health Services Research: Jill Francis, Maria Prior, (Aberdeen)**
- **Trials Methodology: Marion Campbell, Graeme MacLennan(Aberdeen)**
- **Implementation research: Martin Eccles (Newcastle)**
- **ICNARC: Kathy Rowan**

Background

Selective Decontamination of the Digestive tract (SDD)

SDD is the prophylactic use of:

- **Topical non-absorbable antibiotics to the oropharynx and stomach**
- **Short course of intravenous antibiotics**

- ***Context:***
  - **Ventilated patients in ICU**
- **Rationale for use – purported to minimise infection in the individual**

SuDDICU study (UK) funded by HTA

Aims were to identify-:

1. **Reasons for low adoption rate for SDD;**
2. **Barriers to implementation of SDD;**
3. **Further research (if any) required in the field.**

Delphi study

- **Delphi: structured, iterative process**
- **Developed as a method to *achieve* expert consensus**
- **Can also be used to *assess* consensus**
- **Participants given anonymised group-level feedback in sequential 'rounds'**

Delphi study methods

- **4 stakeholders groups – ICU physicians (intensivists), microbiologists / ID physicians, pharmacists, nurses / ICU managers**
- **3 geographical regions – UK, Canada, Australia / NZ**
- **Round 1:**
  - **Semi-structured interviews based on Theoretical Domains Framework (Michie et al. 2005)**

TDF Topic guide development

- **Two behaviours to investigate**
  - **Delivery of SDD (at individual level)**
  - **Adoption of SDD (at unit level)**
- **Some domains more appropriate at one level, some span both**
  - **Motivation & Goals –** ***How important is the issue of SDD for you?***
  - **Behavioural regulation –** ***What would need to happen in order to adopt SDD in your unit?***
  - **Skills –** ***Are there any specific skills needed for delivering SDD?***

Analysis

1. **Identification of specific beliefs**
2. **Specific beliefs [illegible] to domains**
   - **By [illegible] dis**
3. **Summary statements of beliefs devised**
   - **Bipolarity**
4. **Summary statements of beliefs formed basis of questionnaire**

A statement whose content may indicate a perceived influence on SDD adoption or delivery

Analysis

- "***And most importantly…, it has got to show that it's of benefit in reducing patient morbidity and mortality and that is where I think at the moment the case hasn't been proven.***" **(501 / Microbiologist)**
- **Specific belief – I am sceptical whether SDD has benefits for patient morbidity and mortality**
- **Coded in Domain 'Beliefs about consequences'**
  - Domain relates to benefits and downsides of the behaviour

Questionnaire development

- **Round 2 materials:**
  - **Questionnaire items representing ALL views elicited in Round 1**
    - 47 items based on TDF
    - 10 items - views on further research

Questionnaire items

SDD is not on my unit's list of clinical priorities

- **Motivation & Goals**

Prophylactic antibiotic use is at odds with my professional training

- ***Social/professional role & identity***

SDD increases nursing workload

- **Beliefs about consequences**

I could influence whether SDD is adopted in my hospital

- **Beliefs about capabilities**

Delphi – Example R2 item

The SuDDICU study

Selective Decontamination of the Digestive tract (SDD) in critically ill patients treated in the Intensive Care Unit

There is no mortality benefit associated with SDD

Stongly Disagree	1	2	3	4	5	6	7	8	9	Strongly Agree
	☐	☐	☐	☐	☐	☐	☐	☐	☐	

Please rate the personal importance of this issue to your overall opinion about the delivery of SDD to critically ill patients.

Not at all important	1	2	3	4	5	6	7	8	9	Very important
	☐	☐	☐	☐	☐	☐	☐	☐	☐	

Save Data

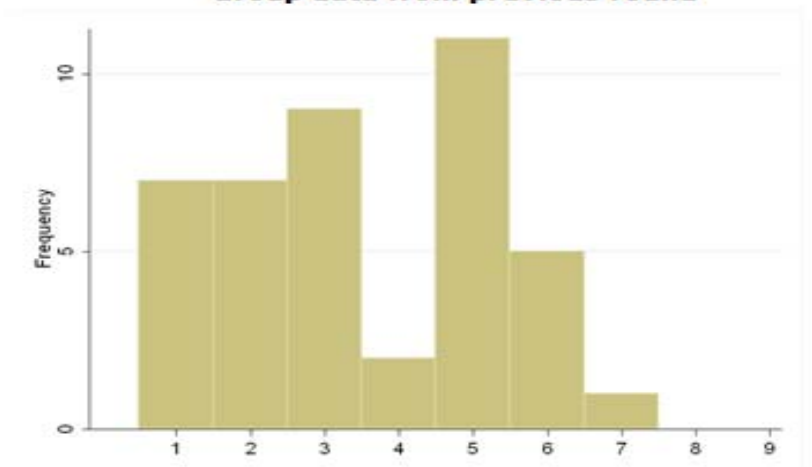
Delphi – Example R3 item

The SuDDICU study

Selective Decontamination of the Digestive tract (SDD) in critically ill patients treated in the Intensive Care Unit

There is no mortality benefit associated with SDD

Group data from previous round



Please answer this question again

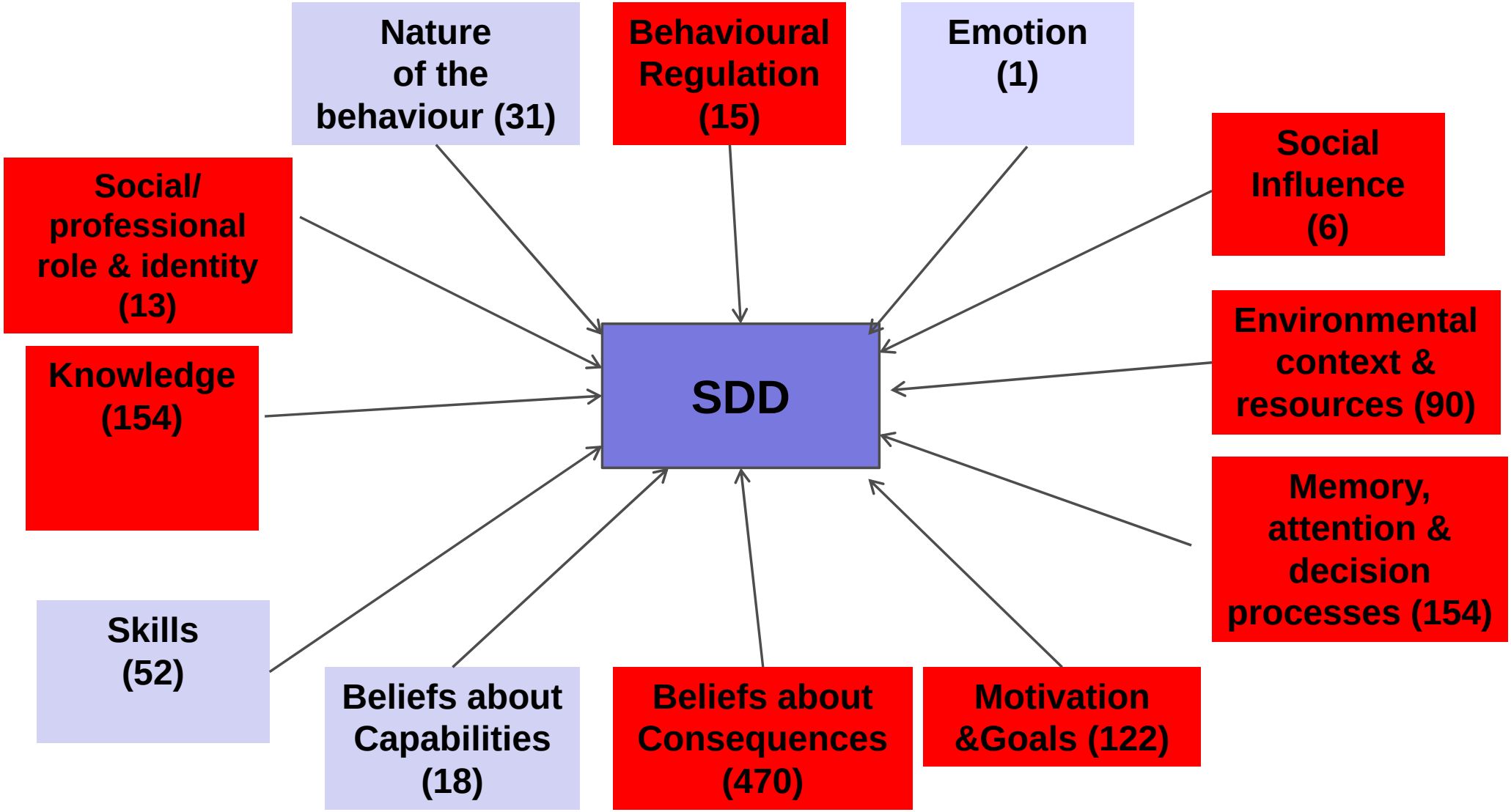
Your previous answer

Stongly Disagree	1	2	3	4	5	6	7	8	9	Strongly Agree
	☐	☐	☐	☐	☐	☐	☐	☐	☐	

Summary of findings

- **TDF provided comprehensive coverage for participants to consider barriers to SDD**
- **TDF aided in construction of questionnaire employed in Delphi study**
- **TDF identified perceived positive and negative consequences of SDD & other factors likely to be barriers to SDD adoption**
- **High level of uncertainty/equipoise about *Beliefs about consequences* of SDD**

Delphi R1 UK Results
(No. utterances from 47 interviews)



(Michie et al. 2005)

- **Thank you for listening – any questions?**

Acknowledgements:

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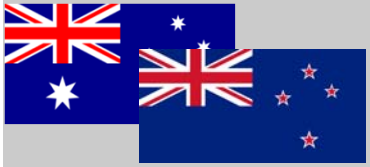
Delphi Study

Delphi round	Participant numbers			
	 UK	 Australia & New Zealand	 Canada	**Total**
R1	47	45	49	141
R2	44	41	43	128
R3	42	34	38	114