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# Reducing the Duration of Urinary Catheters

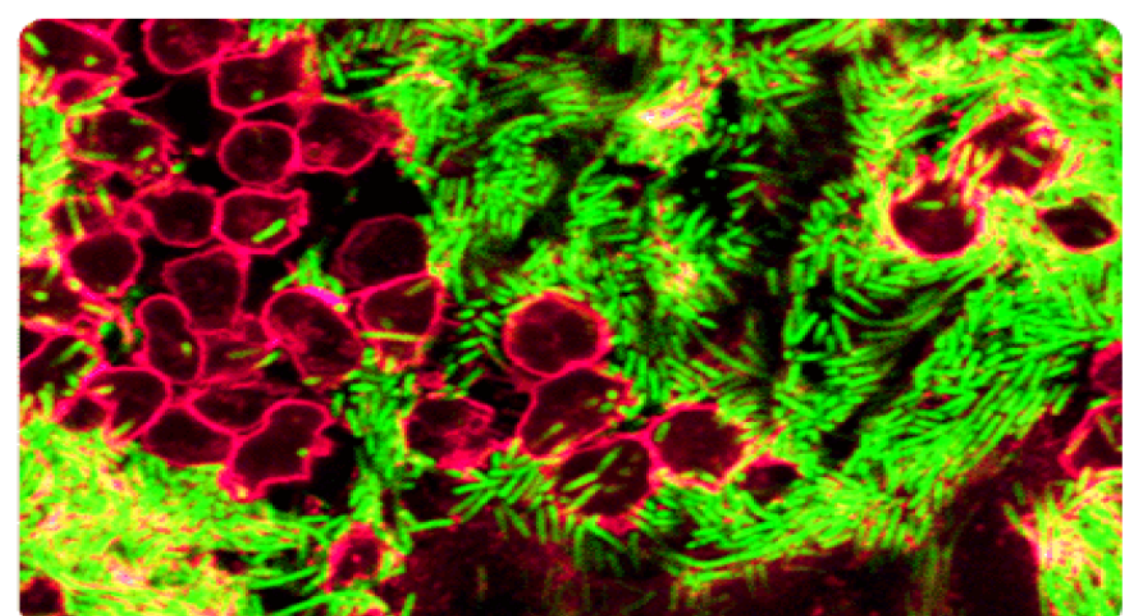
## Patient engagement and communication behaviours around prompt urinary catheter removal: a prospective theory-based correlational study

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### CLINICAL CONTEXT

- 2 million people require a urinary catheter annually during their hospital stay in the UK.
- 300,000 develops catheter associated urinary tract infections (CAUTI).
- Cost the UK National Health Service around £165 million annually.
- CAUTI accounts for 20% of total healthcare acquired infections in the UK hospitals.
- Presence of a catheter results in bacterial bladder colonisation at a rate of 5% per day.



Bladder colonisation by E. Coli bacteria (Green) bladder cells (Red)

### PATIENT BEHAVIOUR

- Target:** 'HCPs involved in urinary catheter care and removal process'
- Action:** 'asking HCP daily if the catheter is still required'
- Context:** 'when admitted to hospital'
- Time:** 'within 24 hours of catheter insertion then daily until the removal'
- Actors:** 'Hospitalised patients with short-term urinary catheter'



### BEHAVIOURAL CONTEXT

- Delayed catheter removal is likely to be due to both patient and healthcare professionals (HCPs) behaviour related factors.
- Identification of these factors using theory-based approach may help change patterns of care to reduce unnecessary prolonged catheterisation.

### AIMS

- To identify predictors of patient related behaviours around catheter duration.
- To inform the development of theory-based, behaviour change intervention to reduce catheter duration.

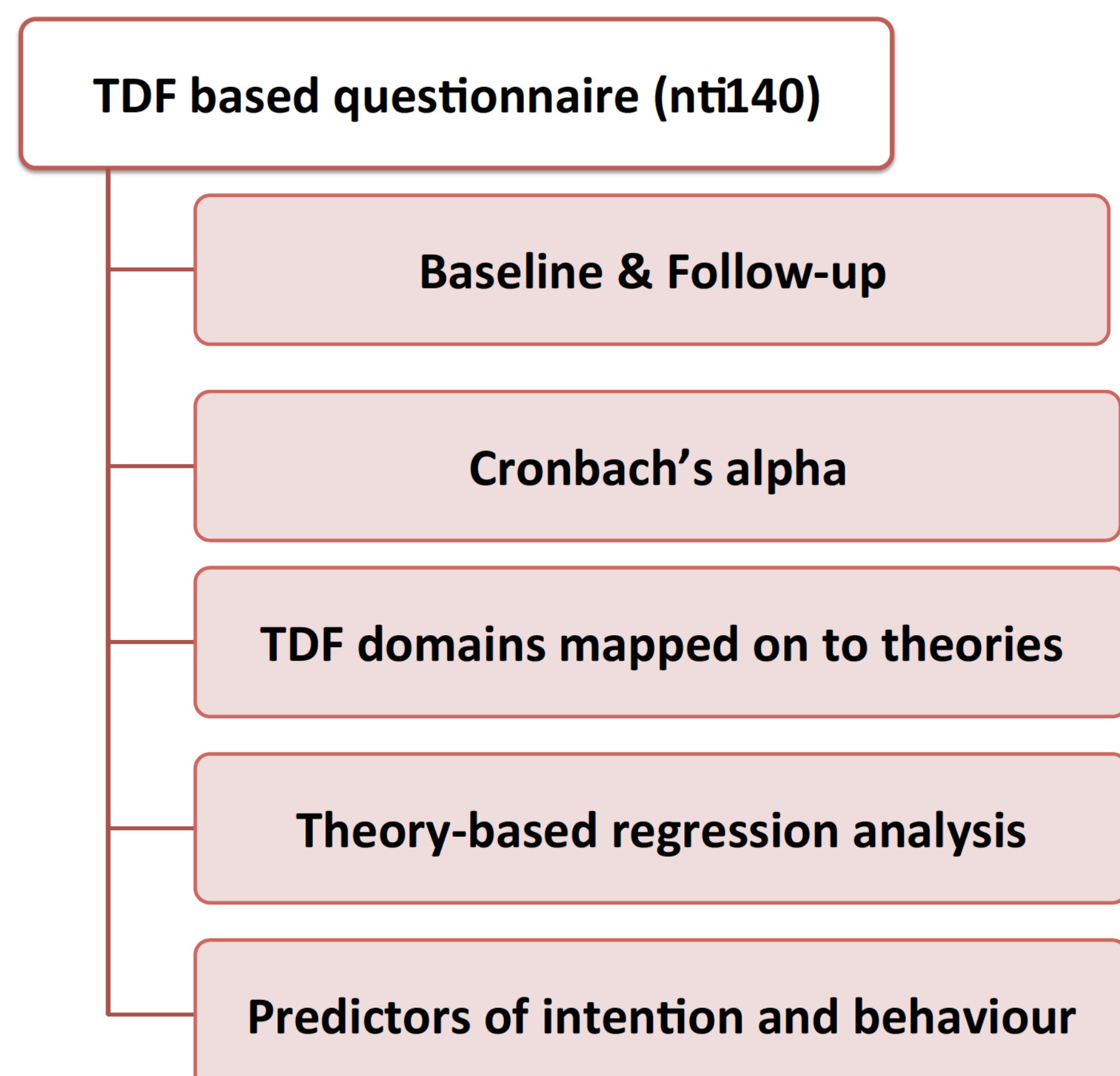
### METHODS & RECRUITMENT

- Prospective TDF based questionnaire study (phase 2)
- Informed by preceding TDF-based interview study (phase 1)
- Correlational design (baseline & follow-up)
- Hospitalised patients age ≥16
- With a planned short-term urinary catheter (up to 14 days)
- From medical and surgical wards

### ANALYSIS

INTENTION = Self-efficacy + risk perception + outcome expectation + social support

BEHAVIOUR = Self-efficacy + risk perception + outcome expectation + intention (SCT) + social support + habit



### RESULTS

- 95% response rate to follow-up

**INTENTION MODEL: (MEAN<sub>ti</sub>4.21, SD<sub>ti</sub>2.38, R<sup>2</sup><sub>adj</sub> <sub>ti</sub> 0.23)**

- Self-efficacy (MEAN=3.77, SD=1.42)
- Outcome expectations (MEAN=4.44, SD=1.45)
- Social support (MEAN=3.91, SD=2.01)

***SCT constructs predicted medium amount of variance to patient's INTENTION***

**BEHAVIOUR MODEL: (MEAN<sub>ti</sub>1.01, SD<sub>ti</sub>1.43, R<sup>2</sup><sub>adj</sub> <sub>ti</sub> 0.03)**

- Habit (MEAN=4.09, SD=1.93)

***Habit predicted small amount of variance to patients' BEHAVIOUR***

### CONCLUSIONS

- First study to explore patient related barriers and enablers to urinary catheter care and its duration using a **systematic theory-based approach**.
- Findings show that patients had the intention to engage with HCPs to advocate timely catheter removal but most patients are not yet engaging in this behaviour.
- Future intervention targeting *self-efficacy* and *social support* could encourage patients to prompt HCPs for early catheter removal leading to fewer CAUTIs.