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Psychological recovery after critical illness

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Extent of the problem – psychological dysfunction

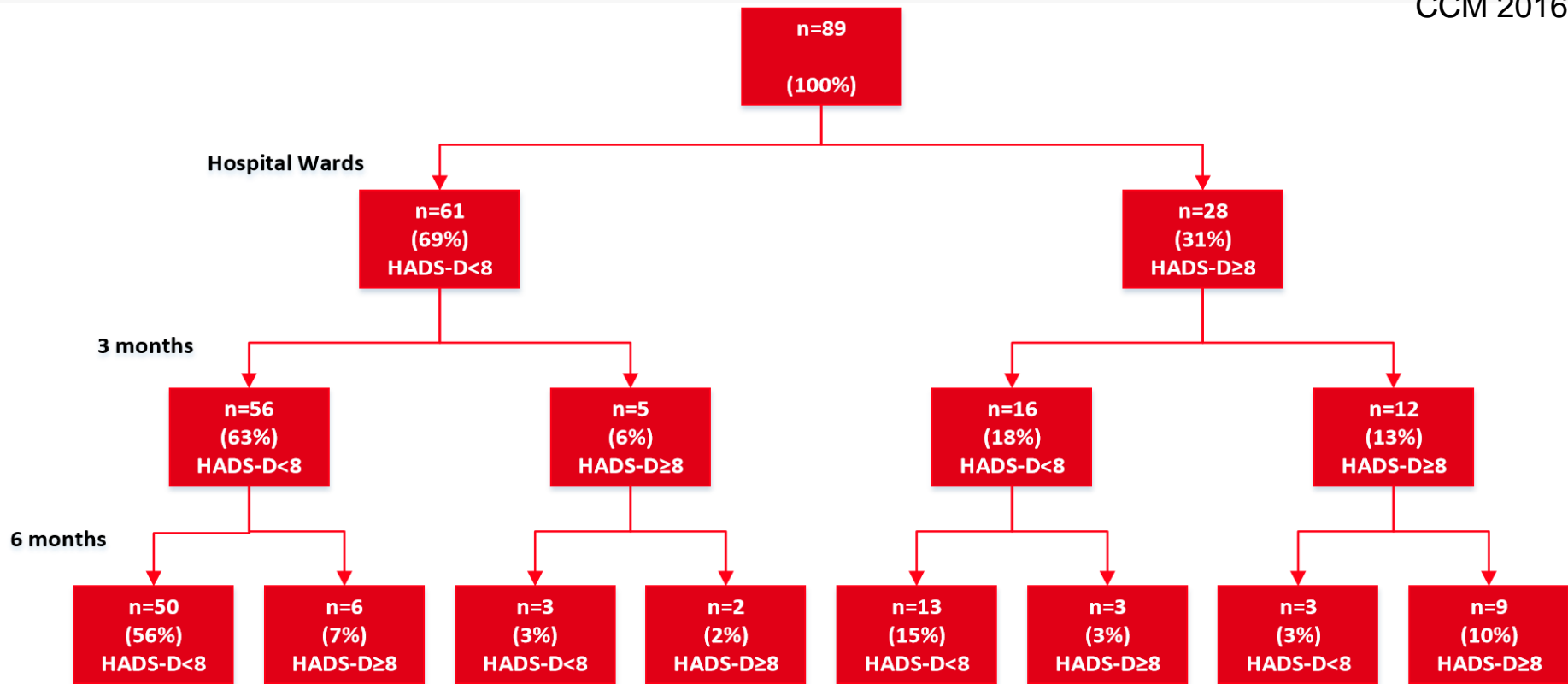
	2 – 3 mths (1080 pts/12 studies)	6 mths (760 pts/7 studies)	12 – 14 mths (1041 pts/6 studies)
Anxiety (Nikayin et al 2016)	32%	40%	34%
Depression (Rabiee et al 2016)	29%	34%	29%
		1 – 6 mths (4260 pts/36 studies)	7 – 12 mths (698 pts/5 studies)
PTSS/PTSD (Parker et al 2015)		25 – 44%	17 – 34%

Trait Anxiety But Not State Anxiety During Critical Illness Was Associated With Anxiety and Depression Over 6 Months After ICU

Maria I. Castillo, RN, BN (Honors)^{1,2,3}; Marie L. Cooke, RN, PhD^{1,2}; Bonnie Macfarlane, BSc, MPH^{1,2,3}; Leanne M. Aitken, RN, PhD, FACN, FAAN, FACCCN^{1,2,3,4}

CCM 2016

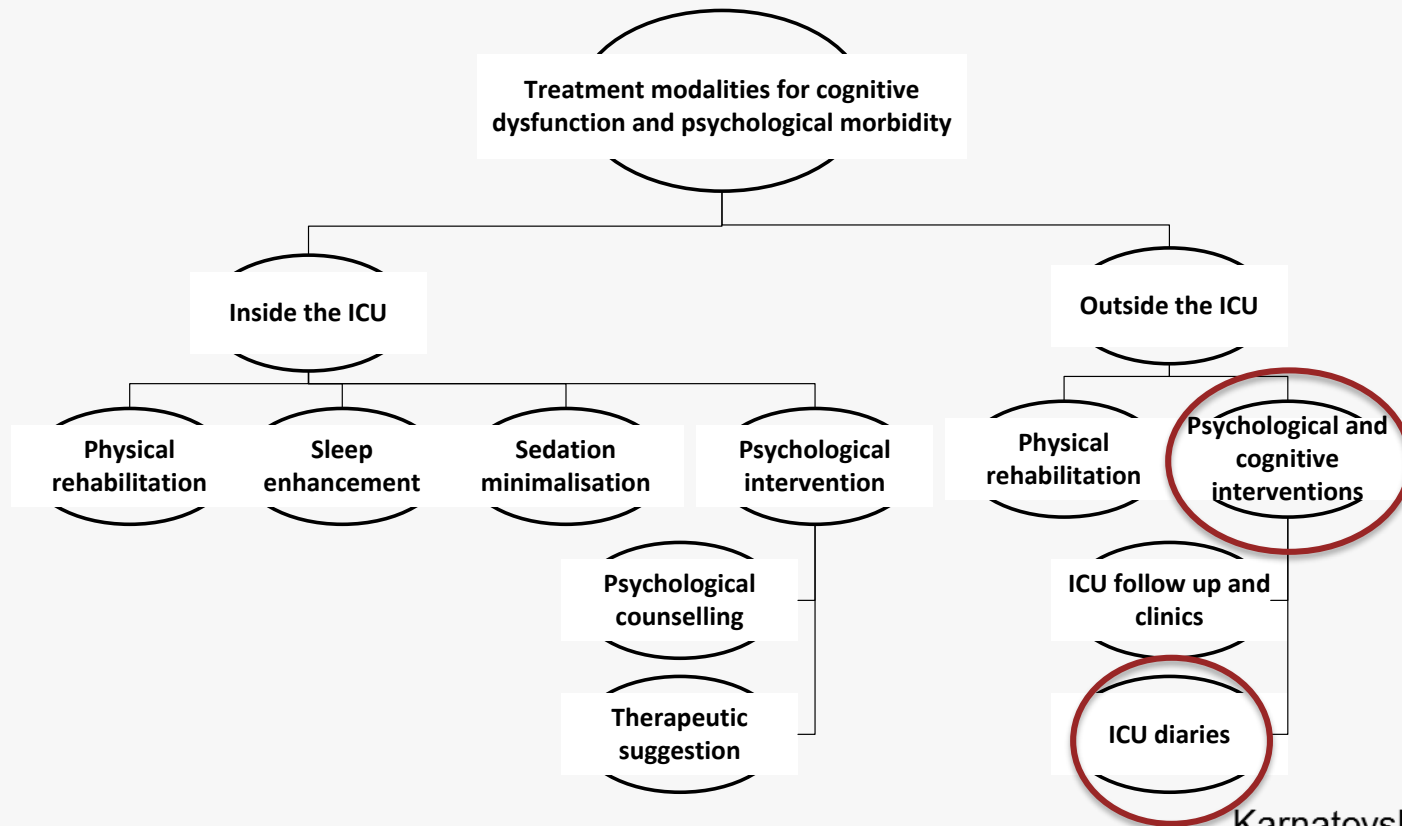
Path of recovery: depression



Risk factors for psychological dysfunction

- Anxiety – psychiatric symptoms during admission, memories of in-ICU delusional experience (Nikayin et al, 2016)
- Depression – pre-ICU psychologic morbidity, in ICU psychologic distress (Rabiee et al, 2016)
- PTSD – in ICU benzodiazepines, post-ICU memories of a frightening ICU experience (Parker et al, 2015)
- Relationship with other aspects of recovery, e.g. physical function

When and how to intervene



What do we mean by 'mixed methods'?

- Research in which both qualitative and quantitative approaches or methods are used to collect & analyse data, with the findings integrated in a single study or programme of inquiry (Tashkorri & Creswell, 2007)
- Sometimes conceptualised as:
 - **Qualitative – Quantitative**
 - **Qualitative** – Quantitative
 - Qualitative – **Quantitative**

ICU Diaries

- What is a diary?
 - Written by staff and/or family – not the patient
 - Variation in content but might include:
 - Summary of reason for admission
 - Clinical highlights of day
 - Any activities, e.g. walking, trip to operating room or CT scan
 - Visitors
 - Outside happenings – e.g. sport, weather etc
 - Might include photos
 - Variable length and number of entries
- Provision to patient:
 - Late in ICU stay or after ICU
 - With or without explanation & counselling



ICU Diaries

Aitken et al. *Critical Care*. 2013; 17:253
<http://dx.doi.org/10.1186/cc11782>



REVIEW

The use of diaries in psychological recovery from intensive care

Leanne M Aitken^{1,2*}, Janice Rattray³, Alastair Hull⁴, Justin A Kenardy^{5,6}, Robyne Le Brocq⁵ and Amanda J Ullman⁷



2014

- Primarily descriptive studies, only 2 RCTs
 - “inadequate evidence to support their effectiveness in improving psychological recovery after critical illness”
 - Benefit identified in post-hoc analysis related to PTSD in 1 sub-group
- Primary purpose described as being to fill in memory
- Highly selective, samples
- Patient & family not always considered separately
- Variable interventions & outcomes
- Ethical & legal issues around diary not addressed
- Lack of clarity regarding potential harm

Intensive care diaries reduce new onset post traumatic stress disorder following critical illness: a randomised, controlled trial

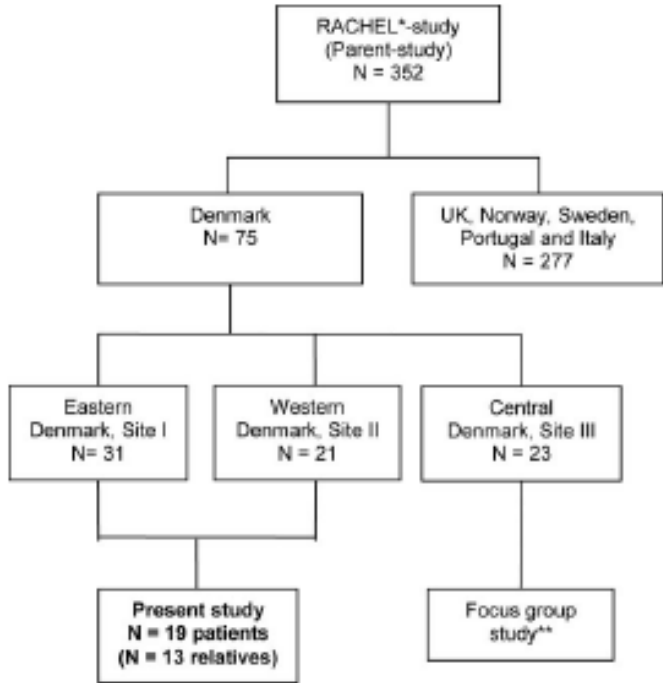
Christina Jones^{1,2}, Carl Bäckman³, Maurizia Capuzzo⁴, Ingrid Egerod⁵, Hans Flaatten⁶, Cristina Granja⁷, Christian Rylander⁸, Richard D Griffiths^{1,2*}, the RACHEL group

- 352 pts in 12 hospitals across 6 European countries
- Results:
 - Reduced incidence of new cases of PTSD at 3 months (13% vs 5%, $p=0.02$)
- Problems:
 - No baseline of PTSD (not possible as diagnosis cannot be made early)
 - PTSS used to show similarity of groups at baseline
 - No difference in PTSS at 3 mths
 - Equal numbers in both groups found their ICU experience traumatic (PDS)
 - *Post-hoc analysis* – subgroup analysis - PTSS ≥ 45 at 1 mth - ↓ PTSS intervention group

Constructing the illness narrative: A grounded theory exploring patients' and relatives' use of intensive care diaries

Ingrid Egerod, PhD; Doris Christensen, MHS; Katherine Hvid Schwartz-Nielsen, MHS;
Anne Sophie Ågård, MSN

(Crit Care Med 2011;



Legend: *RACHEL (Raising Awareness, after Critical illness, of adverse Health Events in the Long-term) ref. (3)
**Ref (46).

- Grounded theory – explore how pts and relatives used the diary
- Some considered the initial reading of diary as ‘unpleasant’, especially when ‘premature’
- Information in diary was considered incomplete, but it was a catalyst for further conversation
- patient not always interested in diary but felt relieved ‘because the diary could entertain his wife and spare him the involvement’



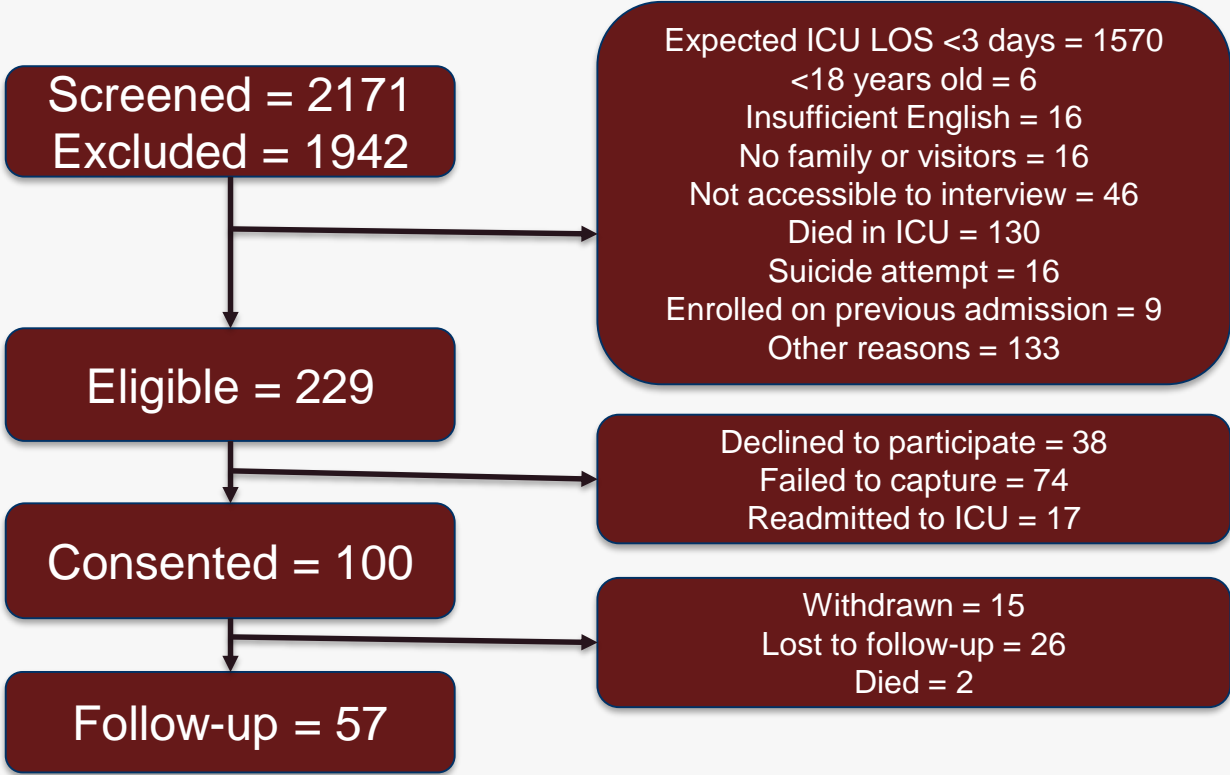
Perspectives of patients and family members regarding psychological support using intensive care diaries: An exploratory mixed methods study[☆]



Leanne M Aitken, PhD, FACN, FAAN^{a,b,c,*}, Janice Rattray, PhD, MN, DipN, RGN, SCM^d, Justin Kenardy, PhD, BSc(Hons)^{e,f}, Alastair M Hull, MD, FRCPsych^{g,h}, Amanda J Ullman, RN, MAppSci^b, Robyne Le Brocq, BSW, MSocSi, PhDⁱ, Marion Mitchell, BN(Hon), PhD^{c,j}, Chelsea Davis, RN, BN, GCertIntCareNurs^c, Maria I Castillo, RN, PhD^{c,k}, Bonnie Macfarlane, BHSc(Public Health), MPH (Epidemiology and Biostatistics)^{b,c}

DISCUSS: Methods

- Design: exploratory mixed-methods study in tertiary, metropolitan hospital
- Participants: General ICU patients ICU LOS ≥3 days & relatives
- Semi-structured interviews at 3-5 months after ICU discharge
- Psychological distress:
 - Kessler-10 Psychological Distress Scale (K10)
 - Post-traumatic Stress Disorder Symptom Checklist – Civilian V5 (PCL)
- Perceptions of benefit of an ICU diary: four-point Likert scale (agree/disagree)
- Thematic analysis of perceptions of diary preferences
- Ethics approval & informed consent



Patients

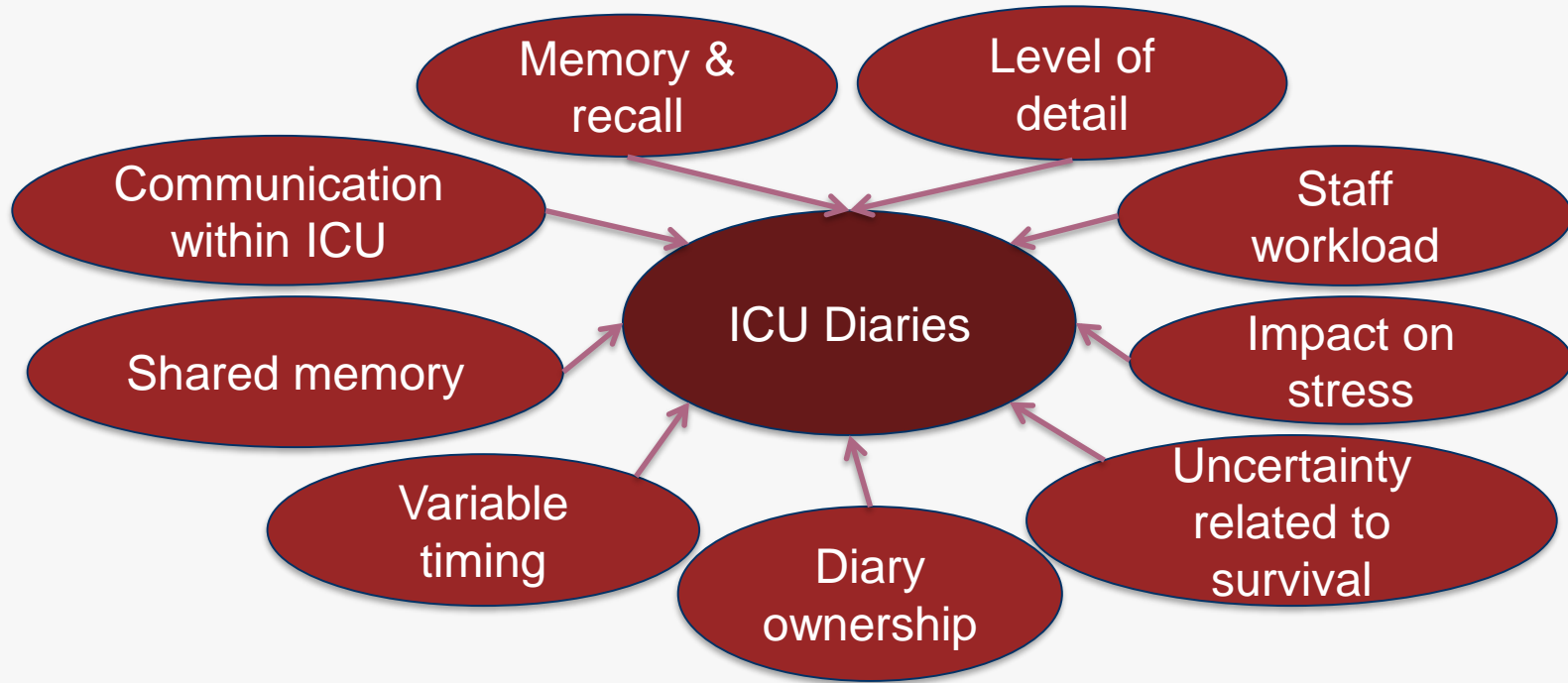
Patients' characteristics		n=100
Gender (male)		63 (63%)
Age (years) – mean (SD)		53.8 (16.2)
Reason for ICU admission	Medical	42 (42%)
	Surgical	30 (30%)
	Trauma	28 (28%)
Mechanical ventilation (invasive & non-invasive)		91 (91%)
APACHE III		Median 60.0 (IQR: 47.5-79.0)
ICU LOS (days)		Median 6.4 (IQR: 4.3-9.6)
Hospital LOS (days)		Median 23.9 (IQR: 16.3 – 38.8)

Psychological health & diary preference

■ 47/57 (83%) patients considered a diary would be helpful

	Diary – helpful n (%)	Diary – not helpful n (%)	p-value (Fisher's exact)
PCL-5			
Symptomatic	6 (13)	1 (10)	1.0
Asymptomatic	41 (87)	9 (90)	
K10			
Distressed	24 (51)	2 (20)	0.092
No distressed	23 (49)	8 (80)	
Psychological distress (K-10 ≥20 and/or symptomatic PCL-5)			
Yes	25 (53)	2 (20)	0.083 (post hoc power 0.47)
No	22 (47)	8 (80)	

Perceptions of diaries



Implications

- Variable views about the desire to ‘remember’
- If psychological health not related to desire for diary / other intervention how do we identify who will benefit?
- Diary & other information interventions need to be rigorously tested – particularly to ‘doing no harm’
- Different structures / formats likely to meet different patient & family needs

Relatives perception of writing diaries for critically ill. A phenomenological hermeneutical study

NICC, 2016

Anne H. Nielsen and Sanne Angel

British Association of Critical Care Nurses • Vol 21 No 6

- Phenomenological – hermeneutic study
- Interviews with 7 relatives
- Explored the role of diaries for relatives who noted it as:
 - A vehicle to express both positive and negative feelings
 - “a meaningful activity”
 - “allowed them to create a personal space for reflection in the ICU”
 - “writing for my own sake”
 -Asking the relatives to author a diary for the patient can be an important nursing intervention....

The creation of patient diaries as a therapeutic intervention – for whom?

There is now widespread evidence of the potential adverse psychological impact of critical illness (Parker *et al.*, 2015; Nikayin *et al.*, 2016; Rabiee *et al.*, 2016). While many patients will show great resilience, others

types of trauma needs to be recognized, but the potential advantages should also be embraced. Reinventing the wheel is likely unnecessary, and empirically supported interventions in other populations should

of diaries not for the critically ill patient during recovery but specifically for relatives after having a family member in critical care.

Noteworthy amongst the findings are the relatives describing their involvement

LM Aitken, J Rattray, A Hull;
NICC 2017; 22(2): 67 - 68

- The wish to help
- Should diaries only be read by those who wrote them?
- Reframing the intervention – possibly 2 different interventions for patients and relatives

Discharge summary

- Pilot cluster RCT
- 2 information books:
 - 1 for patient
 - 1 for family
- Not powered for outcome in this study – effect remains unknown (286 needed for effectiveness study)
- User experience questionnaire:
 - 100% of patients & 96% of ward staff rated summary as ‘of value’
 - Some pts and relatives felt information was too basic or did not reflect pt’s experience completely

Providing critical care patients with a personalised discharge summary: A questionnaire survey and retrospective analysis exploring feasibility and effectiveness

Suzanne D. Bench^{a,*}, Karina Heelas^b, Catherine White^c,
Peter Griffiths^d

Intensive and Critical Care Nursing (2014) 30, 69–76

BMJ Open Evaluating the feasibility and effectiveness of a critical care discharge information pack for patients and their families: a pilot cluster randomised controlled trial

2016

Suzanne Bench,¹ Tina Day,² Karina Heelas,³ Philip Hopkins,³ Catherine White,⁴ Peter Griffiths⁵

Name: [Click here to enter patient name](#)

You have been in [Click here to enter name of ICU Unit](#) at [Click here to enter name of hospital](#) Hospital

You came in on [Click here to enter ICU admission date](#)

And have been here for [Click here to enter ICU LOS](#) days

You were discharged to [Click here to enter discharge ward](#) ward on [Click here to enter ICU discharge date](#)

You came into Intensive Care because [Click here to enter main reason for admission](#)

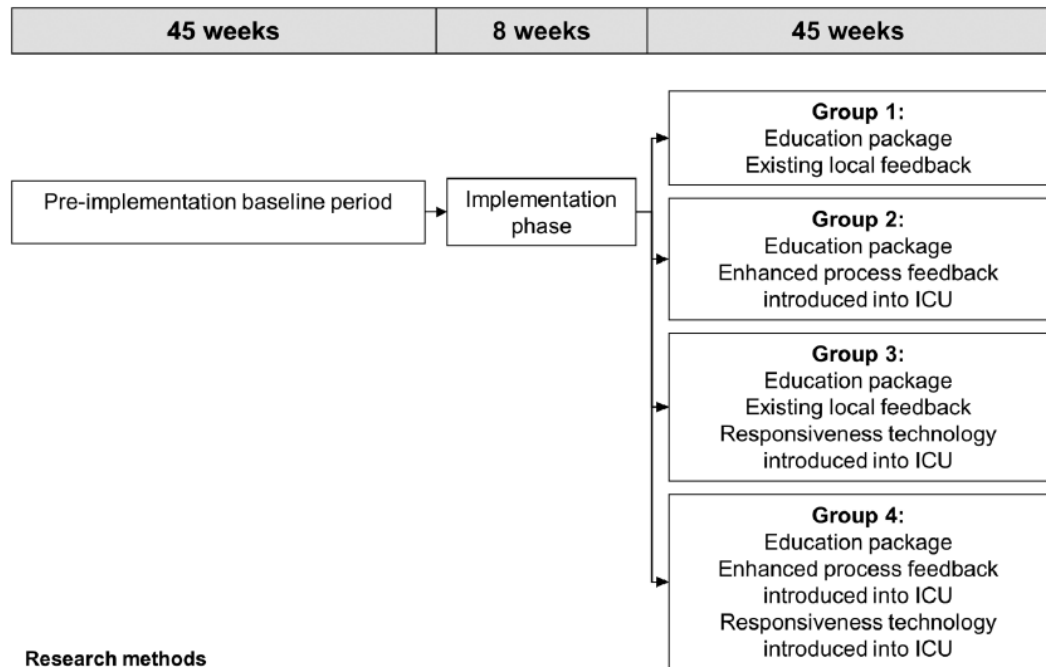
You got to Intensive Care by:

- Ambulance
- Husband, wife, family or friend brought you
- Transferred from another ward or hospital

Please complete below details of the patient’s diagnosis, treatments and procedures, how the patient has seemed and any other relevant information.

[Click here to enter a summary of the important elements of the patient’s ICU journey](#)

BMJ Open Rationale, design and methodology of a trial evaluating three strategies designed to improve sedation quality in intensive care units (DESIST study)



Research methods

Quantitative data collection: process and outcome measure

Focus groups with clinical staff

Action research during implementation

Focus groups with clinical staff

Timothy S Walsh,¹ Kalliopi Kydonaki,¹ Jean Antonelli,² Jacqueline Stephen,² Robert J Lee,³ Kirsty Everingham,¹ Janet Hanley,⁴ Kimmo Uutelo,⁵ Petra Peltola,⁵ Christopher J Weir,^{3,4} for the Development and Evaluation of Strategies to Improve Sedation practice in intensive care (DESIST) study investigators

So what can we take from this?

- Need for interventions to optimise psychological function after critical illness
- Essential for us to test effectiveness and check no harm
- Different ways and time points to intervene
- Mixed methods:
 - Methods driven by research question
 - Quantitative data:
 - Extent
 - Effectiveness
 - Qualitative data:
 - Refine intervention
 - Clarify acceptability / user perceptions
 - Consider temporal nature & relative priority of different methods



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