

Fatigue after Paediatric intensive care



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Adult ICU literature:

- Fatigue reported by >50% in year following discharge, associated with degree of muscle wasting and loss of weight during admission and lower mood/QoL afterwards

*Refs: Chaboyer & Grace 2003: Griffiths & Jones 2007:
Herridge et al 2003: Steenbergen et al 2015*



What about paediatric ICU patients?



Study

- n=97 children
- Aged 7-17y
- Reason for admission
 - Traumatic brain injury n=36
 - Other emergency n=46
 - Elective n=15
- Mean length of stay 4.4 days
- Ventilated 93%

Ref: Colville & Pierce PCCM 2013

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PedsQL™

Multidimensional Fatigue Scale

Standard Version

CHILD REPORT (ages 8-12)

DIRECTIONS

On the following page is a list of things that might be a problem for you. Please tell us **how much of a problem** each one has been for you during the **past ONE month** by circling:

- 0 if it is **never** a problem
- 1 if it is **almost never** a problem
- 2 if it is **sometimes** a problem
- 3 if it is **often** a problem
- 4 if it is **almost always** a problem

There are no right or wrong answers.
If you do not understand a question, please ask for help.

In the past **ONE** month, how much of a **problem** has this been for you ...

GENERAL FATIGUE (problems with...)	Never	Almost Never	Sometimes	Often	Almost Always
1. I feel tired	0	1	2	3	4
2. I feel physically weak (not strong)	0	1	2	3	4
3. I feel too tired to do things that I like to do	0	1	2	3	4
4. I feel too tired to spend time with my friends	0	1	2	3	4
5. I have trouble finishing things	0	1	2	3	4
6. I have trouble starting things	0	1	2	3	4

SLEEP/REST FATIGUE (problems with...)	Never	Almost Never	Sometimes	Often	Almost Always
1. I sleep a lot	0	1	2	3	4
2. It is hard for me to sleep through the night	0	1	2	3	4
3. I feel tired when I wake up in the morning	0	1	2	3	4
4. I rest a lot	0	1	2	3	4
5. I take a lot of naps	0	1	2	3	4
6. I spend a lot of time in bed	0	1	2	3	4

COGNITIVE FATIGUE (problems with...)	Never	Almost Never	Sometimes	Often	Almost Always
1. It is hard for me to keep my attention on things	0	1	2	3	4
2. It is hard for me to remember what people tell me	0	1	2	3	4
3. It is hard for me to remember what I just heard	0	1	2	3	4
4. It is hard for me to think quickly	0	1	2	3	4
5. I have trouble remembering what I was just thinking	0	1	2	3	4
6. I have trouble remembering more than one thing at a time	0	1	2	3	4



Norms n=209



Hypotheses

- I PICU survivors would report more fatigue than healthy children

- II Patients with head injury would report worse cognitive fatigue than other PICU survivors

Psychometrics/Feasibility

- Cronbach's alpha = 0.88 for total score
- Cronbach's alpha = 0.65-0.87 for subscales
- Validity vs general HRQoL $r=0.37$ ($p<0.05$)
- Floor effect 0% and Ceiling effect 6% ($<15\%$)
- Missing item rate $<1\%$
- Administration time <5 mins



Hypothesis I: Fatigue in PICU sample at 3m would be worse than for healthy sample

Mean (SD) total fatigue score for group
= 79.5 (16.2) v 81.8 (12.5) norms, $p=0.218$ ns



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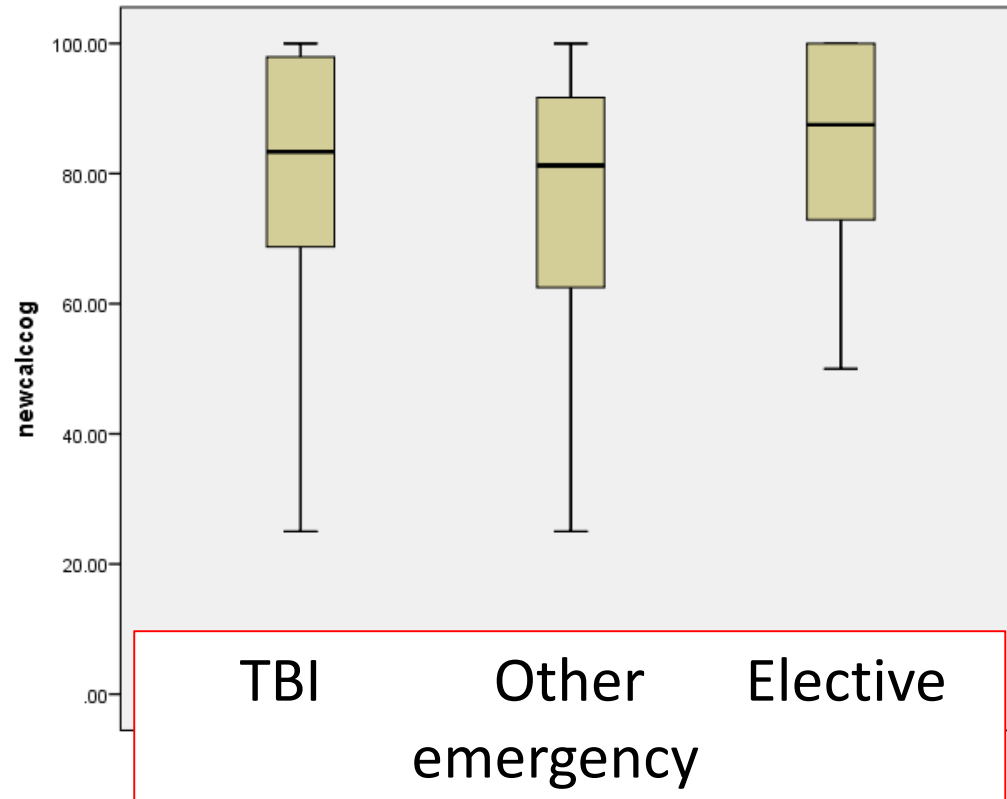
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NOT UPHHELD

Hypothesis II: Cognitive fatigue higher in TBI subgroup

- 'Other emergency' group reported worse cognitive fatigue

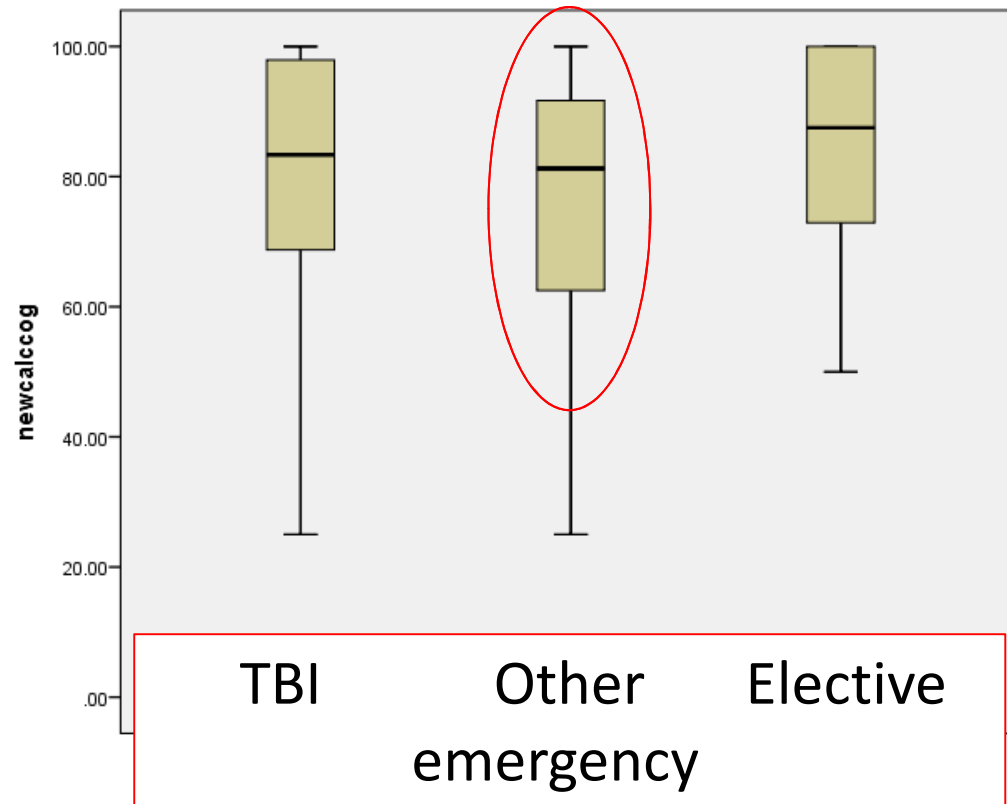
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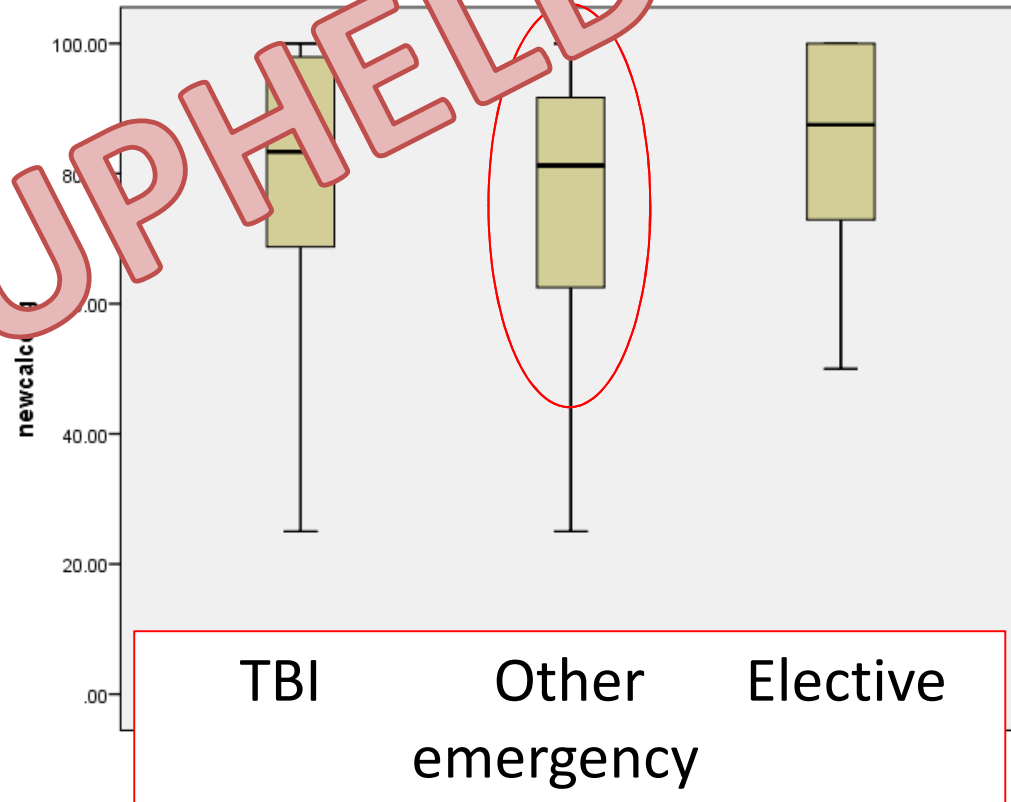


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- No correlation with GCS on admission $r=0.074$ ns
- TBI group sleeping better than norms, $p=0.014^*$
- Severe fatigue (ie $>2SD$) reported in 7% Elective, 8% TBI and 11% other emergency at 3m



Conclusions



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The PedsQL Multidimensional Fatigue Scale is a useful tool to assess it – brief, acceptable, reliable and measures multi-faceted aspects of fatigue



Thanks for listening

