

Does specialised delirium care improve outcomes? A randomised controlled trial

Lucy Bradshaw, Kathy Whittamore, Sarah Goldberg, John Gladman,
Rowan Harwood

Division of Rehabilitation and Ageing , University of Nottingham

lucy.bradshaw@nottingham.ac.uk

rowan.harwood@nuh.nhs.uk

This presentation presents independent research funded by the National Institute for Health Research (NIHR) under its Programme Grants for Applied Research and Research for Patient Benefit (RfPB) programmes (RP-PG-0407-10147 & PB-PG-0110-21229). The views expressed are those of the author and not necessarily those of the NHS, the NIHR or the Department of Health.



UNITED KINGDOM • CHINA • MALAYSIA



Delirium in older people in general hospitals

- 30% of older hospital patients have delirium
- Difficult to diagnose, especially in patients with dementia
- Associated with poor outcomes
- Often persists



The University of
Nottingham

UNITED KINGDOM • CHINA • MALAYSIA



NHS
National Institute for
Health Research

Medical and Mental Health Unit established in Nottingham in 2009 for older patients with suspected delirium or dementia



The Medical and Mental Health Unit (MMHU)

- Enhancements to ward:
 - Specialist mental health staff
 - Staff training in delirium and dementia
 - Purposeful activities
 - Adaptations to the environment
 - Proactive and inclusive approach to family caregivers
- Delirium prevention measures

Evaluation

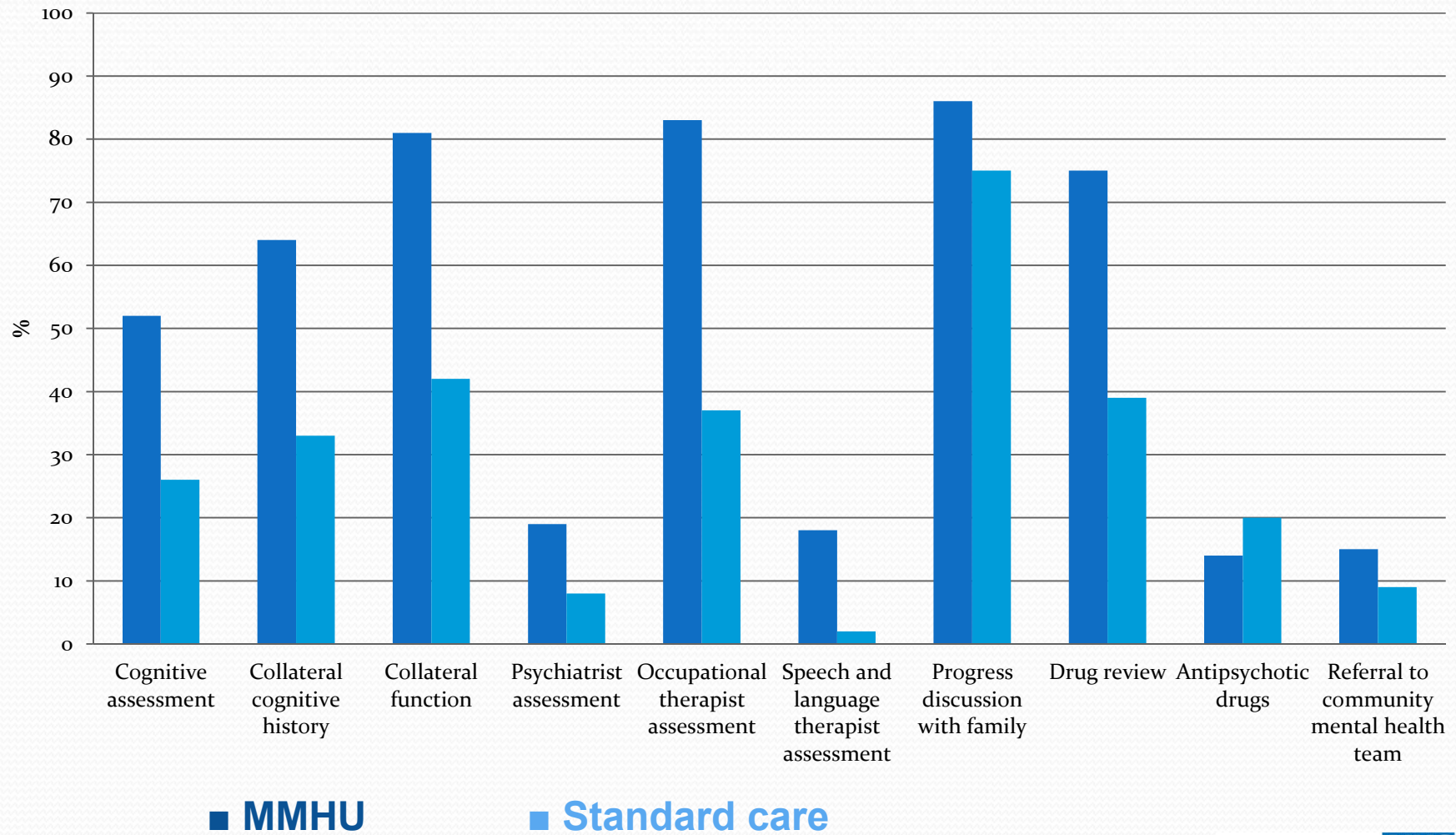
- 600 patients randomised to MMHU or standard care
- Delirium assessed using the Delirium Rating Scale
- Follow-up at 90 days for patient outcomes
- Carer satisfaction assessed after discharge
- Patient experience assessed by non-participant observation

Participant characteristics

	MMHU (n = 165)	Standard care (n = 181)
Median age	84y	84y
Care home resident*	41%	28%
Median MMSE	7/30	9/30
Median Barthel ADL	7/20	7/20
Prior dementia*	80%	69%
Presented with fall	34%	39%
Any hallucinations	53%	50%
Any delusions	71%	64%
Any agitation	75%	74%
Poor sleep	56%	64%
Problems eating	59%	59%

* p < 0.05

Process of care



Outcomes at 90 days

	MMHU (n = 165)	Standard care (n = 181)	P-value (adjusted)
Mean days at home	35d	34d	0.58
Not returned home	35%	39%	0.73
Died	29%	31%	0.90
Median initial LoS	13d	13d	0.02
Readmission	28%	32%	0.37
Total LoS in 90d	16d	17d	0.03
Move to care home	30%	36%	0.40

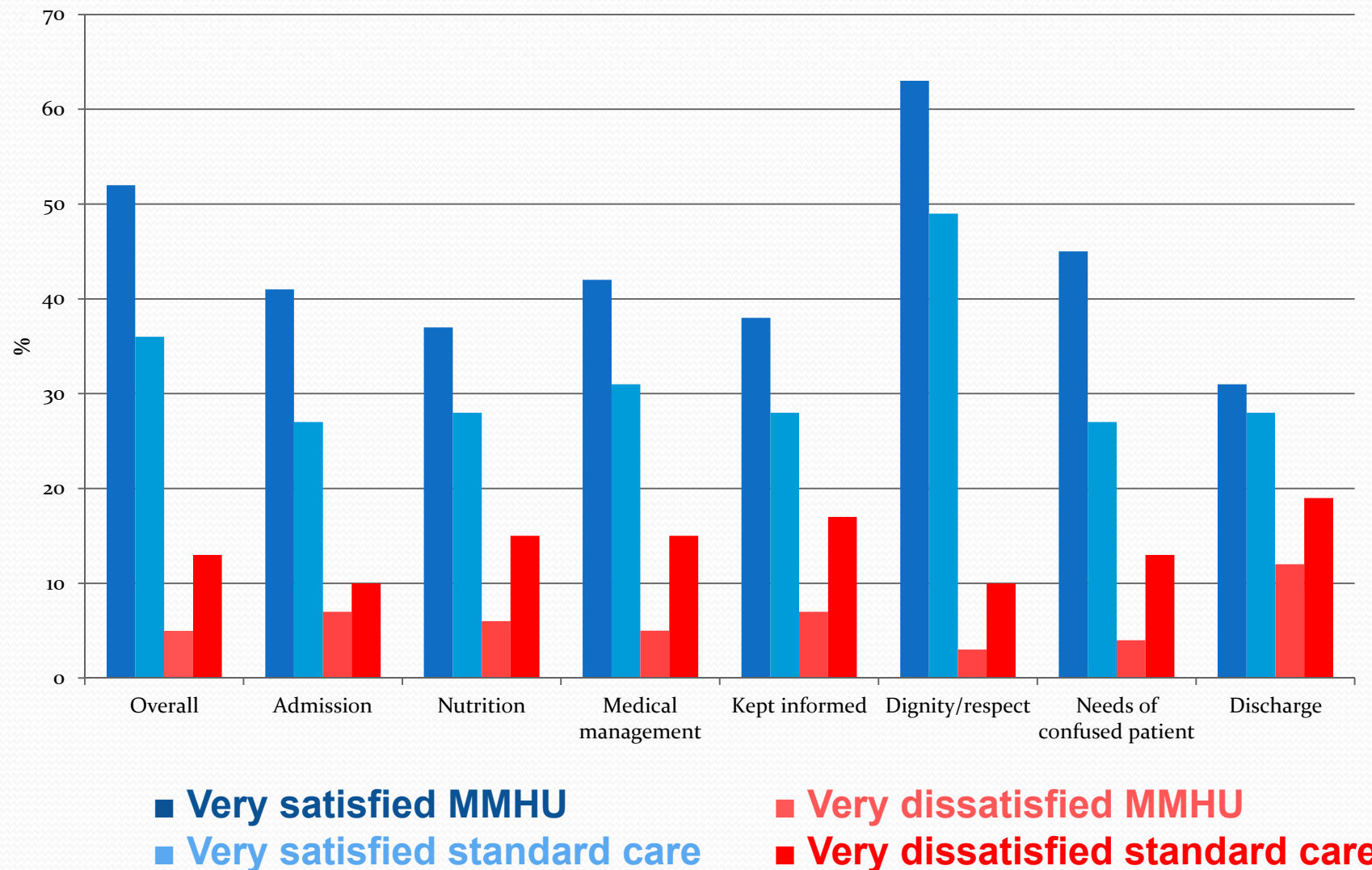
LoS – Length of stay

Experience of care

	MMHU (n = 46)	Standard care (n = 44)
Positive Mood/Engagement*	79% (68 - 91%)	68% (61 - 79%)
Negative Mood/Disengaged*	11% (8 - 21%)	20% (11 - 27%)
Positive staff interactions**	4 (1 - 8)	1 (0 - 3)
Negative staff interactions	4 (2 - 7)	5.5 (3 - 10.5)
Noise**	79% (74 - 88%)	92% (81 - 96%)
Persistent vocalisation*	21% (4 - 40%)	6% (2 - 22%)

Median (IQR), * p < 0.05, ** p < 0.001

Carer satisfaction



Health status outcomes at 90 days

	MMHU (n = 117)	Standard care (n = 125)
Median MMSE/30	11	12
MMSE improved >3points	35%	44%
Median total NPI/144	22	22
Median Barthel ADL/20	9	11
Median Handicap/100	33	33
Median proxy DEMQOL/124	94	91

MMSE: Mini-Mental State Examination, cognitive function, higher scores better cognition

NPI: Neuropsychiatric Inventory, behavioural and psychological symptoms, higher scores more symptoms of BPSD

ADL: Activities of daily living, higher scores better function

Handicap: London Handicap Scale, lower scores more handicap

DEMQOL: Dementia Quality of Life scale, higher scores better QoL

Conclusion

- Specialist delirium care did not improve health status at 90 days compared to standard care
- Improvements were observed in patient experience of care and carer satisfaction