

Portsmouth Hospitals

Quality Improvement:

NHS Trust

Improving patient sleep quality on Intensive Care, Queen Alexandra Hospital, Portsmouth

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Introduction:

Sleep disruptions and poor sleep are common in ICU patients. Rest is important for physiological and psychological recovery, and poor sleep may contribute to prolonged hospital stay and delirium. Multiple studies have been carried out to assess the efficacy of sleep-promoting interventions in ICU with limited and non-sustained benefit.

Objective:

- To identify factors contributing to poor sleep quality. •
- To improve patient-assessed quality of sleep in ICU using modified Richards-Campbell Sleep Questionnaire (RCSQ). •
- To gather ideas and suggestions to improve sleep quality in ICU

Method:

- Modified Richards-Campbell Sleep Questionnaire (RCSQ) ٠ with 100mm visual analogue scale was used.
- Factors affecting patient sleep were identified by using ٠ open ended questions.
- Non-ventilated patients who were able to • understand and complete the RCSQ were included.
- 2 cycles were performed with a total of 38 patients.

	Quality Improvement Project				Fact	ion	3: Others
Title: Improving Patient Sleep Quality in ICU			Section 5: Others				
					1	. w	hat is stopping you from getting a good sleep last night?
Section 1: General Information 1. Patient Initial:							
 Reason f Duration Any Slee 	Male Female Female or ITU Admission: of ITU Stay (Days): Disturbances/Difficulty prior to admission: Yes No No vow do you cope?				2		there anything that would help improve sleep in ICU? r example: reduce light, reduce noise, music therapy, uninterrupted sleep time
Section 2: Ric Date:	hard Campbell Sleep Questionnaire				3		ere you offered eye mask and ear plugs or given medication to help with sleep?Eye MaskfYES', does it work?
Measure	Question	Score				Ľ	Ear Plugs
Sleep Depth	My sleep last night was:						If 'YES', does it work?
						C	Pharmacological Intervention If "YES", what was given, does it work?
Sleep Latency	Light Sleep Deep Sleep Last night, the first time I got to sleep, I:						
. ,					4	. If	you were offered eye mask or ear plugs, would you use them? If NOT, why?
	Just never could fall asleep Fell asleep almost immediately					_	
Awakenings	Last night, I was:					-	
	0 100						
Returning to	Awake all night long Awake very little Last night, when I woke up and was awakened, I:						
Sleep							
	Could not get back to sleep Got back to sleep immediately						
Sleep Quality	I would describe my sleep last night as:						

- 17 patients in 1st cycle, 21 patients in 2nd cycle.
- The QI project was carried out from 1st June 2021- 31st July 2021.

	0	100		
	A bad night's sleep	A good night's sleep		
loise I would describe the noise level last night as:				
	0	100		
	Very Noisy	Very Quiet		

Figure 1: Questionnaire with RCSQ used for this project

Factors patients	Percentage of
reporting that have	patients reporting
affected sleep in	issue as affecting
ICU	sleep
Noise	43%
Pain and discomfort	27%
Other	27%
environmental	
Healthcare	11%
interventions	
Uncertain	29%
Lighting	8%

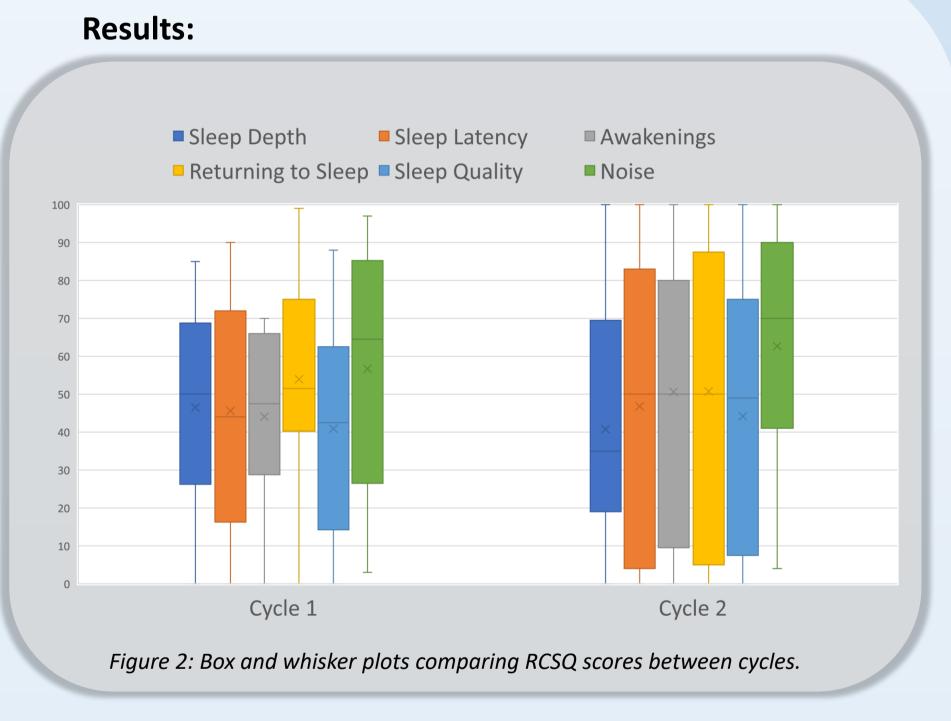


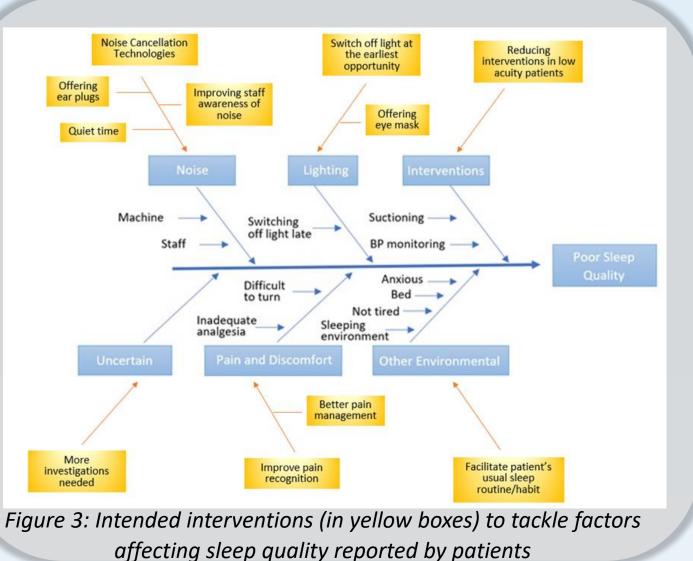
Table 1: Factors patients state affect sleep

Overall, the median scores for patient rated sleep depth was 36, sleep latency 49, sleep awakenings 50, ease of return to sleep 51.5, sleep quality 45 and noise 69.

There were no significant differences between the two cycles shown in Figure 2.

10 patients were offered eye mask and ear plugs during their stay in ICU, which increased marginally between cycle 1 to cycle 2 from 24% to 29%. Only 1 patient felt that eye mask and ear plugs helped improve their sleep in ICU, however 9/11 (82%) of those not offered simple interventions would have considered using these.

Conclusion:



The current patient rated sleep quality on our intensive care is similar to published reports using the RCSQ. However, given this low baseline, there are areas for improvement. The overall noise rating of ICU was better than expected, although 43% still stated it as a factor.

The initial cycles have tested feasibility and allowed finetuning of our methodology. The eventual aim will be for the bedside nurse to perform the questionnaire daily.

The project has allowed identification of factors patients believe are affecting their sleep. We plan on doing further cycles to tackle this multifactorial and complex problem.