Title: Decaffeination for Serenity: Enhancing Sleep Quality and Alleviating BPSD in Dementia Residents within an 8-Weeks Care Home Intervention

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Background

BPSD, such as agitation, anxiety, sundowning and sleep disturbances are prevalent among dementia residents in care homes. Dementia-related behavioural symptoms adversely affect in individual's quality of life, result in high demand of care (Kromhout et al., 2020). Caffeine intake has been associated with exacerbating these symptoms (Baeta-Corral, Johansson and Giménez-Llort, 2018). It is noteworthy that care staff currently utilize tea or coffee as a distraction strategy when residents become distressed. Hence, care home residents can easily consume 4-6 cups of tea or coffee daily. Additionally, when resident exhibit disruptive behaviour, pharmacological interventions are introduced, contributing to polypharmacy in dementia residents. This project aims to explore the potential benefits of substituting regular tea and coffee with decaffeinated alternatives, aiming to improve resident wellbeing and potentially reduce the need for pharmacological intervention.

Objective (SMART Goal)

Enhance sleep quality and reduce Behavioural and Psychological Symptoms of Dementia (BPSD) in care home residents by introducing decaffeinated tea and coffee. Target a 50% improvement within a 2 Month trial period, assessed through direct observation

Methods

The project uses the Plan-Do-Study-Act (PDSA) cycle methodology and Grantt chart to monitor the whole project progress

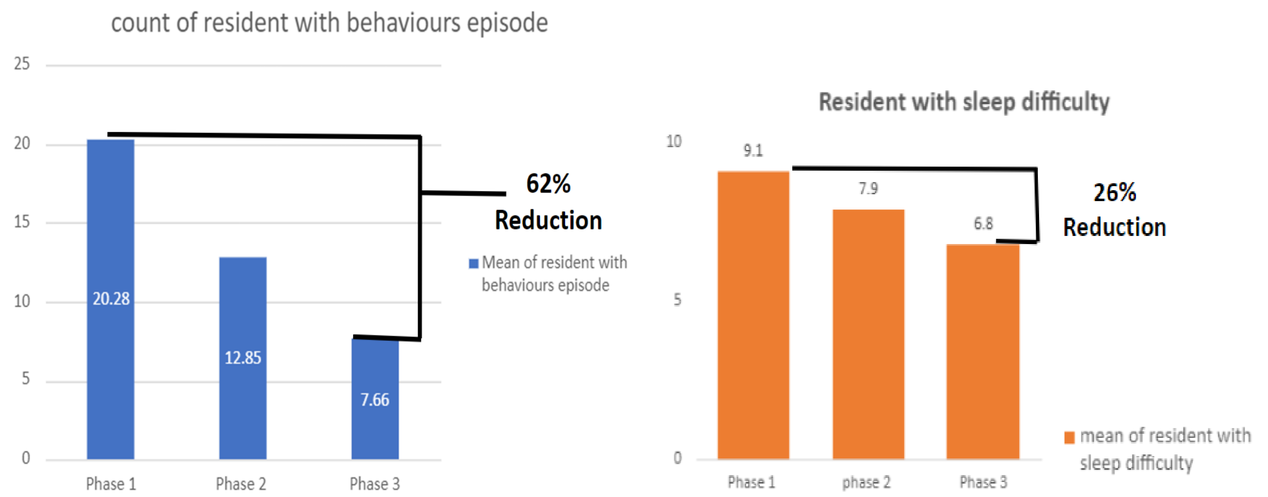
Intervention

All resident/representative gave consent to take part in the Decaf trial. Total of 38 resident participated in the trial. A simplified direct observation chart was used during the trial and team created the chart referred to Neuropsychiatric Inventory Nursing Home Version (NPI-NH) worksheet (Cummings, 1994)
Trial done in 3 phases.

Phase One(Baseline)	Phase Two(Gradual reduce caffeine intake)	Phase Three(Fully Decaf)
No changes to current practice and monitor the behaviours and sleep for 3 weeks 1st Jan – 21 Jan 24	Decaf tea/coffee will be introduced in certain timing replacing regular tea/coffee for 2 weeks to prevent caffeine withdrawal 22 Jan – 4th Feb 24	Replace regular coffee/tea to decaf for 3 weeks 5th Feb – 25 Feb 24

Result

The trial involved three phases: baseline monitoring, gradual reduction of caffeine intake and replacement with decaf drinks. Behavioural observations revealed a significant 62% reduction in residents displaying anxiety, agitation, irritability and aberrant motor behaviours between the baseline (Phase 1) and decaf intervention (phase 3). Additionally, there was a notable 26% decrease in residents experiencing sleeping difficulties during the same period.
These findings suggest that the intervention positively impacted resident well-being and may potentially reduce the need for pharmacological intervention



Continuous improvement & sustainability

Ensuring the sustainability of the decaffeination intervention also entails addressing ethical considerations related to resident autonomy, dignity and quality of life.
By incorporating ethical considerations into sustainability plan, care home can uphold residents' right, dignity and well-being while implementing and maintaining the decaffeinated intervention as part of their standard care practices

Conclusion

Trial has shown promising results in alleviating anxiety, agitation, irritability and aberrant motor behaviours among residents and some improvement in sleep quality.
The significant reduction in behavioural symptoms highlights the potential benefits of the non-pharmacological intervention.
Ethical considerations, will enable care homes to enhance resident wellbeing and minimize reliance on pharmacological treatments for BPSD.
This holistic approach reinforces the commitment to provide high-quality, person-centred care for individuals living with dementia in care home settings.

Reference
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