

An innovative approach to adequate oral fluids intake in elderly patients with dementia

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Background

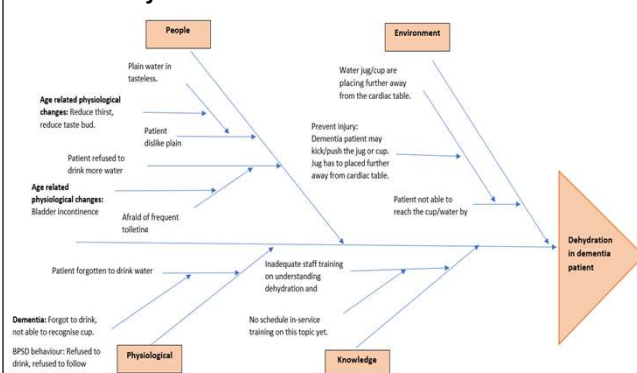
With the increase of age, the age-related changes affect the elderly and reduce thirst and lead to dehydration. Dehydration is a common complication in the elderly with dementia, physical limitation and environmental condition. Especially, patients with dementia who unable to meet self-care needs, including proper water intake is caused by the symptoms of dementia such as Amnesia, Aphasia, Apraxia, Agnosia, Anomia, chronic illness and physiological changes by ageing process.

In our 1D dementia ward, patients are refusing to drink water even though staff frequently approached patient or serve small frequent amount. Based on the intake/output chart, the average amount of fluids intake ranging from 250ml to 700ml. A further literature search and root cause analysis conducted with team members.

Objective

To achieve more than 20% increase of oral fluids intake among dementia patients in ward 1D by end of July 2022.

Problem Analysis



After analysing the root causes, the vote for “water is tasteless” was the highest. Thus, our team brainstorm and come out with 5 possible interventions with literature support.

Table below shows that “Offering flavoured drink” is the most effectiveness, sustainable and less time consume.

Possible intervention	Effectiveness	Sustainability	Cost	Time
1 Serve fluid in individual preference mug/cup/jug	√			√
2 Providing standardised amount of water with medications, fluid rounds twice daily	√		√	
3 Offering flavoured drink	√	√		√
4 High contrast colour of the cup and table ware				
5 Staff education training on importance of hydration with Dementia patient	√			

Implementation Plan

Thus, our team scheduled a flavoured fluids serving timetable with different flavour every day.

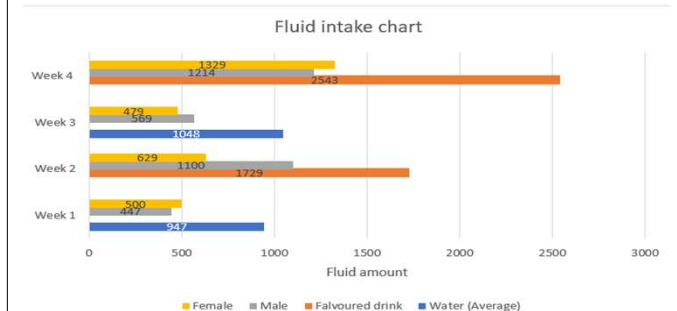
Fluids schedule chart

Date	20/6/22 to 26/6/22 (Week 1)	27/6/22 to 3/7/22 (Week 2)	4/7/22 to 10/7/22 (Week 3)	11/7/22 to 17/7/22 (Week 4)
Serve Plain water (200ml) at 10am	Achieved			
Serve flavoured drink (based on the schedule)		Achieved		
Serve plain water (200ml) at 10am			Achieved	
Serve flavoured drink (based on the schedule)				Achieved

Flavored drink chart

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Red date	Green Tea	Lemon grass	Chrysanthemum tea	Red date	Lime juice	Chrysanthemum tea
Inclusion criteria of sample selection	Patient with dementia, >60 years old. Total 14 patients (7 female, 7 male)					
Exclusion criteria of sample selection	Patients with fluid restriction					
Flavoured drinks	-The flavors chosen provided different color that attract patients' attention. -Reminiscent taste and smell of traditional. -Flavored with sweet and sour which stimulate their sense of taste.					
Sugar context	-Less than 15g of each drink as Dietician recommendation.					
Given drink at 10am	Encourage fluid intake more in the morning to prevent frequent urination at night. Fluids serving is between 9am to 10am to prevent patient refusal of lunch at 12pm.					
Water Temperature	-Neither too cold or too hot, maintained on constant					

Benefits/Results



Result

-To determine the effectiveness of the intervention, data was collected in two methods: (a) Quantitative data: Record the data from patient's intake and output chart before and after implementing the intervention (b) Qualitative data: Gather feedback from staff using questionnaire to evaluate any adjustment needed for sustainability.

-Result analysed that with the flavoured drinks, it has increased 53% of oral fluids intake.

-After evaluate the survey from ward 1D staff, they spend about 15-30 minutes between 9am to 10am) including preparing and serving the flavoured drink. It was lesser time consuming compared to serving plain water due to patient refusal.

-Staff feedback that patient likes flavoured drink, they drink almost immediately upon serving.

Sustainability & Reflections

Our team reflected and will continue the project through continual review and customisation flavoured drinks according to patients' preferences. Also, audits will be conducted to ensure staff's compliance in preparing the drinks on time, accurate documentation, and patient's risk of dehydration. Our team learnt that it is vital to continuously improve on the type of drinks, e.g., enhancing its visual or taste impact to encourage the patients to drink more orally.