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SHORT COMMUNICATION:

DEMENTIA KNOWLEDGE AMONG MEDICAL AND DENTAL STUDENTS IN UNIVERSITI BRUNEI DARUSSALAM

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Dementia is one of the main causes of disability and dependence in older people. The World Health Organisation (WHO) global action plan on the public response to dementia 2017-2025 was developed with seven action areas. The action area regarding dementia diagnosis, treatment, care and support emphasizes the importance of improving the knowledge and skills of healthcare providers [1]. Teaching of dementia core competencies should start in the undergraduate years.

The “mental health Gap Action Programme” (mhGAP), also developed by the WHO, offers training resources for non-specialised health professionals to manage mental health conditions, including dementia. The effectiveness of the mhGAP programme was shown to be affected by cultural differences and attitudes towards mental health, as well as the level of education, knowledge and skills of the participants [2].

In Brunei, the Geriatric Medicine specialty in Raja Isteri Pengiran Anak Saleha (RIPAS) Hospital provides teaching sessions to undergraduate medical and dental students from Universiti Brunei Darussalam (UBD) regarding ageing-related topics, including dementia. Their baseline knowledge was assessed using the quiz from the mhGAP dementia module [3].

This descriptive cross-sectional study was carried out among undergraduate medical and dental students from UBD attending the geriatrics block session held in January 2022. The quiz was accessed by the students via an online link prior to their virtual lectures during the geriatrics modules. The lectures were delivered online using the Zoom platform to the combined group of second year dental, second year medical and third year medical students due to the COVID-19 pandemic.

There were 61 participants in total, consisting of 9 (14.8%) second year dental students, 27 (44.3%) second year medical students, and 25 (41.0%) third year medical students.

Overall, the mean knowledge score was 84.3%, with the majority (72.1%) having good knowledge about dementia and scoring above 80% in the quiz. The majority were aware that dementia is a chronic progressive syndrome, the impact of dementia on society, and that with early recognition and support, the lives of people with dementia and their caregivers can be improved. However, more knowledge on the different management approaches for dementia was required, including psychosocial interventions. Interestingly, the second year medical students performed better in some aspects of the quiz compared to the third year students. However, the relatively small numbers of questions and limited variability of responses precluded more detailed analysis to further elucidate the differences between groups. A longer questionnaire applied to a larger number of participants in each group should be considered to evaluate the differences between the student groups. The questions and responses to the mhGAP dementia quiz are included as an Appendix.

A study of senior medical students who rotated through the US Department of Veterans Affairs Memory Disorders Clinic at the Central Arkansas Veterans Healthcare System, Little

Rock identified prevalent dementia knowledge gaps, which were improved through an interdisciplinary geriatric educational experience [4]. A comparative study of Chinese nursing and medical students found that while medical students had higher dementia knowledge scores than nurses, there were no differences in scores for the Approach to Advanced Dementia Care Questionnaire (ADCQ) between medical and nursing students. More concerning was the lack of application of a person-centred care approach [5].

Putting together the findings of our study, while there are Action Plans and training tools such as mhGAP available, there is a need to improve the knowledge base regarding dementia management. Further work is required to evaluate how dementia knowledge can be translated to action, as application to clinical practice of multidisciplinary, person-centred care for people with dementia.

Conflicts of Interest: The authors have no conflicts of interests to declare.

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Appendix. Questions and Responses to mhGAP dementia quiz

No	Questions and Answer Options	Y2 Dent N = 9 N (%)	Y2 Med N = 27 N (%)	Y3 Med N = 25 N (%)	Total N = 61 N (%)
1.	Which of the following is a common presentation of dementia?				
	Low mood and loss of enjoyment in usual activities.	0	0	1 (4%)	1(1.6%)
	Fixed false beliefs and hearing voices.	0	0	2 (8%)	2 (3.3%)
	Excessive hyperactivity and inattention.	0	0	0	0 (0%)
	<u>Decline or problems with memory and orientation.</u>	9 (100%)	27 (100%)	22 (88%)	58 (95.1%)
2.	Which of the following is a common presentation of dementia?				
	<u>Severe forgetfulness and difficulties carrying out usual work, domestic or social activities.</u>	7 (77.8%)	25 (92.6%)	22 (88%)	54 (88.5%)
	Drowsiness and weakness down one side of the body.	0	0	0	0 (0%)
	Fluctuating mental state characterized by disturbed attention that develops over a short period of time.	1 (11.1%)	2 (7.4%)	3 (12%)	6 (9.8%)
	Low mood in the context of major loss or bereavement.	1 (11.1%)	0	0	1 (1.6%)
3.	Which of the following is the best description of dementia?				
	Dementia is a communicable disease of the brain that can be contagious.	0	0	0	0 (0%)
	Dementia is most common in those aged 40–50 years old, and rare after this age.	0	0	1 (4%)	1 (1.6%)
	<u>Dementia is a chronic and progressive syndrome due to changes in the brain.</u>	9 (100%)	27 (100%)	24 (96%)	60 (98.4%)
	Dementia is rarely noticed by anyone other than the person who has it.	0	0	0	0 (0%)
4.	Which of the following is the best description of dementia?				
	<u>Dementia can have a large impact on the person, their carer, family and society at large.</u>	8 (88.9%)	24 (88.9%)	24 (96%)	56 (91.8%)
	Dementia can be cured through pharmacological interventions.	0	0	1 (4%)	1 (1.6%)
	Dementia does not interfere with activities of daily living, such as washing, dressing, eating, personal hygiene and toilet activities.	0	0	0	0 (0%)
	Dementia is a normal part of ageing.	1 (11.1%)	3 (11.1%)	0	4 (6.6%)
5.	Which of the following is a common cluster of symptoms in dementia?				
	Minimally responsive, slow respiratory rate and pinpoint pupils.	0	1 (3.7%)	1 (4%)	2 (3.3%)
	<u>Problems with orientation, mood and emotional control.</u>	3 (33.3%)	16 (59.3%)	19 (76%)	38 (62.3%)
	Failure to thrive, poor motor tone, delay in reading and writing.	6 (66.7%)	10 (37.0%)	5 (20%)	21 (34.4%)
	Elevated mood, decreased need for sleep, increased activity.	0	0	0	0 (0%)
6.	Which of the following is a common cluster of symptoms in dementia?				
	Excessive over-activity and inattention.	0	0	0	0 (0%)
	Excessive crying, clinging to a carer and extreme shyness.	0	0	1 (4%)	1 (1.6%)
	Abrupt onset and disturbed level of consciousness.	0	0	0	0 (0%)
	<u>Decline of memory with mood or behavioural problems.</u>	9 (100%)	27 (100%)	24 (96%)	60 (98.4%)
7.	Which of the following statements best describes treatment options in dementia?				
	All people with dementia should have access to pharmacological interventions, regardless of specialist availability.	0	0	1 (4%)	1 (1.6%)
	Pharmacological interventions, if started early enough, can cure dementia.	0	0	0	0 (0%)
	<u>With early recognition and support, the lives of people with dementia and their carers can be significantly improved.</u>	8 (88.9%)	24 (88.9%)	23 (92%)	55 (90.2%)
	Psychosocial interventions for dementia should only be provided by a specialist, due to their complexity.	1 (11.1%)	3 (11.1%)	1 (4%)	5 (8.2%)
8.	Which of the following might you do first for a carer of someone with dementia?				
	Provide them with antipsychotic medication to administer to the person if their behaviour is unmanageable.	1 (11.1%)	1 (3.7%)	0	2 (3.3%)
	Provide them with details of specialists, to see if the person can be started on medication.	3 (33.3%)	1 (3.7%)	3 (12%)	7 (11.5%)

	<i>Assess their needs, including whether they are coping or becoming depressed.</i>	4 (44.4%)	25 (92.6%)	20 (80%)	49 (80.3%)
	Refer them to a social worker who can assess whether they are experiencing financial hardship.	1 (11.1%)	0	2 (8%)	3 (4.9%)
9.	Which of the following is the best first-line treatment for someone with dementia?				
	Pharmacological interventions.	1 (11.1%)	3 (11.1%)	5 (20%)	9 (14.8%)
	<i>Psychosocial interventions.</i>	6 (66.7%)	19 (70.4%)	19 (76%)	40 (65.6%)
	Antipsychotic medication.	0	3 (11.1%)	1 (4%)	8 (13.1%)
	Referring to a specialist.	2 (22.2%)	2 (7.4%)	0	4 (6.6%)
10.	Which of the following are components of psychosocial intervention in dementia?				
	Interpersonal therapy in combination with cognitive behavioural therapy.	6 (66.7%)	8 (29.6%)	7 (28%)	21 (34.4%)
	<i>Promoting independence and support for the person with dementia, including ways to improve cognitive functioning.</i>	3 (33.3%)	16 (59.3%)	17 (68%)	36 (59.0%)
	Cholinesterase inhibitors, in combination with antipsychotics if there are behavioural and/or psychological symptoms.	0	1 (3.7%)	1 (4%)	2 (3.3%)
	Reducing physical activity, changing their usual routine and leaving things exactly as they are in the house.	0	2 (7.4%)	0	2 (3.3%)
11.	Which of the following might you tell a carer of someone with dementia?				
	The person with dementia will only get worse so you should not bother trying to help them.	0	0	0	0 (0%)
	<i>A lot can be done to make the person with dementia more comfortable and to make providing support less stressful.</i>	9 (100%)	26 (96.3%)	25 (100%)	60 (98.4%)
	Taking the person to new and unfamiliar places can help stimulate their memory.	0	1 (3.7%)	0	1 (1.6%)
	The person with dementia should avoid physical and recreational activities to help preserve their health.	0	0	0	0 (0%)