Ad-Hoc Modifications to a High Dependency Psychiatric Unit for Persons with Dementia During the COVID-19 Period

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Ad-Hoc Modifications to a High Dependency Psychiatric Unit for Persons with Dementia During the COVID-19 Period

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Abstract

The spread of COVID-19 required significant reorganization of the Singapore Healthcare system to support the number of COVID cases and the rise of COVID-related mental health issues. Limited social engagements and daycare programs led to more behavioral exacerbations in persons with dementia (PWD). Increased contact between family members and PWD from ‘stay home’ policies led to greater caregiver burnout and hospitalizations for respite care. Due to the shortage of beds in the dementia ward of a tertiary psychiatric care facility, PWD are occasionally lodged in the High Dependency Psychiatric Unit (HDPCU), designed for severely aggressive or suicidal patients. Dementia wards have specific modifications to help facilitate orientation, alleviate confusion, and minimize agitation. We provide insight on ad-hoc modifications used in the HDPCU to accommodate the dementia population during the COVID-19 pandemic.

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The spread of the SARS-CoV-2 strain of coronavirus (COVID-19) required significant reorganization of the Singapore Healthcare system to support the number of COVID cases and the rise of COVID-related mental health issues [1, 2]. Postponement of non-urgent clinic appointments due to reallocating hospital resources for pandemic control and patients' fear of contracting COVID-19 delays treatment and increases the risk of psychiatric relapses [3]. Reduced physical and cognitive activity from the cessation of dementia daycare programs and limited social engagements from restricted visits with friends and family increase social isolation and behavioral exacerbations in persons with dementia (PWD) [4]. On top of this, unemployment, work-from-home policies, quarantine orders, and home-based learning put family members in closer contact with PWD. The struggle to cope with the increasing care demands of PWD leads to greater caregiver burnout and hospitalizations for respite care [5, 6]. Due to the shortage of beds in the dementia ward of a tertiary psychiatric care facility, PWD are occasionally lodged in the High Dependency Psychiatric Care Unit (HDPCU), which was not initially designed for dementia-friendly interventions. In this Viewpoint article, we provide insight on easily implementable and practical creative solutions used to accommodate PWD in HDPCU during the COVID-19 pandemic, overvcoming resource constraints and re-purposing services in the face of changing needs using a patient-centered approach (summarized in Table 1).

Table 1. Summarized framework for customizing a care environment for PWD.

Principles	**Examples**
Environmental modifications to facilitate orientation and engender familiarity	• Clear signs and signage • Sizable and readable calendars and clocks • Frequent re-orientation by staff • Nurse in areas allowing in natural sunlight and views of greenery • Simulate home-like surroundings, e.g.:

	○ Partition areas to create “rooms” for different activities ○ Place photographs of friends/family close to the patient’s bed ○ Arrange regular communication between the patient and their family/friends via video calls
Person-centered care to promote attachment, inclusion, identity, occupation, and comfort	• Obtain a detailed personal history from family/friends regarding the patient’s preferences • Surround the patient with items that affirm their personhood, e.g.: ○ Playing songs that bring comfort or voice recordings of family/friends in the ward ○ Addressing patients by their usual/preferred nickname ○ If possible, allow patients to wear/have sentimental items close by • Empower patients to exercise choice as much as possible, no matter how small the decisions may be • Encourage patients to join together for meals and games • Engage patients in meaningful and mentally stimulating activities • Express comforting interactions and validate patients’ concerns • Patiently answer repeated questions and allow

	relatively more time to perform tasks
Risk Management (delirium)	• Actively take measures to prevent delirium, e.g.: o Restrict physical restraints to only when necessary, and even then, for the shortest duration required o Minimize medications that risk iatrogenic delirium • Obtain corroborative history regarding patients' expression of discomfort to recognize signs of distress and address agitated behavior promptly
Core competencies (training if required) of staff	• Understand core concepts of and practice person-centered care • Geriatric-specific care, including fall and choking risk, activities of daily living support • De-escalation skills for agitated geriatric patients

The HDPCU is a specialized inpatient unit devised for patients with an acute psychiatric disorder with severe agitation or aggression, placing them at significant risk to themselves or others and, therefore, requiring close monitoring. The nursing counter is sandwiched between two locked gender-specific cubicles, each with four and six beds and single bathrooms, and has a full view of both cubicles and their various discreetly placed security cameras. Items that fuel self-harming or suicidal behaviors, such as wires for electronics, plastic bags, detergents, sharp pencils, and utensils, are strictly prohibited in the ward. There is a 2:1 nurse-to-patient ratio. Staff are specially trained in swift de-escalation to ensure safety and prevent violence, including applying physical restraints and administering oral and intramuscular sedation if required. A psychiatrist, a junior doctor, and the nursing and allied healthcare team are onsite to manage the patients.

PWD often experience disorientating situations due to separation from familiar settings, people, and routines. Dementia wards have specific modifications to orient PWD, such as legible signage, large clocks, brighter lighting, contrasting-colored walls, furniture, and utensils [7]. Renovating the HDPCU to suit such requirements was not immediately feasible. Hence, modifying the environment to have clear signs indicating the bathrooms, a sizeable hand-drawn daily calendar facing the bed indicating the date, day, month, and year, and verbal re-orientation three times a day were implemented to facilitate orientation. PWD were also nursed opposite a readable digital clock and beside big windows that viewed greenery and allowed in natural sunlight.

Dementia wards engender familiarity by creating homey surroundings, e.g., paintings hung along corridors and divided kitchen, bedroom, and living room spaces. Since safety is of utmost priority in the HDPCU, rules are often strict, and cubicles are designed relatively smaller with an open layout for easy monitoring. These restrictions may cause PWD, particularly those who like to wander, to feel trapped and anxious. Given the nature of patients admitted to the HDPCU, the noisy and disruptive atmosphere can destabilize and frighten PWD. To create a calm environment that minimizes overstimulation and distractions, PWD were nursed in a partitioned visitors' area accessed via a corridor adjacent to the cubicles and nursing counter. Families of PWD were encouraged to bring photographs to place in front of patients’ beds and participate in regular video calls from the ward smartphone to lessen the effects of visitor restrictions during the pandemic [8]. The sectioned area also reduces the risk of PWD's impaired sleep-wake cycles and sun-downing behaviors, provoking other patients. The improvised space simulated a private bedroom, while a wheel-in TV and movable couches in the cubicles’ shared living area imitated a makeshift living room.

In person-centered care for PWD, personhood consists of attachment, inclusion, identity, occupation,

and comfort. Emotional distress is usually triggered by unmet needs related to aspects of personhood. Obtaining a detailed personal history from the family regarding PWD's preferences is essential to affirm personhood. For one such patient, playing Chinese songs from his childhood, hearing voice recordings of family, addressing him by his preferred nickname, and wearing a jacket gifted from his daughter in the ward provided a sense of comfort, identity, and continuation of self. Empowering the patient to exercise choice as much as possible, even as small as choosing his preferred snack, preserves autonomy and dignity. Encouraging PWD to join other patients during meals and games instills a sense of inclusion and occupation [9, 10]. Engaging PWD in meaningful activities mentally stimulates and reduces the restlessness related to their tendency to worry about their situation. Expressing warmth through comforting interactions, patiently answering repeated questions, allowing them more time to perform tasks, and validating concerns settle the wariness and diminished sense of attachment in PWD. These efforts promote the therapeutic relationship and trust between staff and PWD, ultimately reducing aggression and distress.

Lastly, because PWD are prone to delirium during acute hospitalization, the HDPCU team actively took measures to prevent it. Physical restraints were only applied if verbal de-escalation repeatedly failed and the extreme agitation posed a safety risk to themselves or others, and even then, for the shortest duration required. Wherever possible, medications that risk iatrogenic delirium in PWD were avoided, e.g., short-acting benzodiazepines for tranquilization, anticholinergic drugs, and opioid-containing analgesia. PWD often have issues communicating their needs and are likely to only respond to their present state due to verbal difficulties and memory problems. Further history regarding the patients' typical behavioral patterns and expression of discomfort from pain, hunger, thirst, or constipation helped the team promptly recognize signs of distress and address agitated behaviors early without escalating to restraints.

In conclusion, hospital care conditions can be difficult for PWD as they require familiarity, frequent orientation, and a high level of staff trained to handle their needs. The HDPCU adapted to rapid hospital protocol and healthcare policy changes during the COVID-19 pandemic and the resultant rise in the inpatient dementia population. Although the HDPCU staff were not geriatric-trained, the favorable staffing ratio and expertise in handling agitated and aggressive patients made implementing person-centered care easier. Such conditions may not be available in non-specialized wards, making catering to the increasing population of PWD admitted to hospitals in Singapore challenging. Nonetheless, creative solutions could be utilized to customize the environment for such patients aptly. Hospitals could also consider bringing in key “experts,” such as psychogeriatricians and geriatric nurses, to advise on optimizing non-specialized wards and provide training to care for PWD.

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CONFLICT OF INTEREST
None declared.

AUTHOR CONTRIBUTIONS
Thanita Pilunthanakul contributed to conceptualizing and writing the original and reviewing and editing the draft. Giles Tan Ming Yee contributed to conceptualizing, supervising, and reviewing and editing the draft.

GENERATIVE AI STATEMENT
The authors attest that there was no use of generative artificial intelligence (AI) technology in the generation of text, figures, or other informational content of this manuscript.

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