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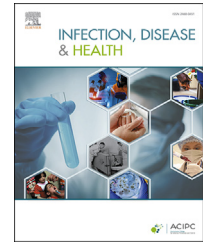
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Research paper

Knowledge, attitudes and practices of healthcare workers within an Australian tertiary hospital to managing high-consequence infectious diseases

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Abstract *Background:* Adequate preparation and support for healthcare workers (HCWs) managing high-consequence infectious diseases (HCIDs) is critical to the overall clinical management of HCIDs. Qualitative studies examining how well prepared and supported HCWs feel are lacking despite their key role. This study investigated how prepared and supported front-line HCWs at an Australian tertiary hospital felt about managing HCIDs such as viral haemorrhagic fever (VHF).

Methods: A qualitative research approach was used to undertake interviews with 45 Royal Melbourne Hospital medical and nursing staff from emergency, intensive care and infectious diseases. Interview questions captured data on HCWs' role, familiarity with using protocols, psychological attributes and training for scenarios related to VHF patient management. Interviews were recorded and transcribed. Categorical responses were analysed quantitatively and open-ended responses were analysed thematically.

Results: Ninety-eight percent of participants indicated feeling capable of undertaking their role in managing VHF patients; 77% felt supported through personnel/resources. However, 69% indicated barriers to managing these patients effectively; and 68% felt anxious at the

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prospect of managing VHF patients. Themes emerging from participants' observations included concerns about training frequency, miscommunication, difficulty with uncertainty, feeling underprepared, and fear of transmitting infection to others.

Conclusion: Although the majority of HCWs feel confident about their ability to care for VHF patients, they also have a moderately-high degree of anxiety. Perceptions of interviewed staff have fed into recommendations to increase HCW preparedness and reduce anxiety, which include investigating support services, and exploring training options that create multi-departmental groups of highly specialised medical officers and nurses.

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Highlights

- Participants felt capable to provide care for viral haemorrhagic fever patients.
 - Healthcare workers felt supported by personnel/resources to undertake their role.
 - The majority highlighted anxieties or concerns around managing these patients.
 - Specific reasons included difficulty with uncertainty and feeling underprepared.
 - Services to allay anxiety and enhanced training recommended to improve preparedness.
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Introduction

High-consequence infectious diseases (HCIDs) have become an increased public health concern globally over the past number of years. These diseases, such as COVID-19 (caused by SARS-CoV-2) [1–4] and viral haemorrhagic fever (VHF), can be transmitted rapidly within a naïve population over a short time period with the potential to cause epidemics or pandemics, and significant economic burden on treatment and care [5]. Two diseases associated with VHF are Crimean-Congo haemorrhagic fever (CCHF), and Ebola virus disease (EVD) where the Democratic Republic of the Congo had over 3480 cases of this disease between 2018 and 2020; one of the largest EVD outbreaks the African continent had experienced to date [6–9]. These diseases are known to be transmitted from human-to-human through contact with bodily fluids or secretion, resulting in varied clinical sequelae [10,11]. With the potential for rapid VHF transmission within a naïve population, this presents a potential risk to healthcare settings outside of the African continent given the reports of HCWs becoming infected with EVD [12,13] or CCHF [14] post-treating HCW patients returning from travel to affected countries.

There is clear evidence from the recent SARS-CoV-2 pandemic of the ease of spread of HCIDs through international travel and the need for a coordinated response with early detection, management and control of HCIDs. HCWs are an integral part of every step in this process. In Australia, The Royal Melbourne Hospital (RMH) is one of the principal referral centres for VHF cases, housing a dedicated VHF unit to care and treat these types of patients. HCWs in varying positions in the emergency department (ED), infectious diseases department (ID) and the intensive care unit (ICU) play pivotal roles in the triage, isolation and treatment of patients with suspected/confirmed VHF. Communication and a synchronised approach to triaging, isolating and managing a VHF patient between ED, ID, ICU, and other departments is critical to providing seamless

care, while preventing accidental transmission to any staff member or other patients within the hospital. The RMH conducts an extensive training program for these HCWs, which covers practicing personal protective equipment (PPE) donning and doffing, running patient room simulations, and conducting biannual exercises from triaging and isolating a suspected patient to managing their treatment within the dedicated unit. These protocols utilise various international resources, and are reviewed regularly by these delegates [15–19]. Despite the availability of education and training to these HCWs, it is unknown how prepared and supported they feel to manage patients with suspected/confirmed VHF.

Several quantitative studies have assessed the knowledge, attitudes and practices (KAPs) of HCWs in relation to managing different infectious diseases, particularly EVD after the 2014–15 outbreak, and CCHF after numerous outbreaks in Africa [20–28]. The findings from these studies revealed significant variation in their knowledge of the pathogens (poor to very good), and dramatic variation in understanding and applying the critical precautions to prevent transmission to fellow staff members and other patients [20–28]. However, potential barriers that could affect the ability to provide appropriate care of infected patients were not explored in these studies. Furthermore, these studies did not examine the HCW's role in managing infected patients or investigate the underlying psychological attributes that could affect HCW behaviour after managing such a patient. Lastly, the literature does not reveal any studies, either quantitative or qualitative, examining the KAPs of front-line healthcare professionals in an Australian tertiary hospital setting. Given the need to understand HCWs' preparedness and perceptions regarding the availability of support, and the absence of appropriately generalisable information from the literature, this study examined the KAPs of front-line HCWs at The RMH who are involved with managing patients that may present with a HCID, such as VHF.

Methods

Study design

A qualitative, mixed-methods approach was employed to collect data from RMH medical officers (registrars or consultants) and nurses working in ID, ICU and ED (except medical/nursing students or interns) through structured interviews. These staff members fit the definition of front-line HCWs given their involvement in triaging, isolating, examining and treating/caring for suspected/confirmed VHF patients. A stratified purposive and criterion sampling approach was used to sample this population of interest. Structured interviews followed an interview schedule based on the KAP survey model, which provides a means to capture data on what the individual knows, thinks and does when treating/caring for a patient [29,30]. This method allows identifying gaps in knowledge and workplace cultures that influences utilising hospital-based procedures, and unpack commonly-known factors that influence a HCW's practice in patient care.

Recruiting participants

All department heads were informed of the study during protocol and interview schedule development and they all showed support for the study. Staff members in each department were approached by a study investigator not linked to the department of interest (JF or IT), either in-person or via email between September and October 2019, and provided information about the study and invited to participate.

Data collection

Participants undertook an interview with one of the study investigators (JF or IT) in-person using an interview schedule (see the Supplement section). The interview schedule was developed by the study investigators, reviewed by respective department representatives, and was trialled with an expert in the field for alignment with the study objectives prior to participant recruitment. Questions posed to the participants were closed-ended and open-ended focusing on a number of survey items, including:

- Demographics,
- Knowledge and perceptions towards staff member's role in the setting of a VHF presentation,
- Attitudes of staff members towards protocol utilisation and adherence of patient management and infection control protocols, and
- Level of concerns about protocol training.

Detailed responses to all questions were recorded on a hard copy of the interview schedule by the interviewer and checked with the participant if unclear.

Data analysis

Categorical or closed-ended responses were managed and analysed in Microsoft Excel®. Proportions were calculated

for demographic variables (gender, age group, current position within the respective department, and years of service) and questions that used binary variables (yes/no), categorical variables or a 7-point scoring system. This analysis was performed for each profession within each department, and the data were collectively analysed at the hospital level for each profession.

Open-ended responses were managed as transcripts within Microsoft Word® for each participant. Thematic analysis of the transcripts involved deductively coding the major themes in the data by using the Theoretical Domain Framework [31]. Based on the major themes, sub-themes were also developed through additional inductive coding. All coding of themes and sub-themes was conducted and managed in NVivo (Version 12.6.0.959) by JF. A double-coding approach (using 31% of transcripts) was used to systematically check the major themes and sub-themes emerging from the data. This was conducted by an independent member of the team (AR), who adopted a deductive approach. Coding approaches used by JF and AR were discussed in-person, and a consensus was reached for any differences identified between the two coding methods. Comparisons of the themes and sub-themes were conducted to examine any similarities or differences between HCWs from ID, ICU and ED.

Results

Study sample

A total of 22 medical officers and 23 nurses from all departments agreed to participate in the structured interviews (nine medical officers and ten nurses from ID, ten medical officers and ten nurses from ICU, and three medical officers and three nurses from ED), with all participants completing the interview. Basic demographic information is as follows: for the medical officers, 86% were male, 55% were aged between 41 and 50 years, 63% were specialists, and 32% had between one and five years of experience; for nurses, 70% were female, 35% were aged between 31 and 40 years, 44% were clinical nursing specialists, and 39% had between six and ten years of experience. Comparisons of these variables were relatively consistent for each of the professions between each department.

Knowledge of staff member's role in the setting of a VHF presentation

Responses to questions about the knowledge of their role in the setting of a VHF presentation are summarised in [Table 1](#). Ninety-eight percent of participants highlighted having some form of role of managing patients with VHF, with specific themes of a medical role ("In general, assist with the clinical presentation and care of the patient within the ICU, e.g. blood collection." – ICU03), caring role ("Contact the registrars, make sure a bed is available, make sure transfer and people involved for transfer is available, inform Infection Prevention and Surveillance Services (IPSS), and go through the policy from IPSS if in doubt." – ID03), or a leadership role ("As the consultant on-call, management of the registrars and nurses for the care of

Table 1 Knowledge of healthcare worker's role and available resources for managing suspected/confirmed VHF patients.

	Infectious diseases		Intensive care		Emergency	
	Medical officers n ^a (%)	Nurses n ^a (%)	Medical officers n ^a (%)	Nurses n ^a (%)	Medical officers n ^a	Nurses n ^a
Have a role with managing suspected/confirmed VHF patients	8/9 (88.9)	10/10 (100.0)	10/10 (100.0)	10/10 (100.0)	3/3	3/3
Aware of resources or online material to use for finding out more about VHF	9/9 (100.0)	9/10 (90.0)	9/10 (90.0)	9/10 (90.0)	3/3	3/3
Aware of the RMH Infection Prevention resources	9/9 (100.0)	10/10 (100.0)	9/9 (100.0)	10/10 (100.0)	3/3	3/3
Aware of, and have read, the hospital-specific guidelines for managing VHF patients	9/9 (100.0)	7/10 (70.0)	4/10 (40.0)	9/10 (90.0)	3/3	2/3

VHF = Viral Haemorrhagic Fever.

RMH = The Royal Melbourne Hospital.

^a Denominators represent number of participants responding to the question.

the patient.” – ICU17) were identified. All participants articulated accurate knowledge or a combination of accurate and comprehensive knowledge of signs/symptoms of VHF infection and transmission routes within a hospital setting. More than 91% of participants identified resources such as internal documents or online materials to gain more information about VHF.

Perceptions of staff member's role in the setting of a VHF presentation

Participant's responses to questions about their attitudes towards their role in the setting of a VHF presentation are summarised in Table 2. Overall, a higher proportion of nurses than medical officers across all departments indicated feeling comfortable with managing highly-transmissible infectious diseases (Table 2). Insufficient personal experience around managing suspected VHF patients and difficulty with uncertainty (“More with managing the conditions of the patient and other staff members never experienced before.” – ICU04) were reasons given by participants who felt uncomfortable. Seventy-six percent of participants felt they receive some level of support to

undertake their role managing these patients (Table 2), with two primary forms or sources of support being mentioned:

1. Personnel, such as fellow colleagues who are well trained on the topic, the relevant leadership team of the department and the hospital executive, and
2. Resources, primarily policies and procedures used to assist managing suspected/confirmed VHF patients.

Attitudes of staff members towards protocol utilisation and adherence to patient management and infection control procedures

Responses to questions about participants' attitudes around utilising and adhering to VHF patient management and infection control protocols are summarised in Table 3. Of the 69% of participants highlighting barriers that would prevent them from adhering to VHF patient management protocols, several themes emerged. “These included a lack of frequent staff training (“And there are not enough adequately trained staff on the ward to care for VHF patients if they were to present.” – ICU14), communication issues within and

Table 2 Level of comfort and support while managing suspected/confirmed VHF patients.

	Infectious diseases		Intensive care		Emergency	
	Medical officers n ^a (%)	Nurses n ^a (%)	Medical officers n ^a (%)	Nurses n ^a (%)	Medical officers n ^a	Nurses n ^a
<i>How comfortable do you feel with your role in the management of patients with significant transmissible infections?</i>						
Comfortable	5/8 (62.5)	8/10 (80.0)	3/10 (30.0)	9/10 (90.0)	2/3	3/3
Neutral	2/8 (25.0)	1/10 (10.0)	2/10 (20.0)	0/10 (0.0)	1/3	0/3
Uncomfortable	1/8 (12.5)	1/10 (10.0)	5/10 (50.0)	1/10 (10.0)	0/3	0/3
<i>How supported do you feel with undertaking your role?</i>						
Supported	4/8 (50.0)	9/10 (90.0)	6/9 (66.7)	9/10 (90.0)	2/3	3/3
Neutral	4/8 (50.0)	0/10 (0.0)	1/9 (11.1)	1/10 (10.0)	1/3	0/3
Not supported	0/8 (0.0)	1/10 (10.0)	2/9 (22.2)	0/10 (0.0)	0/3	0/3

VHF = Viral Haemorrhagic Fever.

^a Denominators represent number of participants responding to the question.

between departments (“There is a communication barrier with key people not being told, particularly ICU.” – ICU08), and ‘difficulty’ with ‘uncertainty’.” Ninety percent of participants identified utilising some form of infection control procedure, with 75% of these participants feeling confident with being able to utilise these protocols. The analysis of participants’ responses indicated accurate knowledge and a combination of comprehensive and accurate knowledge of the protocols required.

Importantly, 64% of participants across all departments felt anxious at the prospect of managing a suspected/confirmed VHF patient (Table 4). The theme of HCW anxiety around the management of VHF patients emerged from the responses of several participants, whose predominant

reasons for anxiety included fear of transmitting the disease to family members, worry about own safety (“Risk of infection through PPE donning and doffing, concerns to exposure of an excreta spill and needing to clean it up, and not being comfortable to take blood collection from patient.” – ID17), difficulty dealing with uncertainty, and feeling underprepared (“Lack of practice and preparedness for receiving and managing a VHF patient, lack of familiarity with the people within the ward and within the hospital system regarding who to liaise with or consult for undertaking own role.” – ID18). Variation in the proportions of HCWs reporting various concerns were observed (Table 4). Observations on approaches to managing HCW anxiety included a perceived need for more training on a

Table 3 Understanding and utilising VHF management-specific protocols.

	Infectious diseases		Intensive care		Emergency	
	Medical officers n ^a (%)	Nurses n ^a (%)	Medical officers n ^a (%)	Nurses n ^a (%)	Medical officers n ^a	Nurses n ^a
Understanding & using the protocols is easy when managing a suspected/confirmed VHF patient	3/9 (33.3)	9/10 (90.0)	4/10 (40.0)	5/10 (50.0)	1/3	1/3
Understanding my role in the protocols is easy when managing a suspected/confirmed VHF patient	7/9 (77.8)	10/10 (100.0)	6/10 (60.0)	8/10 (80.0)	1/3	1/3
I feel there are barriers preventing me from being able to adhere to the protocols when managing such a patient	6/9 (66.7)	7/10 (70.0)	5/10 (50.0)	9/10 (90.0)	3/3	1/3
I feel confident at this point in time with adhering to the infection control protocols when managing a suspected/confirmed VHF patient	4/8 (50.0)	9/10 (90.0)	8/8 (100.0)	8/10 (80.0)	3/3	2/3

VHF = Viral Haemorrhagic Fever.

^a Denominators represent number of participants responding to the question.

Table 4 Anxieties and concerns regarding the prospect of managing suspected/confirmed VHF patients.

	Infectious diseases		Intensive care		Emergency	
	Medical officers n ^a (%)	Nurses n ^a (%)	Medical officers n ^a (%)	Nurses n ^a (%)	Medical officers n ^a	Nurses n ^a
I feel anxious at the prospect of managing suspected/confirmed VHF patients	6/9 (66.7)	7/10 (70.0)	7/10 (70.0)	7/10 (70.0)	1/3	1/3
I am worried for my own safety	4/9 (44.4)	3/9 (33.3)	5/10 (50.0)	4/10 (40.0)	1/3	0/3
I am worried for the safety of my colleagues	7/9 (77.8)	4/10 (40.0)	8/10 (80.0)	5/10 (50.0)	1/3	2/3
I am worried about the possibility of my role leading to transmission of VHF to my family	3/9 (33.3)	4/9 (44.4)	7/10 (70.0)	6/10 (60.0)	1/3	1/3
I am worried about making a mistake that would lead to a bad outcome for myself or my colleagues and family	7/9 (77.8)	5/10 (50.0)	7/10 (70.0)	6/10 (60.0)	1/3	1/3

VHF = Viral Haemorrhagic Fever.

^a Denominators represent number of participants responding to the question.

frequent basis (“Training for staff and know that they are confident and competent at this point in time to manage patients.” – ICU07), and the provision of support services to staff (“... that there is accommodation available for stay temporarily if feeling exposed to the patient, and that there are follow-up services available for staff to check on their health post-exposure.” – ICU18).

Participation in preparation training/simulations for a VHF presentation

Participants’ responses to questions about their training to prepare for a VHF presentation are summarised in Table 5. Ninety-two percent of participants indicated undertaking training and/or exercises for managing VHF patients with designated trainers within the ward or from the IPSS team (Table 5). Overall, more than 80% of participants found these sessions useful in building their confidence to manage VHF patients; however, variation in the proportions of HCWs feeling confident in their role when participating in the exercises was observed (Table 5).

Discussion

National preparedness of HCWs in hospitals to manage imported cases of HCIDs such as VHF becomes paramount to

protect naïve populations from local transmission. This is the first study (that the authors are aware of) that examines how confident HCWs from an Australian tertiary hospital feel about undertaking their role in managing VHF patients.

This study has shown that 98% of HCWs interviewed are aware of their role, whether that be a medical, caring or leadership type role, in managing VHF patients. All participants were able to illustrate their knowledge of the transmission routes and clinical features of VHF, with 91% exemplifying their ability to utilise various resources to gain more information (Tables 2 and 3). These findings on the knowledge of VHF are consistent with studies that investigated KAPs in Nigerian HCWs after the 2014–15 EVD outbreak, which demonstrated that at least 62% of HCWs articulated appropriate information on the clinical features of the disease, diagnosis and transmission routes [23–25]. Our findings on level of the utilisation of various resources were also consistent with other studies from various African countries during the CCHF and EVD outbreaks (71%–99%); however, the types of resources utilised varied from colleagues, to textbooks, the media and the Internet [23,24,27]. Furthermore, this study showed over 80% of HCWs who participated in formal training and exercises felt these were useful to undertaking their duties, with 55% feeling confident undertaking their duties when participating in the exercises (Table 5). These findings

Table 5 Experience from the training and exercises to prepare to manage suspected/confirmed VHF patients.

	Infectious diseases		Intensive care		Emergency	
	Medical officers n ^a (%)	Nurses n ^a (%)	Medical officers n ^a (%)	Nurses n ^a (%)	Medical officers n ^a	Nurses n ^a
Have been involved in training and/or exercises for managing suspected/confirmed VHF patients	6/9 (66.7)	10/10 (100.0)	9/10 (90.0)	10/10 (100.0)	3/3	1/3
Have had a scenario of needing to manage a suspected/confirmed case of VHF, where the training received was applied	1/6 (16.7)	2/10 (20.0)	2/9 (22.2)	1/10 (10.0)	2/3	2/2
Training & exercises have been useful when managing suspected/confirmed VHF patients	4/5 (80.0)	10/10 (100.0)	7/8 (87.5)	10/10 (100.0)	3/3	1/2
<i>When participating in the exercises, I:</i>						
Felt confident in my role	2/6 (33.3)	6/10 (60.0)	6/10 (60.0)	4/10 (40.0)	3/3	1/1
Did not feel confident in my role	1/6 (16.7)	0/10 (0.0)	2/10 (20.0)	1/10 (10.0)	0/3	0/1
Felt this did not change my confidence in my role	1/6 (16.7)	1/10 (10.0)	0/10 (0.0)	1/10 (10.0)	0/3	0/1
Training sessions & exercises given me the confidence to adequately adhere to VHF patient management protocols	4/5 (80.0)	8/10 (80.0)	7/8 (87.5)	10/10 (100.0)	2/2	1/1

VHF = Viral Haemorrhagic Fever.

^a Denominators represent number of participants responding to the question.

demonstrate the opposite experience of HCWs in Sudan during the 2014–15 EVD outbreak, where 91% did not attend any formal training session [21].

Participants were asked if barriers existed that could affect their ability to appropriately manage VHF patients. Not surprisingly the majority indicated a lack of training, miscommunication, and difficulty with uncertainty (Table 3). Given the paucity of literature on this topic, this is the first study to provide insight into the potential barriers that could affect HCWs in their management of these patients. Capturing information on these barriers enables a directed approach to improving the resources, training and protocols available to HCWs. Furthermore, regular appraisal of the training and resources available should be conducted in conjunction with frequent feedback from HCWs to ensure the highest quality of care being given to managing VHF patients.

Anxiety about the prospect of managing VHF patients was highlighted as a potential barrier to provide effective care by both nursing and medical staff relatively equally (Table 4). However, medical officers were more concerned about the safety of themselves, their colleagues, and the potential to transmit VHF to their family compared to nurses (Table 4). Furthermore, a lower proportion of ICU and ID medical officers (than their counterparts in other departments) felt comfortable utilising the mandatory procedures to manage VHF patients within their ward (Table 3). Given that the interview questions did not explore these findings further, the authors speculate there may have been numerous reasons. These reasons include competing priorities and workloads of ID and ICU medical officers hindering their ability to attend frequent training sessions compared to nurses who are allocated time to attend, ICU and ID medical officers assuming they will have to manage VHF patients, and fears about the inevitability of nosocomial infection of HCWs based on the intense media coverage of the topic during the 2014–2015 and 2018–2020 EVD epidemics. Furthermore, there is the potential for medical officers to become complacent when managing VHF patients given the theoretical nature of the risk of VHF within Australia, personal perceptions about this risk and the need for training, or competing priorities, which could particularly be the case for the ICU medical officers (Table 1). These reasons highlight the need for future studies to further explore and unpack these psychological attributes in detail.

Considering this study primarily focused on the KAPs of HCWs for managing VHF, the survey items do provide a framework to improve the preparedness of HCWs to manage other HCIDs, particularly SARS-CoV-2. Furthermore, the findings from this study do support a number of recommendations to improve the preparedness of these professionals for managing VHF patients. These recommendations include exploring the feasibility of:

- Incorporating an enhanced multi-departmental training program that covers the necessary patient management and infection prevention procedures, and simulates real-world scenarios to facilitate synergy between departments and provide the right tools to make the right call;

- Sharing the responsibility of triaging, isolating or managing these patients with all experienced staff members to reduce the burden for a call to be made by a single individual (particularly a senior medical officer); and
- Exploring support services for staff during or after managing a VHF patient that include counselling to alleviate any anxieties or confronting experiences while performing their duties, along with a medical service if involved HCWs potentially feel unwell (including financial support if mandatory quarantine is required).

Limitations

Despite this study demonstrating how prepared and supported HCWs feel with undertaking duties of managing VHF patients, there are some limitations. Given the setting of the study was a tertiary hospital designated as a referral centre for VHF patients, the findings may not be generalisable to other developed world healthcare settings. The study hospital has in place specialised infrastructure, protocols and procedures to treat these patients [15,16], which requires a significant investment to plan, develop and deploy, and may not be a funding priority for other healthcare settings. However, it should be noted that most of the findings could be translatable to understanding the preparedness and support HCWs for managing other HCIDs.

Conclusions

This study has examined HCWs' preparedness, and perceptions about available support, for managing patients with HCIDs such as VHF. While participants largely understood their role in caring for VHF patients while being supported by personnel or resources, there were issues such as barriers to optimal patient management training and utilisation of resources, and psychological attributes that could play a role in limiting effective patient management and infection control. Additional studies to explore these issues are warranted. Furthermore, exploring the utility of established staff management procedures or support services to allay HCWs' anxiety or concern and investigating options for enhancing training programs across all departments is recommended.

Ethics

Ethical clearance was granted to undertake this study as a quality assurance project by the Melbourne Health Human Research Ethics Committee (approval number: QA2019069). RMH medical officers and nurses willing to participate in the study provided implied consent.

Authorship statement

JJF, ST and IT conceived the study. All authors contributed towards the concept and design of the study. JJF and IT conducted the acquisition of the data through conducting the interviews. JJF conducted the quantitative and

qualitative analyses, with AR contributing to the qualitative analyses. JJF, ST, CM and IT provided administrative, technical and material support to the study. JJF prepared the first draft of the manuscript, with all authors contributing towards the review and approval of the final draft.

Declaration of competing interest

All authors report no conflict of interest.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.idh.2020.10.002>.

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