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Major article

Qualitative findings from focus group discussions on hand hygiene compliance among health care workers in Vietnam

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Background: It is accepted by hospital clinical governance that every clinician's "duty of care" includes hand hygiene, yet globally, health care workers (HCWs) continue to struggle with compliance. Focus group discussions were conducted to explore HCWs' barriers to hand hygiene in Vietnam.

Methods: Twelve focus group discussions were conducted with HCWs from 6 public hospitals across Hanoi, Vietnam. Discussions included participants' experiences with and perceptions concerning hand hygiene. Tape recordings were transcribed verbatim and then translated into English. Thematic analysis was conducted by 2 investigators.

Results: Expressed frustration with high workload, limited access to hand hygiene solutions, and complicated guidelines that are difficult to interpret in overcrowded settings were considered by participants to be bona fide reasons for noncompliance. No participant acknowledged hand hygiene as a duty of care practice for her or his patients. Justification for noncompliance was the observation that visitors did not perform hand hygiene. HCWs did acknowledge a personal duty of care when hand hygiene was perceived to benefit her or his own health, and then neither workload or environmental challenges influenced compliance.

Conclusion: Limited resources in Vietnam are amplified by overcrowded conditions and dual bed occupancy. Yet without a systematic systemic duty of care to patient safety, changes to guidelines and resources might not immediately improve compliance. Thus, introducing routine hand hygiene must start with education programs focusing on duty of care.

It is well established that hand hygiene compliance is an effective measure for reducing the spread of health care–associated infection (HCAI) and multidrug-resistant organisms.[1] HCWs globally continue to struggle to comply with hand hygiene. In resource-limited healthcare settings where the burden of HCAI is high,[2] health care facilities are now introducing the concept of clinical governance through the dissemination of high-quality practice standards to ameliorate this issue. Inadvertently, however, these new programs fail to harness the collective support of key stakeholders and influential leaders expected to implement these programs at the grassroots level before commencement.

Although multimodal programs achieve initial increases in HCWs' hand hygiene compliance,[1,3-5] the effectiveness of such programs has been limited and often difficult to sustain.[5-10] Our understanding of the determinants of hand hygiene behavior is improving, but a multitude of cultural, behavior, and organizational factors remain to be understood.[11] In well-resourced countries, clinical governance underpins sophisticated quality programs across health care settings. Key components are a comprehensive quality improvement program, ongoing professional development, policies and procedures for managing risk and addressing poor performance, and professional accountability for the quality of care provided.[12]

Limited knowledge, scant data on HCAIs,[2] and overcrowded health care facilities create major challenges to introducing and driving patient safety programs in resource-limited settings, such as Vietnam. In 2012, health expenditures represented approximately 6% of the total gross domestic product of Vietnam.[13] Limited funding has led to delays in planned upgrades to clean water supply and sewage systems, resulting in poor access to clean water and thereby facilitating the spread of infectious diseases. These funding limitations have contributed to HCW and hospital bed shortages.[13,14] To explore barriers to hand hygiene in Vietnamese HCWs

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in these settings, we conducted focus group discussions with staff from major teaching hospitals in Hanoi.

METHODS

Setting

Six health care facilities representing central- and provincial-level health care were purposively selected based on their central location in Hanoi. These facilities are representative of busy public tertiary hospitals across Vietnam with a >500-patient bed capacity. Each facility has a hand hygiene policy and an infection control department responsible for monitoring hand hygiene compliance. Ethical approval was obtained from the National Institute of Hygiene and Epidemiology (NIHE) in Hanoi and the University of New South Wales in Australia. Ethical approval from the NIHE was accepted by each of the 6 hospitals, and informal consent was obtained from all HCWs to participate. The NIHE liaised with the hospitals and organized the focus discussion group schedule.

Participants and sample size

Focus groups were conducted between August 2010 and May 2011. Each focus group had approximately 8-12 participants. Data on HCW sex, age, and years of experience were not collected. At each hospital, participants were invited from selected hospital departments, and focus discussion groups were held separately for physicians and nurses. Participation was voluntary.

Procedure

Discussion topics included mask use and hand hygiene issues separately. Three trial focus group discussions conducted during training were excluded from our analysis. There were no other exclusions. A total of 12 focus groups were analyzed. To encourage participation, a modest incentive was offered to cover costs incurred at each health care facility. One of the authors (M.L.M.) trained a local epidemiologist to facilitate discussion and to probe unexpected or unusual responses. A senior officer from the NIHE who was located away from the table provided M.L.M. with concurrent translation during all discussion groups to validate methodology. Both S.S. and M.L.M. have infection control experience in Vietnam.

Each focus group session was conducted for no longer than 60 minutes. During each session, the initial discussion was about mask use, and once this discussion was exhausted, the facilitator introduced the topic of hand hygiene. Prompting questions were designed based on our observations of HCWs' hand hygiene behavior in the Vietnamese health care setting. Questions focused on the HCWs' understanding of HCAI and infection control practices, specifically hand hygiene. Questioning progressed from asking the HCWs to disclose facility-based HCAI rates and necessary controls to prevent disease transmission to hand hygiene compliance challenges and possible solutions.

Qualitative data analysis

Audiotapes of the full session were transcribed verbatim using standard word processing software. Transcripts were proofread and then translated to English by NIHE staff to ensure accurate translation of the dialogue. Transcripts were read independently by M.L.M. and S.S., who identified a list of themes and subthemes after reading a sample of interviews. If there was any ambiguity in translation, 1 researcher was able to check the original transcripts in Vietnamese (S.S.), and 1 researcher (M.L.M.) was present and received concurrent translation for all interviews. Transcripts were not examined separately by profession. Once themes and subthemes were agreed on, both researchers read and coded the remaining transcripts. A thematic framework around the codes was subsequently tested with a second sample of transcripts for modification. The framework was then tested against the full sample and refined.

RESULTS

Examination of the transcripts for themes revealed that the concept unifying all 3 themes was a dominating absence or acknowledgement of professional or ethical "duty of care" that an HCW should demonstrate to a patient when prioritizing prevention of adverse health consequences via the promotion of patient safety, specifically hand hygiene. We named this unifier "reduced duty of care" to patients. Discussion focused on duty to oneself and one's family, and the absence of duty of care to patients was consistent across nurses and doctors at all 6 hospitals and with previous studies.[15,16] Duty of care did not appear as a motivator of hand hygiene. Three major themes that emerged from our analysis, including minor recurring themes, were consistent in all groups, with self and family protection from possible risk of infection from HCWs associated with infection transmission, inadequate knowledge and beliefs of HCWs, complicated hospital guidelines, and access to hand hygiene sinks and solutions (Table 1). Major themes were connected by the minor themes and describe the facilitators and barriers to a duty of care for hand hygiene.

Theme 1: Priority for hand hygiene for oneself and duty of care to family and friends

Although participants recognized that hand hygiene can prevent HCAIs, it was explicitly acknowledged that their main motivation for practicing hand hygiene was to protect themselves, as well as their family and friends. Inability to adequately self-protect through hand hygiene was perceived as exposing family and friends to a risk of infection.

> Doctor, hospital D: We [doctors] wash our hands to protect ourselves, not because we are forced to.
> Nurse, hospital H: [If the hospital was not busy and hand hygiene solutions were available and accessible], we [nurses] would use them [hand hygiene resources] to protect ourselves first.

Table 1
Identified themes and subthemes describing factors influencing hand hygiene compliance among HCWs in Vietnam

Theme, subtheme	Description
Theme 1	Priority for hand hygiene for oneself and duty of care to family and friends
Subtheme A	Subjective risk perception of indications for hand hygiene for self-protection and family protection
Theme 2	Adherence to guidelines is compromised by HCWs' knowledge and beliefs
Subtheme A	HCWs' poor understanding of infection transmission
Subtheme B	Belief that the guidelines are complicated
Subtheme C	Translation of visitor hand hygiene by clinicians in their patient care
Subtheme D	Enforced hospital policy
Theme 3	Environment and resources influence hand hygiene compliance
Subtheme A	Inadequate hand hygiene/resources
Subtheme B	Understanding of the role of the environment and transmission of HCAIs