VIEWPOINT

Banning the Handshake From the Health Care Setting

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The handshake represents a deeply established social custom. In recent years, however, there has been increasing recognition of the importance of hands as vectors for infection, leading to formal recommendations and policies regarding hand hygiene in hospitals and other health care facilities.[1] Such programs have been limited by variable compliance and efficacy.[1,2] In an attempt to avoid contracting or spreading infection, many individuals have made their own efforts to avoid shaking hands in various settings but, in doing so, may face social, political, and even financial risks.

Particularly in the current era of health care reform, innovative, practical, and fiscally prudent approaches toward the prevention of disease will assume increasingly important roles. Regulations to restrict the handshake from the health care setting, in conjunction with more robust hand hygiene programs, may help limit the spread of disease and thus could potentially decrease the clinical and economic burden associated with hospital-acquired infections and antimicrobial resistance. Effective development and implementation of such a handshake ban will likely require further study to confirm and describe the link between handshakes and the transmission of pathogens and disease; the promotion of an alternative, health-conscious gesture to substitute for the handshake; and widespread media and educational programs.

> "Handshake-free zone: to protect your health and the health of those around you, please refrain from shaking hands while on these premises."

Cultural Context

The handshake has evolved over centuries into its currently profound cultural role. Artifacts from ancient Greece suggest that the handshake began as a general gesture of peace, revealing one's open palm as a symbol of honesty and trust. The custom and technique of this open-palm gesture subsequently evolved into the modern form of the handshake, now representing an international symbol of greeting/departure, reconciliation, respect, friendship, peace, congratulations, good sportsmanship, or formal agreement. Beyond its interpersonal significance, the handshake commonly assumes commercial or political importance. In the health care setting, where patient encounters commonly begin and end with a handshake, the handshake has been shown to have the capability of improving the perception of the physician's empathy and compassion. Handshakes between health care practitioners and their patients have the potential to comfort and to calm.

Transmission of Communicable Disease

Scope of the Problem

Nevertheless, the hands of health care workers often serve as vectors for transmission of organisms and disease.[1,3-6] Health care workers' hands become contaminated with pathogens from their patients, and, despite efforts to limit the spread of disease, cross-contamination of health care workers' hands commonly occurs through routine patient and environmental contact.[1] The duration of survival of bacteria and viruses on the hands of health care workers varies by pathogen and environmental factors. Moreover, hand-related transmission of organisms in the health care setting can contribute to the burden of antimicrobial resistance.

Importance and Limitations of Hand Hygiene

Hand hygiene has long been recognized as fundamental for the prevention of hospital-acquired infections.[1] Improvements in hand hygiene have been associated with decreases in bacterial colonization and hospital-acquired infection rates.[1] However, compliance of health care personnel with hand hygiene programs averages 40%,[1,2] and patients and visitors to the health care setting generally also have low compliance with hand hygiene policies. Moreover, alcohol-based hand rubs, which have taken the place of handwashing in many health care settings, have limited activity against some pathogens, including *Clostridium difficile*.[3] At the same time, the efficacy of handwashing varies with details of technique, such as duration.[1]

Handshake Transmission of Pathogens and Disease

The infectious risk of the handshake has been described in the medical literature since the early 20th century.[6] Multiple studies have demonstrated that the handshake can and does transmit pathogens,[3-6] and widespread hand hygiene policies have been predicated on the well-established link between hand transmission of pathogens and disease.[1] Bacterial cross-contamination of volunteers through handshaking has been found to be more likely than with "fist bumping" on a surgical ward.[4] *Clostridium difficile* spores (a common cause of diarrhea in the health care setting) have been demonstrated to be transmitted via the handshake.[3] Moreover, the survival of bacteria transmitted via the handshake has been found to be prolonged in the presence of sputum.[5]

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Lessons Learned From the Banning of Smoking

Although the mortality associated with smoking has been found to be substantially greater than that associated with hospital-acquired infections, some parallels may be drawn between the proposal to remove the handshake from the health care setting and previous efforts to ban smoking from public places. Throughout the 1950s and 1960s, smoking represented a well-established social practice. In 1954, more than 50% of physicians in Massachusetts smoked cigarettes daily and, in 1962, 42% of adults in the United States smoked. During this same period, links between smoking, lung cancer, and coronary artery disease were becoming increasingly clear. In 1964, with the release of the first surgeon general report, *Smoking and Health*, came the suggestion to ban smoking, although with recognition that "such a proposal is not easily implemented."[7]

Given the deeply entrenched cultural role of smoking at the time, accepting the evidence of the harm associated with smoking, followed by banning smoking from public places, would take many years. Cigarette use has since been banned in public places throughout much of North America, including in commercial aircraft; many bars, restaurants, and theaters; and even college campuses of the University of California. In 2014, only approximately 18% of adults in the United States smoke, and smoking bans protect approximately half of Americans from secondhand smoke in the workplace. Removing such a deeply embedded cultural custom from social situations has involved, beyond formal bans/regulations, widespread media and educational efforts, as well as the development and promotion of effective alternatives, such as nicotine gum, in part because of the addictive nature of nicotine.

Alternative Greetings

Given the profound and pervasive social/cultural role of the handshake, any effort to restrict the handshake from the health care setting should consider practical and infection-conscious alternatives, along with extensive educational programs and appropriate signage, such as: "Handshake-free zone: to protect your health and the health of those around you, please refrain from shaking hands while on these premises."

Infection-conscious alternatives to the handshake may be found in a variety of secular and religiously based gestures from around the world. Some well-established gestures include the familiar hand wave (using an open palm, and practiced widely as an informal greeting/departure gesture) and placement of the right palm over the heart (as practiced in the United States while facing the American flag). Practiced predominantly in the Far East, the bow symbolizes reverence and respect but can also have a variety of secular/religious meanings and may signify greeting/departure, humility, obedience, submission, apology, or congratulations. The Namaste gesture, practiced for centuries throughout South Asia, has become increasingly prevalent in yoga practice throughout the world. By placing the hands, palms together, against the face or chest, and tilting the head forward, the gesture symbolizes respect and may carry religious significance among Hindus and Buddhists. In Thailand, the wai gesture functions similarly. The salaam (peace) gesture—wherein the right palm is placed over the heart, sometimes with subtle bowing—has been practiced among some Muslims and generally represents a symbol of greeting/departure and respect.

Conclusions

Banning the handshake from the health care environment may require further study to confirm and better describe the link between handshake-related transmission of pathogens and disease. Moreover, given the profound social role of the handshake, a suitable replacement gesture may need to be adopted and then promoted with widespread media and educational programs. Nevertheless, removing the handshake from the health care setting may ultimately become recognized as an important way to protect the health of patients and caregivers, rather than as a personal insult to whoever refuses another's hand. Given the tremendous social and economic burden of hospital-acquired infections and antimicrobial resistance, and the variable success of current approaches to hand hygiene in the health care environment, it would be a mistake to dismiss, out of hand, such a promising, intuitive, and affordable ban.

ARTICLE INFORMATION

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