Hand hygiene compliance: is there a theory-practice-ethics gap?

Manfred Mortell

Abstract

Practice is usually based on tradition, rituals and outdated information; there is often an additional gap between theoretical knowledge and its application in practice. This theory-practice gap has long existed (Allmark, 1995; Hewison et al, 1996). It often arises when theory is ignored because it is seen as idealistic and impractical, even if it is practical and beneficial. Most research relating to the lack of integration between theory and practice has concluded that environmental factors are responsible and will affect learning and practice outcomes. The author believes an additional dimension of ethics is required to bridge the gap between theory and practice. This would be a moral obligation to ensure theory and practice are integrated. To implement new practices effectively, healthcare practitioners must deem these practices worthwhile and relevant to their role. This introduces a new concept that the author calls the theory-practice-ethics gap. This theory-practice-ethics gap must be considered when examining some of the unacceptable outcomes in healthcare practice (Mortell, 2009). The literature suggests that there is a crisis of ethics where theory and practice integrate, and practitioners are failing to fulfil their duty as providers of healthcare and as patient advocates. This article examines the theory-practice-ethics gap when applied to hand hygiene. Non-compliance exists in hand hygiene among practitioners, which may increase patient mortality and morbidity rates, and raise healthcare costs. Infection prevention and control programmes to improve hand hygiene among staff include: ongoing education and training; easy access to facilities such as wash basins; antiseptic/alcohol handgels that are convenient, effective, and skin- and user-friendly; and organisational recognition and support for clinicians in hand washing and handgel practices. Yet these all appear to have failed to achieve the required and desired compliance in hand hygiene.

Key words: Hand hygiene ■ Theory ■ Practice ■ Ethics ■ Compliance ■ Healthcare associated infection (HCAI) ■ Evidence-based practice

The origins of hand hygiene and the empirical use of disinfectants date back to as early as 800 BC, when Homer reported the use of sulphur as a disinfectant in *The Odyssey*. The evolution continued with the discovery of chlorine in 1774 by Scheele, a Swedish chemist. In 1825, Labarraque, a French pharmacist, advocated the use of calcium hypochlorite for general sanitation, which included hand hygiene, in hospital wards.

The late 19th century ushered in the acceptance of Louis Pasteur's germ theory of infection, which started infection control practices that were the genesis of evidence-based practice (Block, 1991).

Dr Oliver Wendell Holmes in Boston in 1843 and Dr Ignaz Semmelweis in Vienna in 1861 advocated hand washing to prevent the transmission of infectious disease, specifically the bacterium *Streptococcus pyogenes*, which was implicated in puerperal sepsis. This is a serious form of septicaemia that results in unacceptably high mortality during or shortly after giving birth. Both physicians independently concluded that disease was transmitted from patient to patient by physicians' and nurses' hands and clothing (Block, 1991; Heseltine, 2001). Semmelweis instituted a strict hand washing policy with antiseptic in his practice; within three months, mortality rates decreased from 5–30% to 1–2% (Risse, 1980).

Scientific application of infection control practices started more than 180 years ago, with publications by Dr Ignaz Semmelweis in prominent British and Austrian medical journals endorsing hand hygiene (Hebra, 1847; 1848; Routh, 1849).

Hand hygiene transcends every culture. Biblically, the first mention of washing of the hands is in Exodus 30: 18–21: 'So they shall wash their hands and feet, so they die not.'

In Islam, the Qur'an (5.6) says that washing and cleanliness are paramount without exception. 'Wudhu' (ablution) is a mandatory act. The Qur'an says: 'For Allah loves those who turn to him constantly and He loves those who keep themselves pure and clean'; the prophet Muhammad said: 'Cleanliness is half the faith.'

Hand hygiene has become an integral part of our culture. Hand washing is taught at every level of school, advocated in the workplace, and emphasised during nursing, medical and paramedic training programmes.

The primary objective of hand hygiene recommendations has always been to reduce pathogen transmission and healthcare acquired infections (HCAIs) which, in turn, should reduce patient morbidity and mortality.

According to the NHS and the Centers for Disease Control and Prevention (CDC) in the US, hand hygiene is simple, cost effective and an important strategy in preventing the spread of infection. It is recognised as the single most important factor in reducing and preventing HCAIs (CDC, 2002; Health Protection Scotland, NHS National Services Scotland, 2007; Pratt et al 2007).

Hand hygiene has been recognised and practised for more than a century and is supported by evidence. Infection prevention and control (IPC) programmes recommend hand hygiene to prevent transmission of

Manfred Mortell is Clinical Resource Nurse—Adult Cardiac Surgical Intensive Care Unit, King Abdulaziz Cardiac Centre, King Abdulaziz Medical City, Riyadh, Kingdom of Saudi Arabia

Accepted for publication: June 2012

Downloaded from magonlinelibrary.com by 213.253.022.106 on September 24, 2018.