

The effectiveness of hand washing nursing essay



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This essay attempts to investigate whether hand washing is an effective technique in the prevention of the spread of infection. I will do this by analyzing the existing evidence in relation to the hierarchy of evidence. I will then use the Critical Skills Appraisal Programme (CASP) (2006) to discuss three studies, while looking at the related literature. Finally in the conclusion I will discuss how the evidence I have analyzed will affect my future practice. According to the centers of disease control (2002) hand washing is the simplest most effective measure for preventing the spread of bacteria, pathogens and viruses.

Hamer (1999) reports evidence - based practice aims to aid professionals in effective decision making to reduce ineffective, inappropriate possible hazardous practices. The strength of the hierarchy of evidence is that it acknowledges the valid contribution of evidence generated by a range of different types of research. However, hierarchies only provide a guide to the strength of the available evidence and other issues such as the quality of research also have an important influence (Evans, 2003). Cool et al 1992 suggest that the highest form of evidence available should be combined with the highest recommendation range as this suggests superior validity, applying these forms of evidence to practice should be considered. The Nursing and Midwifery Council (2008) guide lines would support this idea that the use of evidence-based practice is appropriate and necessary within the clinical setting. According to Duffy (2008) reflection is a development process, which should benefit the health care professional and their practice as a result. The Gibbs (1988) reflection model will be used throughout this essay to help reflect on the chosen aspect of nursing.

Gibbs model of reflection (1988) begins by giving a description of the event. While on placement I was caring for an elderly man. In a three hour period this patient had four episodes of a sudden need to have his bowels opened. Each time the stool appeared to be loose. After the third episode I told my mentor who told me to take a sample the next time he had his bowels opened. We also made other members of the team aware of this. Following these episodes the patient began to vomit frequently. My mentor along with the senior nurse decided that the patient should be placed in a side room to prevent the spread of a possible infection the patient may have. Once the patient had been transferred to his room all staff were to wear aprons and gloves when in the room and to wash their hands when leaving the room. My mentor explained to me that these steps were taken to prevent the spread of infection. I have decided to look at the evidence that suggests that hand hygiene helps to prevent the spread of infection as from talking to other members of staff they knew they should wash their hands for infection control reasons but knew little more.

The CASP (2006) tool will be used to appraise the chosen research. Search engines such as Internurse, Journal of advance nursing and Cochrane Collaboration were used. Three main bodies of research will be focused on throughout this essay.

Ejemot RI et al (2009) carried out a systematic review to evaluate the effects of interventions to promote hand washing on diarrhea episodes in children and adults. Two authors independently assessed trial eligibility and risk of bias. In order for evidence based medicine to be practiced clinical expertise and clinical evidence from systematic reviews need to be combined (Sackett <https://assignbuster.com/the-effectiveness-of-hand-washing-nursing-essay/>

et al, 1997). Incidence rate ratios (IRR) were pooled using the generic inverse variance method and random-effects model with 95% confidence intervals (CI). This systematic review was carried out in 2009 with 14 Randomized Controlled Trials (RCT) meeting the inclusion criteria. Randomised controlled trials (RCTs) are perceived as the gold-standard evaluation method for evidence based medicine and the rest to be a lower level evidence (Fielding et al, 2008). The evidence within this journal is considered to have a high impact factor. The impact factor of a journal reflects the frequency with which the journal's articles are cited in the scientific literature (Saha et al, 2003). The impact factor is used to determine the quality of a piece of evidence (Garfield, 2005). Eight trials were institution-based in high-income countries (7711 participants), five were community-based in low or middle-income countries (8055 participants), and one was in a high-risk group (people with acquired immune deficiency syndrome), these sample sizes are adequate, however the trials were carried out in various countries such as China, Australia, Europe, and North America where resources and materials for hand washing are relatively available and accessible with the exception of China. This may hinder the results. Results showed a 39% reduction in diarrhoea episodes in children in institutions in high-income countries and a 32% reduction in episodes in children living in communities in low- or middle-income countries. The author acknowledges the need for longer follow up periods.

Randle et al (2010) performed an observational study which measured healthcare workers' (HCWs'), patients' and visitors' hand hygiene compliance over a 24 hour period. The study took place in two hospital

wards in 2010. This study monitored a total of 823 hand hygiene opportunities. 659 (80%) of these participants were HCWs, 75 (9%) for patients and 89 (11%) for visitors. Of the 659 hand hygiene opportunities available to HCWs, compliance by doctors was 47%, nurses 75%, ancillary nurses and other staff 59%, and allied health professionals 78%. For HCWs, compliance did not vary between the two wards but did by shift with compliance being lower in the morning shift. The author has recognized variables that may have affected the results such as profession, ward type, time of day, type of opportunity and patient or visitors. The author also states the likelihood of HCWs being directly observed was very high. Such a bias might distort compliance percentages. The fact the study took place in one hospital may limit the findings as the specific infrastructure and organisation of work may influence behaviour. Direct observation is the gold standard to monitor compliance to optimal hand hygiene practice and we conducted observations using a previously validated hand hygiene observation tool. There are many advantages and disadvantages to using the direct observational technique. Evaluation brief (2008) state some of the disadvantages may be, observer bias, people usually perform better when they know they are being observed, although indirect observation may decrease this problem, Can be expensive and time-consuming compared to other data collection methods and does not increase your understanding of why people behave as they do. Advantages to the observational technique have been identified by DeWALT and DeWALT (2002) allows you to directly see what people do rather than relying on what people say they did which does not rely on people's willingness or ability to provide information.

Burnett et al (2008) conducted a quantitative study which aimed to study exploring perceptions of nurses and patients towards patient hand hygiene and addressing current practice in relation to patients who were unable to independently perform their own hand hygiene. From the results of this study it is clear that patient hand hygiene is an important factor in controlling and preventing HCAI, but patients still remain unable to carry out this task independently as they are not given the opportunity to do so. Opportunities for hand decontamination were identified. The results showed, 57% opportunities before meal times, 21% opportunities following use of the commode at the bedside, 2% opportunities after using the urinal, 5% opportunities after visiting the toilet, 4% opportunities following vomiting and expectoration of sputum. Ethical considerations were made such as asking for consent. The senior charge nurse gave verbal consent for the study to take place on the various wards. Staff nurses who agree to take part in the studies completed questionnaires that remained anonymous. Patients who took part in this research were asked to provide written consent and finally all participants were given appropriate information explaining the intent of the study. The Human Rights Act protects the right to respect for private and family life and thus supports the need for consent to participate in research (Masson, 2004). All research involving NHS patients or staff or conducted on NHS premises have to be approved by a NHS Ethics Committee (Center of research ethical campaign, 2009). The study approved by The hospitals Committee on Medical Research Ethics. Banfield and Kerr (2005) suggest that patient hand hygiene as HCAI continue to rise despite hand hygiene research and the implementation of a multitude of intervention strategies, the author acknowledges that there were limitations to the study.

Such limitations are that patients do not receive to opportunity to participate in correct hand hygiene procedure. The author also recommended that patient hand hygiene practices should become an important focus within infection control intervention strategies and consideration should be given to hand hygiene facilities when patients are unable to independently access hand washing sinks.

In conclusion I have recognised that there is a large sum of evidence that can be applied to practice in relation to this topic. Applying evidence-based practice within the health care setting faces many barriers such as staff not having the time or means to access or critique data. The most valuable lesson I have learnt throughout this essay is that just because there is research on a topic does not mean that this piece of work is either valuable or credible. Due to this I have realised research should be analysed to determine whether the information is useful and can be applied in practice. From the papers I have analysed I have realised that hand washing is in fact the most effective way to prevent the spread of infection but factors such as environment time and profession can affect people from washing their hands effectively. From undertaking this assignment I feel that I will continue to access evidence which underpins our practice throughout my career.