

## The Critique

Scientists have undertaken various researches, but for many years they were not sure whether wearing a face mask is helpful at inhibiting the spread of different viruses. Nevertheless, present studies have suggested that using a face mask is helpful in preventing the spread of viruses. Inside operating theatre the surgical mask has been the symbol of a safe and hygienic environment (Beaumont, 2010). However, it has been frequently identified that non-scrubbed staff do not wear face mask inside operating theatre. While non-scrubbed staff do not use face mask inside operating theatre, curiosity has developed to find out whether using face mask is crucial to prevent surgical site infection. According to a study published in 2008 by the International Journal of Infectious Diseases, if face masks are used correctly, it is extremely helpful in inhibiting the spread of viral infections (Mattern and Ek, 2010). Another study reported by the Annals of Internal Medicine found that the participants have reduced the possibility of getting flu by 70% when they wore masks. In health care set-up, operation theatres are sensitive places, where chances of the spread of infection is tremendously high (Sellden, 2010). This is because majority of the surgeries are performed inside operation theatres and the human systems get exposed to the surrounding environment. Therefore, maintaining aseptic condition is highly recommended. This also diminish the chance of spreading nosocomial infections. To ensure this, doctors, and other health care professionals working inside operating rooms always wear facemasks while treating patients. Face masks prevent large droplets of biological fluids, which may contain microbes from releasing via mouth and nose. Face masks protect against sprays and splashes from others too, for example: coughs and sneezes etc. One major disadvantage is that face masks fail to avoid the breathing of small and airborne contaminants. In terms of its significance, the CDC (Centres for Disease Control) has revised its associated guidelines and obligate the use of facemasks in 2010 (Davis, Spady and Forgie, 2007).

This article aims to evaluate a research carried out by Webster et al. (2010) that demonstrated the impact on surgical site infections due to the presence of unmasked non-scrubbed staff members in the operation theatre (Webster et al., 2010).

The researchers have employed randomised controlled trial in order to carry out this research. Therefore, they have selected participants undergoing gynaecological, urological, orthopaedic and general surgery in a tertiary hospital. As this study strives to find out the impact on

surgical site infection, selection of these participants are of utmost importance. The impact on surgical site infection was identified by using in-patient surveillance, chart reviews and follow-up after discharge. The researchers have successfully carried out the research by dividing the sample into masked and non-masked staff members. They have derived the result using statistical analysis. It was demonstrated that masked staff members had no statistically significant effect on surgical site infection development. This analysis was also supported by a previous study that showed low infection rate in unmasked group (Lipp, 2012). On the other hand, an experiment by Barbosa and Graziano (2006) have demonstrated that masks are not very significant than other factors, such as: duration of hospital stay, duration of surgery, weight in avoiding surgical site infection (Barbosa and Graziano, 2006). In this experiment the staff members were divided into two masked and unmasked groups in a half-an hour operating session. From the air sample it was recovered that unmasked members were failed to infect operating vicinity. Even, the organisms were different to those found in the infected wounds.

From various researches it is evident that wearing mask throughout the long procedure of operation is a difficult factor while working inside operating room. This is one of a reason for many health care professionals of not selecting surgery as a career option. However, group of anaesthetists have suggested that masks are compulsory for the scrub team.

Extensive follow-up was a strength of this research study. The researchers have used hospital data and medical records and information from follow-up clinics, which ensured the reliability and authenticity of the gathered data. However, in case of the unavailability of the data, individual patient were contacted via phone and enquired about their wound. In some cases, patients' general physicians were also contacted. The individually contacted patients were pleased, as they were given a chance to openly discuss their hospital experience. This ensures the reliability of the patients' response. One limitation of this study was that the research was underpowered, that could result in high variance. However, the researchers have further suggested to repeat this experiment as similar trial to ensure validity of this research study.

## References

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