

ABSTRACT

Effectiveness of Physical Space Manipulation Against Total Germs reduction rate, Pathogens, TB Germs (Comparative Studies in Space Inpatient Room of Surabaya Lung Hospital)

Inpatient conditions must be considered, both physical and bacteriologist. Frequent contact between workers, patients and visitors, is most likely to happen transmission of the disease, both through the air, as well as a result of the activities of inpatient residents themselves. Physical condition does not suitable the standard, it can causes in psychological impact for the patient and will get more time of the healing process, this means inefficiency for hospitals. In addition, the bad physical room's condition, also affect to the number of bacteria that exist in the patient room. The research objective was to determine the effectiveness of manipulations physical room's condition of a decrease in the total number of bacteria, pathogens, germs of TB, and the long of stay patients in the inpatient unit class III on Surabaya Lung Hospital.

This research was a descriptive study, by comparing the results of the physical examination and bacteriological air, swab the floor, and the long of stay before and after manipulation of the physical room's condition.

The results showed that the improvement of the physical room's condition includes the installation of turbine ventilators, wall mounting fan, additional lighting, and ventilation optimization, effectively reducing the number of germs total of 69,39% of air space and the number of bacteria swab the floor by 81%, effectively increasing the intensity of illumination amounted to 85,14%, and effectively shorten length of stay 14,78%. While the temperature and humidity, manipulation attempts in the inpatient unit class III Surabaya Lung Hospital less effective. Similarly to the numbers of pathogenic bacteria and germs of TB, the effectiveness of the manipulation was less visible, because the results before and after treatment were negative.

So it could be conclude that the physical condition of a high-low effect on the total number of bacteria in the room. With physical conditions taken corrective action could reduce the number of germs room air and floor space, increase the intensity of illumination, and shorten the average length of stay especially in the diagnosis of diseases Duplex Pulmonalis Tuberculosis, Pulmonalis Tuberculosis with Positive Smear, Pulmonalis Tuberculosis with Therapy on Chronic, Bronchitis Asthma, Bronchitis, Pulmonalis Tuberculosis with Pleura Effusion.

Keywords: effectivity, humidity, temperature, light, lung hospital, number of germs.