ABSTRACT
The level of airborne microbial load of hospitals indoor is unknown in Benin City, Nigeria. A study of the quality and quantity of airborne microflora in two major hospitals, the Faith Medical Center and Central Hospital in Benin City was carried out to establish standard for future reference. Samples were collected using the settled plate techniques for the enumeration of bacterial and fungal isolates. Each day, the air samples were collected thrice: in the morning between 10am and 11am, in the afternoon between 12noon and 2pm and in the evening between 5pm and 6pm. The total heterotrophic microbial population of the five different wards studied from the two hospitals varied from ward to ward. The highest bacterial population was recorded in the evening between 5pm and 6pm compared to the morning and afternoon, ranging from 15cfu m$^3$ to 47cfu/m$^3$ in the Faith Medical Hospital and 17 cfu/m$^3$ to 52cfu/m$^3$ in the Central Hospital, with the children ward recording the highest bacterial counts of 47 cfu/m$^3$ and 52cfu/m$^3$ in the Faith Medical Center and Central Hospital respectively. The concentration of fungal population in air of the five different wards in the two hospitals studied was recorded high in the evening, with values ranging from 10 cfu/m$^3$ to 53 cfu/m$^3$. At the three different times of the study, the male, female, children wards and bacteriological laboratory were observed to record high fungal population in the Faith Medical Center and the Central Hospital. The microbial isolates characterised and identified include six bacterial and four fungal genera, among which are bacterial isolates: *Staphylococcus aureus, Staphylococcus epidermis, Escherichia coli, Pseudomonas aeruginosa, Proteus mirabilis* and *Klebsiella aerogenes* and fungal isolates include *Aspergillus, Penicillum, Mucor and Fusarium*. The degree of frequency of microbial distribution was high in the bacteriological laboratory and female ward and lowest in the operating room (Theater).