





# 16th International Conference on Food Microbiology

Peracetic acid fogging and Personal traffic effects on microbial air quality and comparison between number of air total fungi and bacteria in food processing area

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**Objective** – Microbial contaminants, if entering into the product, will most likely affect the product adversely, the contamination can influence the shelf-life and food safety. The airborne dust particles can introduce foreign matter including microbial contaminants into the products. This study constitutes a descriptive analysis of the hygiene/sanitation conditions implemented in a food industry. we were evaluated the effects of peracetic acid fogging and also personnel traffic in production section air quality. The results should help risk managers to better define control measures to be adopted in order to prevent foodborne infections.

Material and methods - Peracetic acid diluted with Reverse Osmosis water to obtain 150 ppm solution and fogging, sampling performed in three steps, before fogging and after fogging included at-rest (static) and in-operation (dynamic) status using of passive air technique on tryptic soy agar and dicoloran glycerol agar cultures. After incubation the Total Viable and fungi counts were evaluated.

**Results-** In all statuses the number of bacteria were 95.8 CFU higher than fungi, both were significant after fogging (Anova, P < 0.05) although they decreased during rest and increased during production comparing before fogging. Bacteria and fungi CFUs decreased about 71.8% and 54.8% respectively after fogging. personnel increased microbial air contamination comparing to other times and CFU increased about 80.6% comparing to the "at-rest" time and 46.1% comparing to the "at before fogging" time for all microorganism.

**Conclusion-** the results showed bacteria are amount 17% more sensitive than fungi to PPA fogging. Our results showed one worker spread about 0.26 microorganisms per min. air microbial quality in the condition without cleaning, disinfection and with no personnel presence was better than the personnel presence time after the cleaning, disinfection and fogging, in other words personnel presence can affect on air quality as much as other mentioned methods.

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## Effect of Nutritional Education Program on Anthropometric measurement of Type-2 diabetic patients in Raipur city

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The study was focused on effect of nutritional education program on anthropometric measurement of type-2 diabetes patients in the Raipur city, Obesity is a major risk factor in the type 2 diabetes mellitus patients(T2DM). The present study was aimed to compare the association between Pre and Post anthropometric measurements of type 2 diabetes mellitus patients. This study was done on 300 diabetic patients 192 male and 108 female patients. The functional food like; Fenugreek seed, flaxseed, centrathrum anthelminticum (kaali jeeri), nigella sativa (kalonji), almonds are very beneficial food to manage obesity of the type-2 diabetes patients. These functional foods are good source of fibre, magnesium, and other good micronutrients. The nutritional education program become more helpful to lose weight and manage to waist hip ratio of the patient's and assessment of Knowledge, Attitudes, and Practices (KAP) test of the patients. According to nutritional education program calorie, fat were reduced and protein, fibre intake of the patients were increased. In pre-test frequency the 62 patients were found obese, and after post-test frequency 51 patients found obese. The KAP test is a crucial element of diabetes mellitus control. The KAP test was became very beneficial among diabetes patients to management of obesity. So the patients reduced obesity due to nutritional education program.

**Keywords:** Knowledge, Attitudes, Practices (KAP), Diabetes Mellitus (DM), Nutritional Education Program (NEP), Centrathrum Anthelminticum (kaali jeeri), Nigella Sativa (kalonji).

### **Biography**

Shilpi Jain has her expertise in evaluation and passion in improving the health and wellbeing. Her open and contextual evaluation model based on responsive constructivists creates new pathways for improving healthcare. She has built this model after years of experience in research, evaluation, teaching and administration both in diet and education institutions. The nutritional education program become more beneficial among type 2 diabetes patients by her approach and hard work.

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