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Identification and characterization of bio-remediating bacterial isolates from soil and water

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Bioplastics are natural biopolymers have certain advantages over petroleum-derived plastic that do not cause toxic effects in the host. These are synthesized and catabolized by various microorganisms as a by-product. The world is currently using approx 140 million tons of plastics per annum consuming approximately 150 million tons of fossil fuels for processing of these plastics. Substitution of such a big demand is difficult for coming eras therefore bi-plastic provide a base for this industry as eco-friendly plastic. These biopolymers accumulate as storage materials in microbial cells under stress conditions. The most widely produced microbial bioplastics are polyhydroxyalkanoates (PHAs) and their derivatives. Ralstonia eutropha H16 is a gram-negative, rod-shaped, and facultatively chemolithoautotrophic hydrogen-oxidizing bacterium that serves as a model organism for polyhydroxyalkanoate (PHA) metabolism. Mainly found in soil and water and this bacterium has great ability to use in bioremediation, as it is able to degrade a great number of chlorinated aromatic (chloroaromatic) compounds and chemically related pollutants. Therefore, in the study the different isolates of bacteria strains were isolated from different soil and water sources. To identify these bacterial strains a 16S rDNA gene based approach was applied. Genomic DNA isolated using Gen Elute Bacterial Genomic Kit (Sigma). PCR conditions optimised to amplify 16S rDNA by using universal known primers set of rDNA at different annealing temperature in a gradient PCR. The PCR amplicon sequenced commercially and phylogentic analysis done by sequence homology search with the known sequences from the gene bank and taxonomic position of the new isolates was established.

Biography

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Training technology users is waif

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Introduction: In recent decades, health care systems has greatly influenced by the technology development And the technology help to enhance quality of care, reduce costs and improve patient care. These technologies can be helpful only when they are applied to the correct way. So appropriate training for technology application and impact of education on how the application appears to be essential.

Objectives: This qualitative study conducted to explain how using technology in nursing education has been made.

Methods: In this study, qualitative method used for analyzing content of 24 interviews in nurses who were occupied in hospitals affiliated to Isfahan University of Medical Sciences. They Selected by using purposive sampling and were nurse, head nurse, supervisor and chief nurse managers were interviewed. Interviews conducted in deep semi-structured interviews (2 focus group and 13 individual interviews) and after interviews transcription, qualitative content analysis used for coding and classification of data.

Finding: 160 initial concepts revolved after content analyzing and seven major themes inferred from 23 common sense.

Conclusion: Content analysis is suitable method for answer to questions which have been answered rarely about technology. The results of this study showed that although the training and information about using technology conducted but formal training quality is no "sufficient and qualify". In addition, there is no documented information about how is training workforce for implicating and maintaining technology.

Keywords: Heath care technology, nursing research, qualitative research, training.

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