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VIRTUAL REALITY AND STIMULATION OF -TOUCH AND SMELL FOR INDUCING RELAXATION-

Advent of virtual reality made it possible to mimic real-life scenarios and environments with the the help of 3D computer graphics aided simulations. VR has enabled human-being to experience diverse set of environments in an artificial manner without actually being there, but at the same time giving the sense that they are in actual location. Aim of the experiment carried out was to measure how different emotions get affected by exposure to same VR environment with stimulation of different senses.

Experiment involved 136 participants partitioned as 84 women and 52 men, ages are ranging from 18 to 63 years. Participants were subjected to three measurments. Clinical Assessment Questionnaire, Beck Depression Inventory II, and State Trait Anxiety Inventory to respectively to determine clinical symptoms. Participants were alloted to four different groups randomly. VR environment employed in this experiment was simulating “House-of Relaxation” a house located in meadow. In that house in order to improve MIP (mood inducing procedure) participants can perform different actions such as adjusting the intensity of lights, changing the landscape to project distinct natural conditions, modifying the color of walls and changing the floor type. First group was tested with only visual and hearing stimuli, second group was tested by adding extra tactile stimuli, third group was tested by adding olfactory stimuli instead of tactile, and last group was tested by adding all these stimulis (visual,hearing,tactile,olfactory). Only the groups for which a sense of touch was induced urged to touch an artificial grass; similarly only the groups in which olfactory stimulus was utilized are given a duty to smell the lavender scent. All subjets watched a video with relaxing scene and selected relaxing self-statements. As a result of this experiment using VR-MIP to induce relaxation along with the sense of presence has an considerable effect on increasing relaxation levels and reducing arousal levels. Results showed substantial changes for other emotions as well (rise in joy and affective valence, decline in anxiety and sadness).

To conclude, outputs of this experiment has ratified that “House of Relaxation” VR-MIP was efficient in inducing relaxation in an controlled fashion. Additionally stimulation of touch and smell senses are capable of increasing efficency, particularly sense of touch can lead greater efficacy as it provides more sensorial information.