

## Evaluation of sound pressure level, the personnel's knowledge and their attitude over noise pollution in one of the educational hospitals of Zahedan

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### Abstract

Noise is an unwelcome harmful factor in hospital environments. This study was conducted aiming at evaluating sound pressure levels in different parts of an educational hospital, the knowledge of that hospital's personnel over sound pressure level, and their attitude towards it. In this cross-sectional study, the knowledge of 29 doctors, 63 nurses, 58 clerks, and 25 orderlies was checked. All questionnaires were distributed among the personnel through simple random method, after determining the reliability and validity of them. Sound pressure level was measured by Cell 450 sound meter of the UK from the height of 150 cm, and the gathered data were analyzed by Chi-square test and SPSS software. The results of the present study indicated that, there is a meaningful relationship between job rank of an individual and sound knowledge grade of the same person ( $P < 0.05$ ), but the relationship between the job rank of a person and his attitude score was proven to be meaningless. Measurement findings after data analysis showed that, sound pressure levels and sound interference levels in all the studied parts were higher than the recommended limits in hospitals, and average sound levels of the hospital in different parts of it equaled 56.3 decibels (dB). Gaining knowledge over sound/ noise effects, improving the personnel's attitude towards this subject, and regulations observance could be influential in work environments.

**Keywords:** Sound, Knowledge, Attitude, Hospital, Sound interference level, Sound pressure level.

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