NURSE AND NOISE

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IF SILENCE is Golden, noise is an invisible enemy when we consider the hazards caused by it. Noise is potentially capable of causing defective hearing and many diseases including cardiovascular affliction. In hospitals noise can ruin the sick whose defensive mechanisms, both physical and mental, are already at the lowest ebb.

The hospital staff, nurses included, are to a great extent responsible in causing noise, little knowing about its consequences on the suffering patient. Nurses in the hospital can do a great deal in noise control.

What is Noise ?

Noise is a sound complex containing a number of unrelated frequencies of pressure-waves in air. It is also loosely defined as an unwanted sound that disturbs the people subconsciously.

Intensity of sound is described in decibels and various notations used are : db, dB and dBA. A noise level above 40 dB is said to be harmful.

The following is the list of few common sources of sound and their intensity :

10 dB	...	leaves rustling in the wind
20 dB	...	whisper
40 dB	...	quiet room
60 dB	...	conversation
80 dB	...	Motorcycle
104 dB	...	Approach to big airport
120 dB	...	Threshold of pain
150 dB	...	a jet plane at close distance (can kill a rat)

Our reaction to noise is part of our built-in-alarm system which signals when we are in danger and keys us up for defence or flight. A sudden loud noise causes muscle tension, blood pressure rise, fast pulse rate, all in less than one fifth of a second. Therefore, repeated loud noises will be exhausting to the body which may lead to accidents.

Prolonged tension may be the starting point for one of the stress diseases such as duodenal ulcer, migraine or even a nervous breakdown.

Effects and Noise

In United States, one person in ten is estimated to have defective hearing. This affliction is attributed largely to the permanent increase in noise of all kinds.

Russian Scientists believe that noise is responsible for many diseases, including cardiovascular affliction. In France 500 soldiers were subjected to a continuous noise of 90 decibels for 15 mins. An hour later 350 of them were found to suffer from a doubled margin of error of vision and 375 also went color-blind for an hour. The French Academy of Medicine cites noise as a contributory factor in 52 per cent of heart and nervous ailments. A W.H.O. study states "The potential cost of noise-induced hearing loss probably exceeds that of any other occupational disease when estimated in terms of compensation and increased accident rates."

When noise is potentially capable of making healthy people cripples, it can no doubt ruin the sick whose defensive mechanisms, both physical and mental, are already at the lowest ebb. This brings us to realise the importance of silence, particularly in hospitals. Since comfort of the sick is often related to a quiet environment, it is realised that noisy conditions can adversely affect the sick both psychologically and physiologically.

The growing diversities of hospital services, the increased use of mechanical and electrical equipment as therapeutic and labour saving devices and the use of light-weight construction materials tends to increase the problem of noise control. Added days of hospital-care, extended convalescence or incomplete recovery may result from patients' insufficient bed rest resulting from noisy hospital conditions. The monetory loss to the community and to the individual in terms of lost working days from prolonged hospitalization calls for adequate budgetory provisions for noise control.

Sources of Noise

HOSPITAL NOISE SOURCES may be classified into : (A) Intramural, (B) Extramural.

Intramural : The number of noises in this category is higher. These can be grouped as (i) Mechanical equipments; (ii) Operational facilities ; (iii) Patient service facilities; (iv) Personnel activities and (v) Patients and visitors.

Boilers, transformers and airconditioning equipments produce noise which can be controlled by proper maintenance.

Sick hospital buildings produce sounds. Operational facilities such as Elevators, refrigerators, drinking fountains, dish washers, sterilisers and autoclaves, plumbing units, toilet facilities, furnishings, housekeeping facilities and communications like telephone bells and buzzers cause noise.

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