

Impact of Disability, Workplace Stress and Other Associated Factors on Quality of Life among Nurses with Non-Specific Low Back Ache in Dehradun

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ABSTRACT

Introduction: Non-specific low back pain is defined as low back pain not attributable to recognizable known specific pathology (infection, tumor, osteoporosis, fracture, structural deformity, inflammatory disorder, radicular syndrome or cauda equina syndrome). Nursing the biggest health care profession is globally dominated by female population. Nursing care also includes guiding the patients to prevent illness through hygienic living and helping him to use the available community resources for the same. Nurses stand for long periods of time and perform repetitive lifting and patients transfer that are associated with low back pain.

Materials and Methods: A total number of 100 subjects (females) have participated in the study. These subjects were the working nurses from private hospitals, government hospitals and various nursing homes in and around Dehradun.

Results: Correlation of data between WPSS & WHOQOL given statistically significant value, Workplace Stress & Disability given statistically significant value, WHOQOL & Disability given statistically non significant value.

Conclusion: Present study aimed to evaluate the impact of disability due to nonspecific low back pain along with workplace stress and other associated factors on Quality of Life among nurses as related to age, height, weight using questionnaire survey and interview based evaluation method. The study indicated that large numbers of nurses of Dehradun were affected due to low back pain.

Keywords: Low Back Pain, Quality of Life, Work Place Stress, Disability

INTRODUCTION

Nonspecific low back pain is defined as low back pain not attributable to recognizable known specific pathology (infection, tumor, osteoporosis, fractures, inflammatory disorder and cauda equina syndrome). It has become a major public health problem worldwide. The prevalence of low back pain is reported to be as high as 84% and the prevalence of chronic low back pain is about 23% with 11-12% of the population being disabled by low back pain.¹

Nursing the biggest health care profession is globally dominated by female population. Today nursing is not limited to just delivering expert physical care to the sick but also involves helping the patient to adjust to unalterable situations

such as personnel family and economic conditions, teaching him and others at home and community to take care of one another. Nursing care also includes guiding the patients to prevent illness through hygienic living and helping him to use the available community resources for the same.²

In the hospital environment nurses are known to be a high risk group because of patient lifting and other postural requirements of their job. An estimated 12% of nurses leave the profession annually because of back injuries and over half of them complain of chronic back pain, lifting and moving patients manually has been identified as a high risk activity.

One study showed that 18% of nursing personnel stopped working because of low back pain.³

Epidemiological studies show that work related risk factors such as lifting, twisting, bending, exposure to whole body vibration and prolonged postures play prominent roles.⁴ Nurses stand for long periods of time and perform repetitive lifting and patients transfer that are associated with low back pain.⁵

It is generally accepted that nursing staff belong to the group of high risk professions with regard to the occurrence of musculoskeletal injuries especially in the area of the lumbar spine. The Health related quality of life in nurses is closely related to their physical and mental well beings. Their Health related quality of life may directly or indirectly affect the quality and safety of medical service and finally influence the health of the population at large. Occupational stress in the absence of adequate coping resources can lead to severe mental or physical illness and finally to a decrease in health related quality of life.¹⁰

MATERIAL AND METHOD

A Total number of 100 subjects (females) have participated in the study. These subjects were the working nurses from

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private hospitals, government hospitals and various nursing homes in and around Dehradun.

Inclusion criteria

Nurses included if they were currently working for a period of at least 1 year in hospital, only females nurses were included and low back pain since 1 week.

Exclusion criteria

Previous history of back surgery, spinal deformities, malignancy, osteoporosis, multiple sclerosis, pregnancy and medications

Outcome measures

World Health Organization Quality of life, Oswestry Disability index and Work place Stress.

World Health Organization Quality of life was designed for the assessment of quality of life. And Here the responses obtained was divided into 4 domains representing physical, psychological, social relationship and environmental. Each domain has its individual transformed score range from 0-100 and as we approach towards the 100 on scale the quality of life improves.

The Oswestry disability was developed to measure disability in people with low back pain.

Scores ranging from 0-20% were claimed to indicate minimal disability, 20-40%-moderate disability, 40-60%severe disability 60-80%crippled and 80-100%bedbound or exaggerating.

Workplace Stress was developed to measure stress level in people with low back pain.

Total score of 15 or lower (33%)-stress isn't much of an issue.

Total score 16-20(35%)-Fairly low

Total score 21-25(21%)-Moderate stress

Total score 26-30(9%)-Severe

Total score 31-40(2%)-Stress level is potentially dangerous.

Procedure

Nordic pain Questionnaire was taken and subjects were explained with the procedure to fill the questionnaire and low back pain nurses were identified. Based on inclusion and exclusion criteria different scales were used as Oswestry Disability Index which was used to measure disability in people with low back pain, World Health Organization Of Quality Of Life for the assessment of quality of life, Nordic musculoskeletal questionnaire for the musculoskeletal disorders in ergonomic context and Work Place Stress Questionnaire to measure stress level.

STATISTICAL ANALYSIS

Data analysis was done using SPSS 16.0 version. Descriptive analysis was done to calculate the mean for age, weight

and height of subjects. Independent T-test was done to compare ODQ, QOL and WPSS and statistical significant level was set at <0.05.

RESULT

The mean of AGE, BMI, OLBPDQ, WPSS, and WHOQOL was found to be 29.930±7.64, 22.453±5.26, 7.02±5.57, 27.280±8.852 and 85.450±6.296 respectively. Low Back Ache was assessed by NMPQ. The scores were correlated between OLBPDQ, WPSS and WHOQOL. Correlation of data between WPSS &WHOQOL Given statistically value $p=.037$. Workplace Stress &Disability given statistically significant value $p=.016$. WHOQOL &Disability given statistically non-significant value $p=.573$

DISCUSSION

Fradlos E. et al described in his study nursing profession is consider to be one from the harder professions globally and is characterized by great workloads, fast pace and intensity of work. According to researchers so far burnout does not occur in the shorthorns, but gradually escalating, thereby creating long term problems, such as feeling of hopelessness, distress, and failure to work requirements, which have an impact on all areas of human life.²

Quality of life is considered to be related to attaining a healthy and productive lifestyle and therefore, have been an investigated parameter in many studies. WHO Denies quality of life as individuals perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns. It is a broad ranging concept affected in a complex way by the person's physical health, psychological state.^{2,3} According to Nisha J. et al. studies on the association between occupational risk factors and low back pain are ham-

	Mean	SD
Age	29.930	7.64788
BMI	22.453	5.26970

Table-1.1: Demographic Data

	Mean	Std Deviation	N
OLBPDQ	7.0200	5.57407	100
WPSS	27.280	8.85242	100
WHOQOL	85.450	6.29634	100

Table-1.2: Descriptive Statistics of OLBPDQ, WPSS & WHOQOL

	N	Minimum	Maximum	Mean	SD
Age	100	21.00	59.00	29.930	7.64788
BMI	100	9.75	48.24	22.453	5.26970
Valid N	100				

Table-1.3: Descriptive Statistics of AGE & BMI

pered by the difficulties of measuring specific exposures. Many studies are limited by the absence of more quantitative measurements of manual material handling task parameters, and risk of low back injury may be entirely a result of the design of the work- place as opposed to individual differences among the workers. Self-reported questionnaire-based assessments tend to overestimate physical load on the back from bending and lifting compared with hourly self-reported logs of the same activities.⁶⁻⁷ The relative timing of the onset of low back pain and work exposure is also often uncertain. The healthy worker effect (workers with back pain leave a job, resulting in a surviving workforce with healthier backs) may introduce significant bias. Work place factors, including physical and psychosocial factors and their interaction, are strong determinants of back pain. Psychosocial risk factors at work (perceived high pressure on time and workload, low job control, job dissatisfaction, monotonous work and low support from coworkers and management) appear to independently increase the risk of hospitalization for back disorders, with a 3.2-fold increase in a low-control job compared with a high-control job.¹⁰⁻¹⁵

According to Shaher H. Hamaideh there are numerous sources of occupational stress among nurses, in particular. Occupational stressors among mental health nurses are varied; some of these stressors may be related to personal issues, while some of them may be related to workplace and service user issues. These stressors include: increased workload and administration, lack of time management, inappropriate referrals, role conflict and ambiguity, safety issues, lack of supervision, not having enough time for personal study, low general working conditions, lack of social support from colleagues and supervisors, and reduced advancement opportunities (Jenkins & Elliott, 2004). Occupational stress in mental health nursing can have an effect on the physical and psychological health of nurses who work in mental health settings. High stress level can lead to severe clinical distress, Psychomatic illness, and reduced service provision and burnout, increased absenteeism and turnover, and reduced quality of life. Occupational stress leads to emotional exhaustion, including symptoms such as feeling of depression, hopelessness, and helplessness. According to Julia Smedley et al. of the occupational activities but studied, manually moving patients around on the bed, transferring patients between bed and Chair and lifting patients up from the floor were associated with increased risk of back pain, and the associations persisted after adjustment for height and report of non-musculoskeletal symptoms.¹⁰⁻¹⁵ In contrast, no association was found with lifting or transfer-ring patients with a hoist or with canvas and poles. In general, this pattern of risk is consistent with biomechanical evaluation.¹⁵

FUTURE RESEARCH AND LIMITATIONS

The future study can also be done by dividing the groups on

the basis of wards, ICU, same workplace environments and different working areas. Also the study can be done on male subjects. And also it can be done by taking large sample size and specific age group.

CONCLUSION

The conclusion of the study revealed the impact of disability occurred due to non specific low back pain on workplace stress and other associated factors on quality of life among nurses as related to age, height, weight using questionnaire survey and interview based evaluation method.

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