Original Article

Quality of life in construction workers of Lahore, Pakistan

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Objective: To determine the quality of life (QOL) in construction workers.

Methodology: This is observational cross-sectional study male workers of Lahore. A Performa with validated SF 36 questionnaires will be distributed among workers. Data were analyzed by SPSS 25.

Results: Out of 201 workers, 75.1% were married and 56.7% were smoker. Mean age was 36.68 ± 11.326 years. Deviation of physical function was 47.4627 ± 7.38443, role limitations due to physical health was 42.7861 ± 41.35455, role limitations due to emotional problems was 68.3250 ± 43.04407, energy/fatigue was 38.8806 ± 16.19771, emotional well-being was 54.7463 ± 12.20903, social functioning was 92.4751 ± 14.36574, pain was 48.1592 ± 26.66987 general health was 45.2985 ± 8.46525 and health change in one year was 35.32 ± 20.519.

Conclusion: There was overall moderate quality of life in construction workers. Social function domain had excellent QOL. Energy, emotional well-being and general health domains had good QOL and domains which had poor QOL werephysical function, role limitation due to physical health and emotional problems.

Keywords: Quality of life, construction site workers, occupational hazards.

INTRODUCTION

The study of QOL among population was a very important step in understanding and improving physical and mental health.[1] Construction workers are exposed to work related dangers such as exposure to chemicals and physical demanding 8 – 10 hours' work a day.[2] Asthma occurs due to causative agents, adds to the worsening QOL of workers.[3] Construction workers may be exposed to allergens.[4] Bad posture was main factor that leads to work related musculoskeletal disorders (WMSDs), especially lower back pain.[5,6] In some environments, wounds was expected to WMSDs.[7] Carrying heavy loads often lead to life threatening condition with no safety of workers at risk.[8]

Construction workers were found to be malnourished because of low salaries.[9] Musculoskeletal disorders (MSDs) affects the lives of workers by affecting their ADLs which leads to slow economic growth and results in poor QOL.[10] Most experience pain and fatigue due to their work.[11] This study mainly aims to understand the quality of life of construction workers in different domains and main objective was to determine the level of work stress affecting worker's general, physical and emotional health and social activities and to put forward measures to improve QOL in construction workers.

METHODOLOGY

This observational cross-sectional study was conducted in different under construction areas of Lahore. Non-probability convenient sampling technique was used. Only male workers 18 to 60 years of age were included. Performa with SF 36 questionnaires was distributed among 201 construction workers. SF-36 is a valid and reliable instrument for evaluation of HRQOL. Internal consistency was adequate for all (Cronbach $\alpha \geq .728$) but Social Functioning (Cronbach $\alpha = .527$) and General Health (Cronbach $\alpha = .693$) subscales. Ceiling ($\geq 36\%$) and floor ($\geq 22\%$) effect rates were the greatest for the role Limitations subscales. The SF – 36 subscales pertaining physical health correlated the strongest with the BI score, while the emotional health with the BDI-II score.[12]

Statistical Analysis: The data were analyzed using SPSS version 25.

RESULTS

Out of 201 workers, 75.1% were married. Mean age was 36.68 ± 11.326, 56.7% were smokers. In this study, most were laborer and plumbers (Table 1). Mean and Std. Deviation of physical function, role limitations due to physical health, role limitations due to emotional problems, energy/fatigue, emotional well-being, social functioning, pain, general health and health change in one year are shown in Table 2.

The SF-36 has eight scaled scores; the scores are weighted wholes of the inquiries in each segment. Scores go from 0-100. Lower scores are equal to more disability; higher scores are equal to less disability.

Table 1: Socioeconomic Status.

Variable	Construct	Frequency	Percent
Marital status	Married	151	75.1
	Unmarried	50	24.9
Smoking	Yes	114	56.7
	No	87	43.3
Occupation	Laborer	82	40.8
	Electrician	27	13.4
	Plumber	33	16.4
	Painter	30	14.9
	Carpenter	29	14.4

Table 2: Domains of quality of life.

Domain of QOL	Mean	SD	Minimum	Maximum	Percentiles		
					25	50	75
Physical Function	47.46	7.384	25	60	45	50	50
Role limitations due to physical health	42.79	41.355	0	100	0	50	100
Role limitations due to emotional problems	68.33	43.044	0	100	0	100	100
Energy/fatigue	38.88	16.198	0	85	25	40	50
Emotional well-being	54.75	12.209	32	92	44	52	64
Social Functioning	92.48	14.366	50	100	87.5	100	100
Pain	48.16	26.67	0	100	22.5	45	67
General Health	45.30	8.465	10	65	40	45	50
Health change in one year	35.32	20.519	0	75	25	25	50

DISCUSSION

In the present study, out of 201 workers, 75.1% were married and 56.7% were smokers, same like a previous study most of the respondents 93.5% were married and 58.1% of them had the habits of smoking cigarette.[13]In the present study, mean age was 36.68 unlike previous study where mean age was 26.38.[1]

In the present study, physical function domain of QOL of found mildly better in some and moderately good in half of population, role limitation due to physical health found poor in some and moderately good in half and very good in most of population. Workers had mild to moderate limitations in vigorous and moderate activities. Some had severe limitations in all of these activities like as previous study some workers suffered from MSDs in the last year, some suffered from back pain, some with neck and shoulder discomfort, few of subjects had hand or arm discomfort, very few had leg or foot discomfort, and some had discomfort in other parts of the body.[14]

In this study, role limitation due to physical health was found poor in some of population and moderately good in half of population and very good in most of population same like previous study most of workers showed no role limitations due to physical health, some showed mild to moderate affection of limitations, very few showed severe affection of role limitations due to physical health. General health of construction workers was found mildly better in some and moderately good in half and good in most of population same like previous

study most of workers health was excellent, some workers health was good, some workers health was fair while a very few workers health was poor.[2]

In the present study, domains of QOL of construction workers pain was found poor in some and mildly better in half and moderately good in most of population like as previous study all respondents detailed that the greater part of the respondents announced that they typically experienced lower back torment during the most recent a year.

CONCLUSION

This study concluded that there was overall moderate quality of life in construction workers. Furthermore, social function domain reported excellent QOL. Energy, Emotional well-being and General health domains reported good QOL and domains which had poor QOL was Physical function, Role limitation due to physical health and emotional problems.

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