

QUALITY OF WORK LIFE AND JOB SATISFACTION: A CASE OF VETERINARY DOCTORS IN PUNJAB

Deepak Kochar*

Associate Professor, Department of Commerce, GGN Khalsa College, Civil Lines, Ludhiana, Punjab, India. E-mail: kochhardipak@gmail.com

Abstract The present study attempts to establish the association between Quality of Work Life (QWL) and job satisfaction among the veterinary doctors of Punjab. Multiple linear regression analysis has been employed to examine how far the factors of QWL identified with the help of factor analysis affect the job satisfaction. Job satisfaction is a dependent variable and factors, 'Monetary Consideration', 'Social Relations at Work', 'Constitutionalism at Work', 'Pride in Job', 'Facilitation for Current Performance and Future Growth', 'Nature of Job', 'Security and Safety', 'Innovative and Challenging Job', 'Fair and Unbiased Attitude of Top Officials', 'Less Educated and Ignorant Clients', 'Space and Infrastructure', 'Insufficient Diagnostic Facilities and Staff', and 'Reporting' are independent variables. The results of the present study reveal strong association of 'Monetary Consideration', 'Facilitation for Current Performance and Future Growth', 'Security and Safety', 'Nature of Job', and 'Space and Infrastructure' with job satisfaction. The eight variables which were not found significant include; 'Social Relations at Work', 'Constitutionalism at Work', 'Pride in Job', 'Innovative and Challenging Job', 'Fair and Unbiased Attitude of Top Officials', 'Less Educated and Ignorant Clients', 'Insufficient Diagnostic Facilities and Staff', and 'Reporting'. The present study conducted on veterinarians working under department of animal husbandry, Punjab can make a niche in this area. Commitment on the part of government and department itself to work on the activities and initiatives which promote QWL and job satisfaction of the respondents can create a sound and harmonious working environment to get the desired results.

Keywords: QWL, Job Satisfaction, Veterinary, Punjab

INTRODUCTION

As the work culture has changed drastically in the recent years, the traditional concept of work to fulfill human's basic needs is also facing out. The basic needs continue to diversify and change according to the evolution of the work system and standards of living of a work force (Rethinam *et al.*, 2008). Lau & May (1998) define quality of work life as the workplace strategies, operations and environment that promote and maintain employee satisfaction with an aim to improving working conditions for employees and organisational effectiveness for employers. Quality of work life is a generic term including a range of techniques and processes that are designed to give employees greater discretion and control over their work. The principle behind all QWL initiatives is that greater participation and involvement in decision making by employees will lead to increase in satisfaction, motivation and commitment, which in turn might lead to improvements in performance (Heery

& Noon, 2001). Serey's (2006) work on quality of work life is quite conclusive and best meets the contemporary work environment. The definition has been related to a meaningful and satisfying work. It includes (i) an opportunity to exercise one's talent, capacities and to face challenges/situations that require independent initiative and self-direction; (ii) an activity thought to be worthwhile by the individuals involved; (iii) an activity in which one understands the role the individual can play in the achievement of some overall goals; and (iv) a sense of taking pride in what one is doing and in doing it well. This issue of meaningful and satisfying work has been merged with discussions of job satisfaction, and believed to be more favorable to quality of work life.

Job satisfaction and dissatisfaction may be regarded as an attitude based on the worker's feeling about what he should be receiving in, or getting out of a job compared with what he actually perceives himself to be receiving (Lawler, 1982). Wanous & Lawler (1972) felt that this expected/ received ratio can also be expressed as the degree to which the worker

perceives that his needs are being met in a job. The relationship of job satisfaction with quality of work life is another aspect of working life that is investigated by researchers (Herzberg, Mausner & Snyderman, 1959; Herzberg, 1968). From a business perspective, quality of work life (QWL) is important since there is evidence demonstrating that the nature of the work environment is related to satisfaction of employees and work-related behaviours (Greenhaus *et al.*, 1987).

From the discussion above well knit relationship can be anticipated between QWL and job satisfaction. The same fact can be witnessed in research e.g. Kaye & Sutton (1985) suggested a strong connection that exists between productivity and quality of working life for office principals with particular attention being paid to job satisfaction. Efraty and Sirgy (1990) conceptualised QWL in terms of need satisfaction stemming from an interaction of worker's needs (survival, ego, social, and self actualisation needs) about those organisational resources relevant for meeting them to find out the effect of need satisfaction on employee behavioural response, i.e. job satisfaction. Lau & May (1998) empirically established positive relation between elements of QWL (pay and benefits, opportunities, job security, pride in work and company, openness and fairness, camaraderie, and friendliness) and overall employee satisfaction of two groups of companies in US. May *et al.* (1999) further enhance the study of Lau & May (1998) and provide empirical evidence establishing the direct link between elements of QWL and employee satisfaction to the overall financial performance of the firm. Hossain & Islam (1999) investigated the overall quality of working life (QWL), job satisfaction, and performance of the government hospital nurses in Bangladesh and revealed a significant positive correlation between QWL and performance, and job satisfaction and performance. Lewis *et al.* (2001) attempted to determine whether intrinsic and extrinsic variables of job predict satisfaction with quality of work life of employees of seven health care organisations located in South Central region of Ontario, Canada. The study reported that pay, benefits, supervisor style, and decision making authority play major role in satisfaction with QWL. Sirgy *et al.* (2001) studied the predictive effect of QWL on job satisfaction on the basis of pooled sample of 226 faculty and staff from 2 different universities and 15 accountants from several accounting firms in the United States. It was found that job satisfaction is a positive function of QWL. Sturman (2002) used job satisfaction as one of the scales to measure the perceived quality of working life among 389 primary and 285 secondary school teachers in England. Saraji & Dargahi (2006) provided insights into the positive and negative attitudes of 908 Iran Hospitals' employees towards their quality of life. These attitudes were measured with the help of 14 factors including satisfying and interesting work as one of the factor. The results revealed that interesting

as well as satisfying work were the most important issues for a high QWL. Conklin & Desselle (2007) developed a multidimensional scale to measure work satisfaction as an integral component of quality of work life among 885 pharmacy faculty members and determined its reliability and validity using 6 domains of work satisfaction. Lee *et al.* (2007) validated a need based measure of quality of work life developed by Sirgy *et al.* (2001). They conceptualised the QWL construct in terms of employee satisfaction with two sets of major needs, lower and higher order needs. The conceptual model posited that QWL has a positive influence on job satisfaction. Islam & Siengthai (2009) conducted an exploratory study on the influence of worker's quality of work life on job satisfaction and organisational performance and found that QWL is positively and significantly related to employee's job satisfaction.

The literature reviewed highlights that QWL established significant relationship with job satisfaction. Danna & Griffin (1999) see QWL as a hierarchy of concepts that include non-work domains, such as life satisfaction (at the top of the hierarchy), job satisfaction (at the middle of the hierarchy) and more work-specific facets of job satisfaction, such as pay, co-workers, and supervisor (lower in the hierarchy). During the 1990s, scholars and practitioners regained an interest in the study of QWL and this concept has become of renewed concern and increased importance to the organisation and its human resources both in terms of employee job satisfaction and in terms of the ultimate performance of the organisation. QWL refers to employee satisfaction with a variety of needs through resources, activities and outcomes stemming from participation from the work place (Sirgy *et al.*, 2001). This assertion is consistent with Danna & Griffin's (1999) view of QWL. Many researchers (Efraty *et al.*, 1991; Lau & May, 1998; Lewis *et al.*, 2001; Gifford, 2002; Lee *et al.*, 2007; Saad *et al.*, 2008; Islam & Siengthai, 2009; Koonmee *et al.*, 2009) have supported QWL as an antecedent of job satisfaction. But there are researchers who have supported the other side of the causal nature of this relationship, i.e. believing that job satisfaction causes QWL (Kaye & Sutton, 1985; Sturman, 2002; Mott *et al.*, 2004, Sale & Smoke, 2007; Anbarasan & Mehta, 2009; Azril *et al.*, 2010). Hence, the construct of job satisfaction establishes two way relationships with QWL, but the present study views QWL as an antecedent of job satisfaction.

Extensive work has been done to trace out the notion of quality of work life, its measures and factors influencing it throughout the World. Many professions have been the subject matter of research on quality of work life but there has been limited research as far as the systematic evaluation of quality of work life with job satisfaction in Indian health care sector is concerned.

RESEARCH METHODOLOGY

This paper attempts to explore the relationship between QWL and job satisfaction among the veterinary doctors in Punjab. The universe of the study consists of all the veterinary doctors employed by Punjab government on permanent basis and this number was 649 in October, 2010. Initially the questionnaire designed for data collection was e-mailed to all the veterinary officers, but due to the lukewarm response of the officers they were approached personally and through their senior officers and finally a total of 322 questionnaires were collected. QWL and job satisfaction have been measured by using models of Walton (1975) and Warr *et al.* (1979) respectively.

QWL Scale

QWL is best described as the favourable working environment that supports and promotes satisfaction by providing employees with rewards, job security and career growth opportunities (Lau *et al.*, 2001). Accordingly, and for the purpose of this study QWL is defined as the combination of physical, psychological, and social factors that influence employee's satisfaction. On the basis of Walton's (1975) eight major conceptual areas of QWL along with an additional area (nature of work) found relevant for the study; a scale was developed through an iterative process comprising 64 items under each area for the purpose of exploring the determinants of QWL. The conceptual categories considered were nature of work, compensation, safe and healthy working conditions, opportunity to use the capacity to work, opportunity for growth, social integration at work place, constitutionalism in work organisation, and the social relevance of working life. The respondents were required to indicate their level of agreement about the given statements on a 5 point Likert scale ranging from, 'strongly agree' to 'strongly disagree'. The weights; 5, 4, 3, 2 and 1 were assigned for 'strongly agree', 'agree', 'undecided', 'disagree' and 'strongly disagree' for the purpose of analysis. A pilot survey was conducted among 39 doctors revealing alpha value of the scale as 0.833. Factor analysis of 64 variables revealed 17 factors explaining 90.59 percent variance and identified 9 variables with multiple and conflicting loadings and were therefore excluded from the scale. Following the suggestions of respondents, two statements were added leading to total of 57 statements in the final scale. The alpha measure of internal consistency of the scale has been found to be 0.851.

Job Satisfaction Scale

The fifteen item job satisfaction measures developed by Warr *et al.* (1979) were used to assess the level of job

satisfaction among veterinary doctors. The responses were sought on a five point likert scale; Very Dissatisfied, Moderately Dissatisfied, Undecided, Moderately Satisfied, and Very Satisfied. The response 'Very Dissatisfied' has been assigned a weight of 1, 'Moderately Dissatisfied' a weight of 2, 'Undecided' a weight of 3, 'Moderately Satisfied' with a weight of 4 and 'Very Satisfied' a weight of 5. Cronbach alpha, a coefficient of internal consistency of the original scale, varies from 0.83 to 0.90 for different samples whereas the alpha value for the present study comes out to be 0.893.

RESULTS AND DISCUSSION

Principle component analysis with Varimax Rotation was employed on QWL scale to examine the structure of the job of veterinary doctors. The factor analysis of 57 items identified 12 items with weak and multiple loadings and thus excluding from the analysis. Finally, 45 items have been analysed and used for further analysis. Cronbach Alpha, a measure of reliability of internal consistency of the scale has been found to be 0.828 for 45 items. Factor analysis of 45 variables yielded 13 factors which explained 64.36 percent of variance. The factor loadings which are greater than 0.45 (ignoring sign), are interpreted. All the extracted factors with their respective percentage of eigen value, variance explained, number of variables and range of loadings under each are reported in Table 1.

QWL and Job satisfaction

In order to identify the factors of quality of work life associated with job satisfaction of veterinary doctors, correlation analysis has been performed. The correlation analysis is used to describe the strength and direction of the linear relationship between two variables. Factor scores have been calculated by multiplying the rotated component matrix with the original raw scores for 13 factors identified with the help of factor analysis.

An examination of the Correlation Matrix in Table 2 unveils several statistically significant correlations. The job characteristics like 'Monetary Consideration' (0.441), 'Social Relations at Work' (0.523), 'Constitutionalism at Work' (0.479), 'Pride in Job' (0.393), 'Facilitation for Current Performance and Future Growth' (0.536), 'Security and Safety' (0.230), 'Innovative and Challenging Job' (0.220), 'Fair and Unbiased Attitude of Top Officials' (0.465), 'Less Educated and Ignorant Clients' (0.115), 'Space and Infrastructure' (0.230), and 'Reporting' (0.143) have been found positively and significantly related with job satisfaction. It is inferred that the presence of above mentioned job characteristics improves the job satisfaction of the respondents, whereas job satisfaction has been found negatively associated with 'Nature of Job' (-0.084) and

Table 1: Extracted Factors

Sr no	Factor	Eigen values	Variance explained	No. of variables	Range of loading
1	Monetary Consideration	7.58	16.84	6	0.796-0.606
2	Social Relations at Work	3.95	8.77	6	0.753-0.638
3	Constitutionalism	2.71	6.03	4	0.715-0.477
4	Pride in Job	2.22	4.93	5	0.698-0.647
5	Facilitation for Current Performance and Future Growth	1.90	4.23	3	0.772-0.619
6	Nature of Job	1.71	3.8	3	0.822-0.673
7	Security and Safety	1.57	3.48	3	0.809-0.508
8	Innovative and Challenging Job	1.40	3.11	3	0.785-0.680
9	Fair and Unbiased Attitude of Top Officials	1.33	2.95	3	0.778-0.533
10	Less educated and Ignorant Clients	1.28	2.84	4	0.759-0.489
11	Space and Infrastructure	1.21	2.68	2	0.846-0.746
12	Insufficient Diagnostic Facilities and Staff	1.12	2.48	2	0.772-0.661
13	Reporting	1.01	2.24	1	0.789

Insufficient Diagnostic Facilities and Staff' (- 0.018) but not found significant.

The results of this study support the proposition that the degree of QWL is related to the degree to which the respondents believe that the requirements of their job have been met, like Powers (2004) identified the essential components of QWL as basic extrinsic job factors of wages, hours and working conditions, and the intrinsic job notions of the nature of the work itself. QWL is said to differ from job satisfaction (Quinn & Shephard, 1974; Davis & Cherns, 1975; Hackman & Suttle, 1977; Kabanoff, 1980; Near *et al.*, 1980; Staines, 1980; Champoux, 1981; Kahn, 1981; Lawler, 1982) but QWL is thought to lead to job satisfaction. As Sirgy *et al.*, (2001) opined that QWL refers to the impact of the workplace on satisfaction in work life (job satisfaction), satisfaction in non-work life domains, and satisfaction with overall life. Rethinam *et al.* (2008) viewed quality of work life as a wide ranging concept, which includes adequate and fair remuneration, safe and healthy working conditions that enables an individual to develop and use all his or her capacities. Most of the definitions aim at achieving the effective work environment that meets with the organisational and personal needs and values that promote health, well-being, job security, job satisfaction, competency development, and balance between work and non-work life.

Multiple linear regression analysis has been employed

to examine how far the factors identified with the help of factor analysis affect the job satisfaction. Job satisfaction is a dependent variable and factors, 'Monetary Consideration', 'Social Relations at Work', 'Constitutionalism at Work', 'Pride in Job', 'Facilitation for Current Performance and Future Growth', 'Nature of Job', 'Security and Safety', 'Innovative and Challenging Job', 'Fair and Unbiased Attitude of Top Officials', 'Less Educated and Ignorant Clients', 'Space and Infrastructure', 'Insufficient Diagnostic Facilities and Staff', and 'Reporting' are independent factors. With job satisfaction as a dependent variable, all job characteristics were allowed to enter by using 'enter method' and results of the regression model are reported in Table 3. It is revealed from the table that the variables which have emerged as significant explain 37.9 percent of variance in job satisfaction of the respondents. The collinearity statistics reveal that none of the tolerance value is smaller than 0.10 and VIF statistics is less than ten, which indicate that there is no serious multi collinearity problem among the predictor variables of the regression model. Four variables which are significant and positively affect the job satisfaction are 'Monetary Consideration', 'Facilitation for Current Performance and Future Growth', 'Nature of Job', and 'Space and Infrastructure'. The largest β coefficient is 0.981 for 'Nature of Job', which indicates that this job characteristic is the most significant factor influencing job satisfaction of veterinary doctors. It is followed by 'Space and Infrastructure' ($\beta = 0.900$), 'Facilitation for Current

Table 2: Correlation Between Quality of work Life and Job Satisfaction

G_Sum	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	F13
1													
.441**	1												
.523**	.575**	1											
.479**	.628**	.800**	1										
.393**	.232**	.604**	.495**	1									
.536**	.724**	.738**	.696**	.645**	1								
-.084	-.434**	-.298**	-.349**	-.235**	-.374**	1							
.230**	.578**	.543**	.709**	.152**	.453**	-.399**	1						
.220**	.069	.366**	.198**	.605**	.391**	.031	-.012	1					
.465**	.421**	.808**	.750**	.545**	.614**	-.267**	.506**	.387**	1				
.115*	.370**	.190**	.234**	-.036	.206**	-.012	.199**	-.151**	.110*				
.230**	.424**	.276**	.383**	-.023	.236**	-.328**	.558**	-0.074	.307**	.194**	1		
-.017	.247**	.006	.130*	-.246**	-.019	.111*	.302**	-.305**	-.028	.391**	.171**	1	
.143*	.077	.228**	.063	.151**	.167**	-.009	.012	.168**	.112*	-.092	-.076	-.237**	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Note, G Sum represents job satisfaction and F represents various factors

Table 3: Regression Coefficients and Other Relevant Statistics

Factors	Unstandardised Coefficients B	T-Values	Significance values.	Collinearity Statistics	
				Tolerance	VIF
FacScr1	.519	2.914	.004	.265	3.780
FacScr2	.376	1.351	.178	.199	5.030
FacScr3	.454	1.555	.121	.201	4.971
FacScr4	.440	1.518	.130	.317	3.158
FacScr5	.696	2.066	.040	.210	4.751
FacScr6	.981	3.859	.000	.628	1.592
FacScr7	-.899	-3.345	.001	.332	3.015
FacScr8	-.623	-1.610	.108	.521	1.921
FacScr9	.597	1.502	.134	.279	3.590
FacScr10	-.376	-1.297	.196	.729	1.373
FacScr11	.900	3.108	.002	.618	1.618
FacScr12	-.196	-.611	.542	.611	1.637
FacScr13	.309	.817	.415	.839	1.192

$R^2 = 0.404$, adjusted $R^2 = 0.379$, F value = 16.066, Significance Level = 0.000

Performance and Future Growth' ($\beta = 0.696$). The β value 0.519 for factor 'Monetary Consideration', which is the smallest contributor. The variable which is found to be significant but negatively associated with job satisfaction is 'Security and Safety' ($\beta = -0.899$).

The findings are generally consistent with those from previous studies on QWL and employee satisfaction that were conducted in the industry and manufacturing sectors. Mirvis & Lawler (1984) highlighted that quality of working life was associated with satisfaction with wages, hours and working conditions, describing the, basic elements of a good quality of work life, as; safe work environment, equitable wages, equal employment opportunities, and opportunities for advancement. Since long time it is established that job satisfaction exhibits strong positive association in expected directions with measures of a large work attributes, which include diverse aspects of work contents (variety, task significance and skill use), pay and other benefits, job security, promotion opportunities, recognition, work conditions, relations with co-workers and supervisors, effective communication structures in the firms and participation in managerial decision making (Locke, 1976; Hackman & Oldham, 1980; Wooden & Warren, 2003).

The results of the present study reveals strong association of 'Monetary Consideration', 'Facilitation for Current Performance and Future Growth', 'Nature of Job', and 'Space and Infrastructure' with job satisfaction. The aim

of every job is earning livelihood. Fixed and stable earning satisfies the physiological and other family needs of the individual. So, the study produced monetary considerations as one of the factors satisfying the respondents. Facilitation for current performance and future growth has emerged as the other factor affecting job satisfaction which caters to the high order needs of self-actualisation. No doubt, that the nature of the job of a veterinarian is taxing and hard but daily six hours working makes them feel relaxed for half of the day and ultimately give them satisfaction. The nature of the profession is such that efficiency of veterinarians depends upon the availability of space and infrastructure; this may be the reason that this factor has been perceived as significant indicator of job satisfaction. The factor security and safety is the only one which is negatively and significantly related to job satisfaction implying that respondents perceive inadequate arrangements for security and safety of their lives by the authorities.

The eight variables which were not found significant include 'Social Relations at Work', 'Constitutionalism at Work', 'Pride in Job', 'Innovative and Challenging Job', 'Fair and Unbiased Attitude of Top Officials', 'Less Educated and Ignorant Clients', 'Insufficient Diagnostic Facilities and Staff', and 'Reporting'. 'Social relations at work' is not found to be significant. It might be due to the fact that the respondents have to work in association of two to three juniors in field and need not interact frequently with their superiors. Similarly, constitutionalism at work, with respect to work

assignment, transfer, promotion and grievance handling etc. might be perceived as same for all and part of the job, hence does not affect job satisfaction of veterinarians. The factor pride in job is also not revealed to be significant; hence it may be perceived that the respondents are not enthusiastic about their job. Innovative and challenging job has been found to have no effect on job satisfaction of the veterinarians. The presence of bureaucracy and red tapism in government departments as well as legal complication discourages people to take initiatives and be innovative. Moreover, lack of autonomy and emphasis on strict compliance with large work rules might be compelling the doctors to work according to rule rather than be innovative. The respondents are found indifferent for fair and unbiased attitude of top officials simply because of need to comply with uniform rules and norms of governance of the department, where they hardly perceive the role of the top officials. The level of education and awareness of life stock owners undoubtedly contributes towards the effectiveness of the doctors but it seems that their way of dealing and cooperative behaviour leaves this variable insignificant for the doctors. Insufficient availability of diagnostic facilities and staff seems to be not affecting job satisfaction of respondents simply because these facilities are rarely put in use in hospitals in villages. Similarly respondents perceive reporting as part of their job at monthly meetings hence does not affect their level of job satisfaction. Hence it can be concluded that out of thirteen factors of QWL, only four factors are significantly and positively related to job satisfaction and hardly one factor is adversely affecting the perceived job satisfaction of the respondents.

QWL initiatives benefit both employees and employers. In the presence of QWL initiatives employees feel safe, relatively well satisfied and able to grow and thus can develop as better human beings. They believe that QWL enhances their dignity through job satisfaction and humanizing work by assigning meaningful jobs, ensuring job security, making provisions for adequate pay and benefits, providing safe and healthy working conditions, giving opportunities to develop human capacity, ensuring growth and security, social integration, constitutionalism, getting freedom to self-expression and thus, help to increase individual productivity that supports to achieve organisational effectiveness (Walton, 1974; Suttle, 1977; Guest, 1979; Carlson, 1980; Nachmias, 1988; Hian & Einstein, 1990;).

The present study conducted on veterinarians working under department of animal husbandry, Punjab can also make a niche in this area. Commitment on the part of government and department itself to work on the activities and initiatives which promote QWL and job satisfaction of the respondents can create a sound and harmonious working environment to get the desired results.

LIMITATIONS OF THE STUDY

Being survey based, conducted with the help of a questionnaire, this study is inherited with the limitations of the chances of what is recorded and what is the reality due to well known problem of barriers in communications. Therefore, there may be some problem with the sample truly being representative of the population. Further the study suffers from the limitation of generalisation for other states, institutions and different category of employees appointed under varied terms and conditions. The results of the study need to be interpreted cautiously as the study does not make gender differentiation and one fourth of the data has been collected from single district due to uneven distribution of data. These limitations restrict the applicability of the study and such issues need to be controlled in future research.

DIRECTIONS FOR FUTURE RESEARCH

Every study seems to be unique with respect to its subject, scope and context which limits its applicability, but always has more room to explore. Some of the suggested areas for further research in the given study are given below,

- Future research can be aimed at scaling other employee attitudes and behaviour like job involvement, professional commitment, intention to quit and absenteeism and relating these to QWL.
- Future research may focus on capturing the impact of QWL on performance of the employees over a period of time.
- State-wise comparison can be incorporated in the scope of future research.
- Comparative analysis can also be done to scale QWL of different categories of veterinarians working in field, laboratory, farm and university, etc.

REFERENCES

- Anbarasan, V., & Mehta, N. (2009). An exploratory study on perceived quality of working life among sales professionals employed in pharmaceutical, banking, finance and insurance companies in Mumbai. *Abhigyan*, 27(1), 70-81.
- Carlson, H. C. (1980). A model of quality of work life as a development process, In Bruke, W. W. and Goodstien, L. D. (eds.). *Trends and issues in organizational development, current theory and practices*, San Diego, University Associates.
- Champoux, J. E. (1981). A sociology perspective on work involvement. *International Review of Applied Psychology*, 30(1), 65-86.
- Conklin, M. H., & Desselle, S. P. (2007). Development of a multidimensional scale to measure work satisfaction

- among pharmacy faculty members. *American Journal of Pharmaceutical Education*, 71(4), 61-70.
- Danna, K., & Griffin, R. W. (1999). Health and well-being in the workplace, a review and synthesis of the literature. *Journal of Management*, 25(3), 357-384.
- Davis, L., & Cherns, A. (Eds) (1975). *The quality of working life*. New York, Free Press.
- Efraty, D., & Sirgy, M. Joseph (1990). The effects of quality of working life (qwl) on employee behavioral responses. *H*, 22(1), 31-47.
- Efraty, D., Sirgy, M., & Claiborne, C. B. (1991). The effects of personal alienation on organizational identification, quality-of-work life model. *Journal of Business and Psychology*, 6(1), 57-78.
- Gifford, B. L. (2002). The relationship between hospital unit culture and nurses, quality of work life. *Journal of Health Care Management*, 47(1), 13-24.
- Greenhaus, J., Bedian, A., & Mossholder, K. (1987). Work experiences, job performances, and feelings of personal and family well being. *Journal of Vocational Behavior*, 31(2), 200-215.
- Guest, R. R. (1979). Quality of work life- learning from Terrytown. *Harvard Business Review*. July-August, 76-87.
- Hackman, J. R., & Oldham, R. G. (1980). *Work redesign*. M.A, Addison-Wesley.
- Hackman, J. R., & Suttle, J. L. (1977). *Improving life at work*, Scott Foresman, Glenview, and I.L.
- Hayrol Azril, M. S., Ahmad Faiz, A. N., Khairuddin, I., Jegak, U., & Jeffrey, D. S. (2010). Agriculture Project as an Economic Development Tool to Boost Socio-economic Level of the Poor Community: The case of Agropolitan project in Malaysia. *African Journal of Business Management*, 4(11), 2354-2361.
- Heery, E., & Noon, M. (2001). *A dictionary of human resource management*. Oxford, University Press.
- Herzberg, F. (1968). One more time, how do you motivate employees? *Harvard Business Review*, 46(2), 53-62.
- Herzberg, F., Mausner, B., & Snyderman, B. (1959). *The motivation to work*. New York, Willey.
- Hian, C. C., & Einstein, W. O. (1990). Quality of work life, what can unions do. *Advanced Management Journal*, 55(2), 17-22.
- Hossain, M. M., & Islam, M. T. (1999). Quality of working life and job satisfaction of government hospital nurses in Bangladesh. *Indian Journal of Industrial Research*, 34(3), 292-301.
- Islam, M. Z., & Siengthai, S. (2009). Quality of work life and organizational performance, empirical evidence from Dhaka export processing zone, Paper presented to ILO conference on regulation for decent work, Geneva.
- Kabanoff, B. (1980). Work and non work, a review of models, methods and findings. *Psychological Bulletin*, 88(1), 60-77.
- Kahn, R. (1981). *Work and health*, New York, Wiley.
- Kaye, A. R., & Sutton, M. J. D. (1985). *Productivity and quality of working life for office principals and the implications for office automation, office, technology and people*, 2(4), 267-286.
- Koonmee, K., Anusorn, S., Busaya, V., & Dong-Jin, L. (2009). Ethics institutionalization, quality of work life, and employee job-related outcomes, a survey of human resource managers in Thailand. *Journal of Business Research*, 63(1), 20-26.
- Lau, R. S. M., & May, B. E. (1998). A win-win paradigm for qwl and business performance. *Human Resources Development Quarterly*, 9(3), 211-226.
- Lau, T., Wong, Y. H., Chan, K. F., & Law, M. (2001). Information technology and the work environment-does it change the way people interact at work. *Human Systems Management*, 20(3), 267-280.
- Lawler, E. E. (1982). Strategies for improving the quality of work life. *American Psychologists*, 37(5), 486-493.
- Lee, D. J., Singhapakdi, A., & Sirgy, M. J. (2007). Further validation of a need-based quality-of-work-life (QWL) measure, evidence from marketing practitioners. *Applied Research Quality Life*, 2(4), 273-287.
- Lewis, D., Brazil, K., Krueger, P., Lohfeld, L., & Tjam, E. (2001). Extrinsic and intrinsic determinants of quality of work life. *Leadership in Health Services*, 14(2), 9-15.
- Locke, 1976 cited in Brief, A. P., & Weiss, H. M. (2001). Organizational behavior, affect in the workplace. *Annual Review of Psychology*, 53, 279-307.
- May, B., Lau, R., & Johnson, S. K. (1999). A longitudinal study of quality of work life and business performance. *Business Review*, 58(2), 3-7.
- Mirvis, P., & Lawler, E. E. (1984). Accounting for the quality of work life. *Journal of Occupational Behavior*, 5(3), 197-212.
- Mott, D. A., Doucette, R., Gaither, C. A., Pedersen, C. A., & Schommer, J. C. (2004). Pharmacist's attitudes towards work life, results from a national survey of pharmacists. *Journal of the American Pharmacists Association*, 44(3), 326-36.
- Nachmias, D. (1988). The quality of work life in the federal bureaucracy, conceptualization and measurement. *American Review of Public Administration*, 18(2), 167-73.
- Near, J. P., Rice, R. W., & Hunt, R. G. (1980). The relationship between work and non work domains, a review of empirical research. *Academy of Management Review*, 5(3), 415-429.

- Powers, V. (2004). Keeping work and life in balance, *T+D Journal*, 58(7), 32-35.
- Quinn, R. P., & Shephard, L. G. (1974). *The 1972-73 quality of employment survey*, Institute for Social Research. University of Michigan, Ann Arbor.
- Rethinam, G., & Ismail, M. (2008). Constraints of quality of work life, a perspective in information and technology professional. *European Journal of Social Sciences*, 7(1), 58-69.
- Saad, S. H., Samah, A., Jauhariah, A., & Juhdi, N. (2008). Employees perception on quality work life and job satisfaction in a private higher learning institution. *International Review of Business Research Papers*, 4(3), 23-34.
- Sale, J. E. M., & Smoke, M. (2007). Measuring quality of work-life, a participatory approach in a canadian cancer center. *Journal of Cancer Education*, 22(1), 62-66.
- Saraji, G. N., & Dargahi, H. (2006). Study of quality of work life. *Iranian Journal of Public Health*, 35(4), 8-14.
- Serey, T.T. (2006). Choosing a robust quality of work life. *Business Forum*, 27(2), 7-10.
- Shaffril, H. A. M., Jegak, U., Asiah, M., Azman Noor, A., Bahaman, A. S., Jamilah, O., & Thomas, K. (2010). Can quality of work life affect work performance among government agriculture extension officers? A case from Malaysia. *Journal of Social Sciences*, 6(1), 64-73.
- Sirgy, M. J., Efraty, D., Siegel, P., & Lee, D. J. (2001). A new measure of quality of work life (qwl) based on need satisfaction and spillover theories. *Social Indicators Research*, 55(3), 241-302.
- Stanes, G. (1980). Spillover versus compensation, a review of the literature on the relationship between work and non work. *Human Relations*, 33(2), 111-129.
- Sturman (2002). Contended and Committed? A survey of quality of working life amongst teachers. *National Foundation for Educational Research (NFER)*.
- Suttle, J. L. (1977). Improving life at work, problems and prospects, In Hackman, J. R. and Suttle, J. L. (eds.). *Improving life at work, behavioral science approach to organizational change*. California, Goodyear Publishing Company, 1-29.
- Walton, R. E. (1974). Improving the quality of work life. *Harvard Business Review*, 12(a).
- Walton, R. E. (1975). Criteria for quality of working life, In L. E. Davis and A. B. Cherns (Ed.) *Quality of working life*, 91-104. New York, Free Press.
- Wanous, J. P., & Lawler, E. E. (1972). Measurement and meaning of job satisfaction. *Journal of Applied Psychology*, 56(2), 95-105.
- Warr, P. B., Cook, J., & Wall, T. D. (1979). Scales for the measurement of some work attitudes and aspects of psychological well being. *Journal of Occupation Psychology*, 52, 129-148.
- Wooden, M., & Warren, D. (2003). The characteristic of casual and fixed-term employment, evidence from the hilda survey, Melbourne Institute Working Paper. Retrieved from <http://www.melbourneinstitute.com>.