Work Life and Work Satisfaction: an Exploratory study on Doctors' QWL from past and recent Works

Partha Lodh (Corresponding Author)[1]

Dr Saileswar Ghosh[2]

Abstract

Health care system is growing complex day after day. It is mostly due to change in lifestyle, increased demand in terms of patient's care, enhanced technology and its effect on health care delivery process. Sophisticated instruments need specialized knowledge that again leads to need of better and up to date medical education system, which on the other hand, needs better organizational structure. All these have its effect on entire medical profession as newer challenges are to be handled with enhanced skill and potentiality development and increased dedication to profession as performance management becoming key factor to avoid professional hazard in different forms. Therefore, entire health policy needs to be revised so as to offer health care workers specially doctors who are key person in health care delivery system, enough provision of quality work life, better job satisfaction to enhance their performance at work place. In our study, we attempted to to identify variables for quality work life of doctors and its relation to their work performance reviewing various literature on this aspect.

Keywords— *quality of life, job satisfaction, performance, doctor*

INTRODUCTION

Globally this is accepted that, Doctors work under extreme pressure everywhere be it public or private sector. However not much work done to isolate the factors that affect their working condition in their workplace and only a handful of research reviews are so far available. In our article, it has been tried to probe deeply those factors reviewing scientific journals on health care and also overall QWL conceptual studies.

Number of papers on hospital working status were found in the search, mostly conducted in recent past giving focus on health care workers/doctors, policymakers as well as researchers.

Several studies have attempted to discover the kind of factors that determine QWL., and their efforts have resulted in various viewpoints (Kahn, 1981; Kalra & Ghosh, 1984).

During the 1960s and 1970s, QWL as a concept gained attention in the first world countries. With the advent of computer technology and de skilling, industrial economy got benefitted, at the price of working classes. Domestic labors were under threat due to outsourcing of job and faced with excessive workloads and high levels of stress as they had to become target oriented without any autonomy or job security.

The growth of high-tech jobs and scope of employment in IT sectors has also piqued the interest of researchers from other disciplines to investigate strategies to improve work-life balance. The goal of this exercise was to uncover ways to motivate employees to achieve high performance, improve job happiness, and reduce the risk of employee attrition (Hannif & et.al, 2008, 272).

III. QUALITY OF WORK LIFE – CONCEPTUAL DIMENTIONS

In 1972, the concept of "quality of work life" was first articulated and Irving Bluestone (from General Motors) is the person to coin the term 'QWL' for first time. His emphasis was on active participation of workers in decision making that had multifaceted effect on company performance.

Seashore (1975) in his work tried to relate QWL with satisfaction level of employee. He defined it as role effectiveness that affects the employee in terms of income, job safety and job satisfaction. On the other hand, affects the employer which is related to productivity, cost, quality control etc

Golembiewski et al. (1976) characterized QWL with alpha, beta and gama changes which correlates with time frame, shift in reference point and individuals' priorities

QWL, according to Robbins (1989), is "a process by which an organization reacts to employee demands by building mechanisms that allow people to actively participate in the decisions that create their lives at work."

Hsu & Kernohan, (2006) described QWL as a multidimensional concept which is closely related to Industrial Labor Relation.

Elizur (1990), laid stress on multidimensional approach of QWL, INCLUDING PHYSIAL WORK ENVIRONMENT, JOB OPPORTUNITIES, SUPERVISION, EQUITABLE COMPENSATION, DECISION MAKING ETC

QWL is also defined by other researchers as a measure to relate employees wellbeing, quality of job and job description, working environment and relationship, autonomy and control (Korunka et al, 2008)Similar work was also done by ; Schouteten, 2004; Van Laar et al (2007), too found QWL as a multi-dimensional construct.

To describe and assess quality of life, several academics have devised various categories and criteria. Walton (1980) classified the main components of QWL into four groups. Work concept, social and organizational harmony, work content etc. according to him, are all influencing variables on QWL.

Saad et al. (2008) investigated multiple QWL variables (work-family conflict, organizational change, , access to resources, self- determination etc.)with 251 questionnaires based on five-point Likert scale to determine relationships of QWL with job satisfaction

Balasundaram Nimalathasan (2010) identified four factors namely family job benefit, payment security and creativity that plays key role in QWL practice. Mukherjee, 2010 worked on satisfaction level of employees in relation to QWL

Sarina Muhamad Noor and Mohamad Adli Abdullah (2012) focused on positive relation between QWL and on employee performance and capability

Statt, D. (2004), described role of factors that affects level of employee's job satisfaction namely working environment including work schedule and payment structure, attitude of co-workers, rewards for quality service etc.

Winter et al., (2000) looked at QWL for attitudinal responses among employees, including role stress, job qualities, and supervisory, structural, and social variables, to impact academicians' experiences, attitudes, and behaviors directly and indirectly.
To assess the QWL in banks, Mosharraf (2000) looked at job stability, job/role clarity, supervisor comprehension, work that is not stressful, access

to relevant information, and social and welfare amenities.

Nadler and Lawler related QWL activities include several dimensions like participatory problem solving, adequate and systematic rewardsystems, improving workplace environment etc,

Lack of job stress, burnout, turnover intentions, and job happiness and stability and career advancement are some of the markers mentioned by Bhanugopan & Fish (2008).

Three characteristics were identified by Connell & Hannif (2009): i) Job description; (ii) Total Working hours/ work-life balance; and (iii) Supervisory policies. They believe that crucial themes include, among other things, job security, reward systems, compensation, and opportunities for advancement.

Adhikari & Gautam (2010) define proper compensation and benefits, job stability, and a safe and healthy working environment as measures of work life quality.

According to Schermerhorn and John (1989), the following qualities must exist in the organization: fair and enough remuneration, healthy and safe working circumstances, opportunity to learn, professional progress, professional integrity in the organization, support for individual rights, and pride in the job.

Hsu and Kernohan (2006) in their descriptive researches amongst Nurses discovered 56 QWL factors that fits in six dimensions namely demography, socioeconomic constructs,

Hsu and Kernohan (2006) used a convenience sample to conduct descriptive research. They chose 16 focus groups, each with three to five registered nurses with at least two years of experience from one medical Centre and five rural hospitals. They found 56 QWL categories that fit into six dimensions: socioeconomic relevance, demographics, organizational self-actualization etc

Sirgy and colleagues (2001) divided QWL into two categories depending on need-based factors. In their classification (lower-order and higher-order demands), the lower-order QWL is made up of economic needs, whereas the higher-order QWL is made up of social needs. They put forward their recommendations accordingly tsking seven areas of demands for measurement.

By analysing relevant paperwork and conducting focus groups or team interviews, Donald et al. (2005) evaluated QWL indicators in six Canadian Public Health Care Organizations (HCOs). The group interviews were recorded and evaluated using qualitative data analysis techniques. Employee well-being and working conditions were discovered to be major indicators of QWL.

Key variables deducted from literature review then can be deducted as,

job security,

improved reward systems,

higher compensation,

potential for advancement,

And participative groups are among the important notions recorded and debated in the extant literature

QWL can be defined in different ways. according to some it is described as favorable and facilitative workplace's conditions that enhances employee satisfaction, by giving rewards, job stability, and opportunity for career advancement. However, few other scholars have diverse opinion and they argue that Quality of Work Life (QWL) encompasses more than job satisfaction (Sirgy et al, 2001) and extends beyond employee well-being and job loyalty (Beaudoin & Edgar, 2003).

Employee satisfaction (also known as job satisfaction) is defined by Locke (1976) as "a pleasurable or good emotional state resulting from the appraisal of one's job or job experiences." Employees' needs and desires are met when they believe that the organization provides them with benefits like as remuneration, promotion, recognition, development, and meaningful work

The major benefits of a successful QWL program, it appears, are improved working conditions for employees and increased organizational performance for employers as stated by Adhikari Gautam (2010).

Rossmiller looked into the lives of secondary school teachers and principals (1992) and found favorableinfluence respectful job environment, participative and collaborative atmosphere on work performance.

Research by Efraty and Sirgy (1990) was based on a sample of 219 aged service providers in a big midwestern metropolis. The notion of quality of work life (QWL) was developed from an interaction between workers' needs (survival, ego, self-actualization etc) and the organizational resources available to support those needs. Need satisfaction (or QWL) is thought to be positively associated with jobsatisfaction, involvement, and performance, and adversely associated with personal alienation.

Emadzadeh et al (2012), investigated QWL of primary school teachers in Isfahan from a population of 862 teachers. And discovered that self-motivation to play a powerful role in intuitional performance despite lack of other quality criterialike remuneration etc.

Using Walton's eight QWL components, Ashoob (2006) investigated the relationship between quality of work life and organizational commitment in The High Schools of Gonbad-e-Kavus City and concluded that that there is a positive and significant link between work quality and organizational commitment.

Turner in his studies in 2005, 2007 among students and athletes in US, formulated that gender and age have prominent role in commitment and satisfaction level. Women and higher aged participants were found to be committed more than others.

Davoodi (1998) in his study amongst operational staffs of steel complex found positive effect of informal involvement of them in decision making with increased job satisfaction and decreased occupational stress resulting in better organizational performance.

The service profit chain notion has been supported by a substantial amount of earlier research. Lau (2000) studied two essential parts of the service profit chain model, namely QWL and performance. According to his findings, service organizations those initiated QWL met with higher growth and better performance in long run.

Najafi (2006) investigated the link between the quality of work life and organizational profits and concluded that quality of work life accounts for around 20% of profit, while other aspects account for the remaining 80%. Fallah (2006) used Walton's component in his work to discover a link between job satisfaction and performance in the Kosar Economical Organization

Nayeri, et al. (2011) conducted descriptive research of 360 clinical nurses working in Tehran University of Medical Sciences hospitals to see if there was a link between QWL and productivity. The findings revealed that 61.4 percent of the individuals have a moderate QWL. Only 3.6 percent of the nurses were found to be complied with their jobs

QUALITY OF WORK LIFE: HEALTH CARE SECTOR

Health is probably the most sensitive area of study as workers involved in health care job has to give preference more to value of life of a patient rather than benefit of the concern at times. As a result, each and every worker involved in different category of health job remain under constant physical and mental pressure and bear the possibility of early burn out.

Highly skilled and extremely diversified workforce is the key to run a healthcare organization successfully.

On the other hand, employees of such an organization have to be devoted to their job and spend much more time in comparison to other field of work. As a sequel they have to bear severe physical and mental stress. Therefore, it is of high importance to take care of working environment of the organization to its optimum level so as to attract and retain skilled manpower.

Authorities therefore must be alert to provide proper supervision and working condition to its workforce, allowing equitable reward system, more job security and independence in substantiative decision making,etc.

Due to complex texture of health care service employees, doctors in particular, are constantly under severe stress and suffer from number of physical and mental complications. Fatigue, early burn out, cardiovascular and neurological disorder, hyperglycemia is to name a few of them. Hence it is highly needed to pay attention in reviewing research articles on health care sector.

Amongst other occupational obligations, physicians are mostly affected by their uncertain duty schedules with no specific time limit or break period. Different studies cautioned against the adverse effects of such hectic and unscientific schedules and described the causalities as a result of it namely depressive psychosis, sleep deprivation, drug addiction, proneness to injuries etc.

Seashore (1975), Khaleque & Rahman (1987), in their study upfolded the importance of job satisfaction. However, in few studies QWL has been marginally differentiated from job satisfaction. Quinnand , Shepherd in 1974, Davis and Cherns in 1975 forwarded their view in this regard.

Attridge and Callhan (1990) in their study laid stress on work environment and proposed six dimensions namely, organization characteristics, resources, nature of work, benefits related to work, relationship at workplace, career development and recognition

O'Brien- Pallas et al (1994) put forward a frame work to measure nurses' QWL. Brooks (2001) developed it further based on work life/homelife, work composition, work environment, work world etc. These criteria were considered taking many a factor in mind like balance between family and work life, social and cultural factors etc.

Suzuki et al., (2004) in their study on medical workers reasoned due to consistent change and upgradation of medical technology, workers in this field have to remain regularly updated which causes extra mental and physical burden. This study is collaborated by another publication from Thomas & Valli, (2006) on junior doctors where definite correlation between long duty hours and behavioural problem was established amongst the participants.

Oginska-Bulik (2006) and Melchior et al., (2007) in separate studies amongst young women workers concluded irregular duty schedule and extended duty hours affects them badly and a major reason behind their mental break down

Saraji and Dargahi in 2006 conducted a study at Teheran University of Medical Sciences over influence of financial benefit, occupational safety, work life balance etc. on satisfaction level of employees, both the positive and the negative impact. They conducted a cross-sectional,

descriptive and analytical study with a questionnaire comprising of 14 key factors.More than 900 employees of15 different hospitals participated in this study. Most of them were dissatisfied with different issues. Based on this study different QWL variables were identified like employees pay structure, autonomy and participation in decision making, career development, occupational safety measures, job security and reward system, relation with seniors, work life balance etc.

Ogbimi and Adebamowo (2006) conducted their study over working relationship between doctors and nurses within organization and stressed on proper working environment, balanced managerial policies, timely conflict resolution maneuver, training opportunity etc. for positive outcome.

Hsu and Kernohan (2006) in their study on nurses in Taiwan identified six factors to work on e.g., demography, human relation, socio-economic status, organization and self-actualization etc.
Caruso et al., 2006, Lockley et al., 2007 in separate studies amongst physicians habituated to duty schedules continuously for 24 hrs or more opined they are prone to recurrent physical and road traffic injuries.

Lockley et al., (2007); also related exhaustive working schedule with reduced QWL and family disharmony. In a separate study similar picture was established by Barger et al., (2009).

Vultee., et.al. in 2007, conducted an important study in Sweeden that was concerned with operational freedom of Physicians. They concluded that organizational support is a vital factor that enhances work satisfaction and dissipates work related exhaustion.

Van Laar et al. (2007) developed the concept of work-related quality of life (WRQoL) scale for employees under health care system. It described six dimensions, that includes work condition, stress and its control at work, interface between work life and home life, job satisfaction and career satisfaction etc

Shailesh et al. (2007), did their study on Psychiatrists working in New Zealand, taking note of the emotional aspect, their work satisfaction and burnout were discussed
Cohen and Liani,2008, described the positive and mutual relationship between work life and family life in their study at Israel Healthcare System.

Lockley et al. (2007) in his study established poor job performance and medical errors are associated significantly with extended duty hours and also detrimental to mental health of the workers. According to him sleep deprivation is a key factor behind all these ailments.

Burns and Muller in 2008 investigated the Hospital-Physician relationships (HPRs) in the light of economic performance and concluded in favor of better financial status of physician as well as application of positive operational and behavioral skills within the organization that help manage HPRs successfully

Madaan (2008) in INDIA worked on demographic aspect over senior and junior residents, and concluded working condition stands as a deterrent factor in this aspect

O'Leary et al in 2009 conducted gender specific study within Russian Physicians and found level of job satisfaction to be comparatively higher amongst male.

Webster et al. (2009) conducted study on work and professional life balance within Nursing communities using content analysis, interviews and constant comparative studies with parameters like safety, recognition, opportunityetc.

Barger et al., (2009), in their study on health care worker as a whole described psychological and physical ailments like depression, musculoskeletal, gastrointestinal and cardiac

disorders as direct outcome of ill-defined shift work, disturbing normal circadian rhythm of every worker involved. Similar observations were found out by van der Colff & Rothmann, (2009).

In a study done by Tomic and Tomic (2008), it was revealed that long hour duties, attending call book at odd time, shifting pattern of duties etc causes grave physical as well as mental burn out very early. Al- Momani (2008) observed similar result in his study and concluded excessive work load affects health workers adversely

Barger et al., (2009), in their study on health care worker as a whole described psychological and physical ailments like depression, musculoskeletal, gastrointestinal and cardiac disorders as direct outcome of ill-defined shift work, disturbing normal circadian rhythm of every worker involved. Similar observation was found out by van der Colff & Rothmann, (2009).

Mache, Vitzthum, Nienhaus, Klapp, and Groneberg (2009) also established relationship between working hours and major psychosocial complaint amongst doctors of Pediatric Dept. in a German Hospital.

Barker & Nussbaum (2011), identified the physical and psychosocial adverse effects in both acute and chronic form and acknowledged those factors like night shifts, duties on shifting basis as serious occupational hazard associated with health care profession. Geiger-Brown et al (2012).in another study advocated in favor of reducing duty hours from 12h shift to 8 h so as to provide better health care for patients. In this study a positive correlation was postulated for female workers where incidence of immunological disorder and carcinoma breast found to increase possibly due to excess exposure to artificial illumination resulting in Melatonin suppression and carcinogenesis as a sequel. This observation was consistent with previous studies by Hansen, 2001; Lockley et al., 2007.

Similar study was done by Vagharseyyedin et al (2011) who predicted six parameters to measure Nurses' QWL eg., shift job, economic benefit, work place relationship, strenuous job character, demographic pattern and above all leadership or managerial attitude at work

Nataranjan and Annamalai (2011) stressed on developing support system for the employees to maintain QWL and thereby reducing absenteeism and increasing productivity.

Bagtatos (2011) expressed concern on need of individual like wellness, security etc and its correlation with organizational needs

Lee et al. (2013) used CHINESE version of QNWL(C-QNWL) in their study to assess the QWL of nurses with ten subscales like work life balance, leadership style, recognition of self, job security, good teamwork, autonomy and staffing pattern etc. Mixed response found within the population under study

Inadequate resources and lack of stock control, outdated infrastructural support and old malfunctioning equipment are great barrier for providing ideal care for patients and also for day to day functioning of health workers including physicians.

Like all other professions, institutional infrastructure and ergonomics play important role in physicians QWL and performance. This conception is supported from observation of South African Human Rights Commission (SAHRC, 2000), where they stressed on proper infrastructure including electricity, water supply and good communication system. They also emphasized on providing adequate spaces and public facilities in hospital set up for providing better health care. DPSA Report, (2006), prepared after auditing 434 hospitals, suggested proper maintenance and timely replacement of life saving medical equipment. With advent of urbanization, newer type of ailments like AIDS, SARS etc. hospital admission rate has escalated, adding more inconvenience to physicians who are working under compromised institutional infrastructure. Benatar (2004); Hall (2004) and

Breier et al (2009) have provided enough evidences in support of this view in their studies at different period of time.

Other than instrumental and infrastructural resources, scarcity of human resource is also source of anguish for health care providers particularly in developing countries. Lack of trained man power is also evident in developed world to some extent as suggested from different studies.

Adkoli (2006) and Oulton (2006) in their different studies done in Europe. suggested huge shortage of trained man power including doctors in coming years. Li et al. (2010),Rouleau et al (2012) also predicted similar outcomes in their studies
Kuehn (2007), suggested advent of higher technology in medical field and increased life expectancy being the crucial reason behind this crisis

Rouleau et al. (2012) and Bemelmans et al., (2011) in their studies at Seneagal and Malawi respectively described severe dearth in qualified manpower including Doctors and Nurses contributing to improper medical care with increased morbidity and mortality.

Such crisis has led many a developing country in task-shifting i.e., using unskilled workers where high skilled personnel are not available. Breier (2009), Munga et al, (2012) reported such cases at South Africa and Tanzania respectively. Walsh et al., (2010) cited examples where nursing staff had to accomplish doctors' job to alleviate impending crisis in Zambia. Often junior doctors even newly employed nurses are being utilized which leads to inappropriate patient management as cited by Connell et al., (2007). On the contrary Chikanda, (2006), Breier (2009) reported case where due to overall staff scarcity highly skilled employees like specialized doctors have to undertake functions of junior or unskilled staffs. that also hampers proper patient care.

TheOosthuizen & Ehlers, (2007), Kinfu et al. (2008) in their report regarding skilled manpower shortage pointed out poor monitoring process and distribution policy as the chief reason.

Lagarde and Blaauw (2009) cited inadequate training facility, enormous and unprecedented growth of need, lack of respect or attraction to the job attributes to man power crisis in health sector. Li et al., (2010); Mokoka et al., (2011) also seen to hold similar perception.

Opollo et al. (2014) adapted Van Laar WRQoL scale to study perceived work-related quality of work life in their study on health care workers in Uganda considering gender and work hours of employees and reported significantly low level of QWL within the studied population.

Adisa T. et al. (2014) investigated work family balance of female employees (both doctor and nurse) in Nigeria and described a negative pattern mostly due to workplace and domestic atmosphere

Nowrouzi et al. (2015) investigatedrelationship between QWL with nurses' health using a mixed approach that comprises both questionnaires along with semi structured interviews and advocated a significantly proportionate outcome.

Migration of physicians for better opportunities and prospect is recent and alarming reasoned behind manpower crisis in health sectors. Al-Momani, (2008); Manyisa et al., (2015) studied the reason behind doctors preferring private sectors due to financial benefit, which causes huge vacancy at govt. sectors and a near collapse situation often arises.

Bragard, I. (2015) conducted his study related to work stress and burn out of doctors and found moderate to severe degree of job-related stress mostly a result of poor infrastructural and organizational support.

Scully, R.et.al. (2017), worked on maternity leave and its impact on professional and personal life of female employees and established a negative economic impact resulting extreme job dissatisfaction

Connell et al., (2007), Mullei et al., (2010), attributed migration of health worker including doctors as a reason for man power crisis. Chikanda, (2006); Kotzee & Couper, (2006),Lehmann et al. (2008), Coovadia (2010),Mokoka et al., (2011). also reported continuous shifting of doctors and other skilled workers from rural to urban areas and attributed heavy work load, poor infrastructure, faulty management policy, lack of opportunity for self-development, poor salary as key factors behind this migration

Different scholars studied deeply on this aspect to combat with the trend of migration of qualified health personnel, and to increase retention. Marchal, Brouwere, and Kegels (2005) suggested some specific changes in policy making like flexi -work, career advancement policy etc. Cho et al, (2006) highlighted on offering enough resources and time for completing the task, monetary support etc to increase loyalty to institution. Manyisa et al., (2015), in his study stressed on adequate infrastructure to increase job satisfaction and retention.

Turner. I (2017) also worked over gender specific job-related stress in Nigerian Medical Service and found gross dissatisfaction amongst female physicians as they find it difficult to maintain balance between family and work life due to shortage of staff, long working hours and discriminative attitude from the authority.

FURTHER SCOPE OF RESEARCH

1. From elaborate literature review it is possible to identify the lacunas in policy making concerning health care sector which exerts significant influence on QWL of health care workers.
2. To exclude subtle gaps at existing studies and include those factors in further research process.
3. To develop a conceptual framework based on factors with negative effect on QWL of health care providers so as to identify possible curative solution that is essential to enhance employee satisfaction and organization performance as well.
4. Comparative study can be undertaken between public and private sectors to elaborate and isolate the causal association of stressors hampering work life balance of health care employees more effectively

V. CONCLUSION

The literature on hospital work practices was discussed in this section. According to the research, work environment in public hospitals, in particular, are far from ideal.Patient counts were increased, outbreak situations were addressed, work overload, long shifts, physical infrastructure, and manpower shortages were all identified as factors affecting working conditions in public hospitals. According to the review, unsatisfactory working conditions have a negative impact on employees' physical and emotional well-being. To address these issues, the assessment looked into a number of strategies that could enhance working conditions in public hospitals.

It is obvious from this analysis that providing a happy working environment is critical for the well-being of health care workers, patients, and the company. A survey of the literature showed techniques for overcoming obstacles to optimal working conditions. According to this study, excessive workloads, irregular shifts, and long working hours are important indicators of job discontent, high degrees of burnout, low morale fatigue, and emotional exhaustion among health care personnel.

REFERENCES

Ashoob, Taghi. 2006 *"Study of The Relationship between Quality of Work Life and Organizational Commitment of The High Schools of Gonbad-e-Kavus City"*, master's dissertation.

Adkoli, B. V. (2006). Migration of health workers: Perspectives from Bangladesh,
India, Nepal, Pakistan and Sri Lanka. Regional Health Forum, 10(1), 49–58.

Adhikari, D.R & Gautam, D.K. Labor legislations for improving quality of work life in Nepal. *International Journal of Law and Management*, *52(1)*, 2010, 40-53.

Asgari, Mohammad Hadi and Dadashi, Mohammad Ali. Determining the Relationship between Quality of Work Life (QWL) and Organizational Commitment of Melli Bank Staff in West Domain of Mazandaran in 2009-2010, *Australian Journal of Basic and Applied Sciences*, *5(8)*, 2011, 682-687

Bragard, L G. Dupuis D, Razavi C. Reynaert and A.M. Etienne. Quality of work life in doctors working with cancer patients *Occupational Medicine (London)*, *62 (1)*, 2012, 34-40.

Barger, L. K., Lockley, S. W., Rajaratnam, S. M., & Landrigan, C. P. (2009).
Neurobehavioral, health, and safety consequences associated with shift work
in safety-sensitive professions. Current Neurology and Neuroscience Reports, 9(2),
155–164.

Barker, L. M., & Nussbaum, M. A. (2011). Fatigue, performance and the work
environment: A survey of registered nurses. Journal of Advanced Nursing, 67(5).
Bemelmans, M., van den Akker, T., Pasulani, O., Tayub, N. S., Hermann, K.,

Caruso, C. C., Bushnell, T., Eggerth, D., Heitmann, A., Kojola, B., Newman, K., et al.
(2006). Long working hours, safety, and health: Toward national research agenda. American Journal of Industrial Medicine, 49(11), 930–942.

Chikanda, A. (2006). Skilled health professionals' migration and its impact on health
delivery in Zimbabwe. Journal of Ethnic and Migration Studies, 32(04), 667–680.

Cho, J., Laschinger, H. S., & Wong, C. (2006). Workplace empowerment, work
engagement and organizational commitment of new graduate nurses. Nursing
Leadership-Academy of Canadian Executive Nurses, 19(3), 43.

Connell, J., Zurn, P., Stilwell, B., Awases, M., & Braichet, J. (2007). Sub-Saharan Africa:
Beyond the health worker migration crisis? Social Science & Medicine, 64(9),
1876–1891.

Coovadia, H., Jewkes, R., Barron, P., Sanders, D., & McIntyre, D. (2009). The health
and health system of South Africa: Historical roots of current public health challenges. The Lancet, 374(9692), 817–834.

Casio, W.F,(1998), *Managing human resources: productivity, quality of work life, profits*, Irwin: McGraw-Hill, Boston, MA., 1998 .

Davoodi, Seyed Mohammad Reza, 1998. *"Study of the Impact of Quality of Work Life on Job Satisfaction among The Staff of Mobarakeh Steel Complex"*, master's dissertation, Tehran, Islamic Azad University.

Delobelle, P., Rawlinson, J. L., Ntuli, S., Malatsi, I., Decock, R., & Depoorter, A. M.
(2009). HIV/AIDS knowledge, attitudes, practices and perceptions of rural nurses in South Africa. Journal of Advanced Nursing, 65(5), 1061–1073.

Efraty, Davidand Sirgy, M. Joseph. The effects of quality of working life (QWL) on employee behavioral responses, *Social Indicators Research*, *22(1)*, 1990.

Emadzadeh, Mohammad kazem, Khorasani, Mahnaz and Nematizadeh, Fateme. Assessing the quality of work life of primary school teachers in Isfahan city, *Interdisciplinary Journal of contemporary Research in Business*, *January*, *3(9)*, 2012, 438-448.

Elizur, D., & Shye, S. Quality of work life and its relation to quality of life. *Applied Psychology: An International Review*, *39 (3)*, 1990, 275-291.
.
Geiger-Brown, J., Rogers, V. E., Trinkoff, A. M., Kane, R. L., Bausell, R. B., & Scharf, S. M.
(2012). Sleep, sleepiness, fatigue, and performance of 12-hour-shift nurses.
Chronobiology International, 29(2), 211–219.

George, G., & Rhodes, B. (2012). Is there really a pot of gold at the end of the
rainbow? Has the occupational specific dispensation, as a mechanism to attract
and retain health workers in South Africa, leveled the playing field? BMC Public
Health, 12(1), 613.

Hannif, Zeenobiyah & et.al, Call Centers and the Quality of Work Life: Towards a Research Agenda, *Journal of Industrial Relations*, *50(2)*, 2008, 271–284.

Hsu, M. Y., & Kernohan, G. Dimensions of hospital nurses' quality of working life. *Journal of Advanced Nursing*, *54*, 2006, 120–131.

Holden, R. J., Scablon, M. C., Patel, N. R., Kaushal, R., Escoto, K. H., Brown, R. L., et al.
(2011). A human factors framework and study of the effect of nursing workload
on patient safety and employee quality of working life. BMJ Quality & Safety, 20
(1), 15–24.

Kalra, S. K., & Ghosh, S. Quality of work life: A study of associated factors. *The Indian Journal of Social Work*, 1984, 45-54.

Kotzee, T., & Couper, I. (2006). What interventions do South African qualified
doctors think will retain them in rural hospitals of the Limpopo Province of
South Africa? Rural and Remote Health, 6(3), 581.

Klatt, Murdick and Schuster (1985), *Human resource Management*, Ohio, Charter E.Merrul Publishing Company, pp.585-592.

Kuehn, B. M. (2007). Global shortage of health workers, brain drain stress developing countries. JAMA, 298, 1853–1855. BMC Health Service Research, 10
(Suppl. 1): S1.

Laschinger, H. K., Finegan, J., Shamian, J., & Almost, J. Testing Karasek's demands-control model in restructured healthcare settings:

Effects of job strain on staff nurses' quality of work life. *The Journal of Nursing Administration, 31*, 2001, 233–243.

Lau, R.S.M()., Quality of work life and performance: An ad hoc investigation of two key elements in the service profit chain model, *International Journal of Service Industry Management*, *11(5)*, 2000, 422 – 437.

Lewis, D., Brazil, K., Krueger, P., Lohfeld, L., & Tjam, E. Extrinsic and intrinsic determinants of quality of work life. *Leadership in Health Services, 14*, 2001, 9–15.

Lehmann, U., Dieleman, M., & Martineau, T. (2008). Staffing remote rural areas in
middle- and low-income countries: A literature review of attraction and retention. BMC Health Services Research, 8(1), 19.

Li, J., Fu, H., Hu, Y., Shang, L., Wu, Y., Kristensen, T. S., et al. (2010). Psychosocial work
environment and intention to leave the nursing profession: Results from the
longitudinal Chinese NEXT study. Scandinavian Journal of Public Health, 38(3
Suppl), 69–80.

Lockley, S. W., Evans, E. E., Scheer, F. A., Brainard, G. C., Czeisler, C. A., & Aeschbach,
D. (2006). Short-wavelength sensitivity for the direct effects of light on alertness, vigilance, and the waking electroencephalogram in humans. Sleep-
New York Then Westchester, 29(2), 161.

Lockley, S. W., Barger, L. K., Ayas, N. T., Rothschild, J. M., Czeisler, C. A., & Landrigan,
C. P. (2007). Effects of health care provider work hours and sleep deprivation on
safety and performance. Joint Commission Journal on Quality and Patient Safety,
33(Suppl. 1), 7–18.

Locke, E.E. (1976), "The nature and causes of job satisfaction", in Dunnette, M.D. (Ed.), *Handbook of Industrial and Organizational Psychology*, Rand McNally, Chicago, IL, 1297-1349.

Manyisa, Z. M. (2015). A conceptual model for improving working conditions in public
hospitals in Mpumalanga Province. An occupational health and safety perspective
[PhD thesis]. Department of Nursing Science, University of Limpopo (Medunsa).
Melchior, M., Caspi, A., Milne, B. J.,

Mokoka, K. E., Ehlers, V. J., & Oosthuizen, M. J. (2011). Factors influencing the
retention of registered nurses in the Gauteng Province of South Africa: Original
research. Curationis, 34(1), 1–9.

Mullei, K., Mudhune, S., Wafula, J., Masamo, E., English, M., Goodman, C., et al.
(2010). Attracting and retaining health workers in rural areas: Investigating
nurses' views on rural posts and policy interventions. BMC Health Services
Research, 10(1), S1.

Munga, M. A., Kilima, S. P., Mutalemwa, P. P., Kisoka, W. J., & Malecela, M. N. (2012).
Experiences, opportunities and challenges of implementing task shifting in underserved remote settings: The case of Kongwa district, central Tanzania.
BMC International Health and Human Rights, 12(1), 27.

Nadler, D.A. and Lawler, E.E. Quality of Work Life: Perspective and Direction. *Organizational Dynamics*, *11(3)*, 1983, 20-30.

Najafi, Ali, 2006. *"Study of The Relationship between Quality of Work Life and Profiting of Middle Managers of Iranian Gas Company"*, Master's dissertation, Tehran, Allameh

Nayeri, Nahid Dehghan, Salehi, Tahmineh and Noghabi Ahmad Ali Asadi. Quality of work life and productivity among Iranian nurses, *Contemporary Nurse, 39(1)*, 2011, 106–118

Nayeri, N. D., Negarandeh, R., Vaismoradi, M., Ahmadi, F., & Faghihzadeh, S. Burnout and productivity among Iranian nurses, *Nursing & Health Sciences, 11*, 2009, 263–270

Robbins, S.P. (1989), *Organizational Behavior: Concepts, Controversies, and Applications*, Prentice-Hall, Englewood Cliffs, NJ.

Rossmiller, R. A. The secondary school principal teachers' Quality of Life, *Educational Management and Administration*, *20.* 1992. 132-146.

Turner, B.A. &. P. Chelleadurai. Organization and occupational commitment, intention to leave and perceived performance of intercollegiate coaches, *Journal of sport management*. 2005

Turner, B.A., &. Pack. Multi-dimensional commitment of intercollegiate student-athletes: its effects on intent ion to leave and satisfaction" *Journal for the study of sports and athletes in education.* 2007 .

Van Laar, D., Edwards, J. A., & Easton, S. The Work-related quality of life scale for healthcare workers. *Journal of Advanced Nursing, 60*, 2007, 325–333.

Walton, R.E. Improving the QWL, *Harvard Business Review*, *19 (12)*, May-June, 1980, 11-24.

Winter, R., Taylor, T. and Sarros, J., Trouble at Mill, "Quality of Academic work life issues within a comprehensive Australian University", *Studies in Higher Education*, *25 (3)*, 2000, 279-294.

Zare, Hamid, Haghgooyan, Zolfa and Asl, Zahra Karimi. Determining and Prioritizing the Criteria and Scales of Quality of Work Life (QWF) by AHP Method, *European Journal of Social Sciences*, *27(3)*, 2012, 346-359.