

QoWL (Quality of Working Life)—What, How, and Why?

Simon Easton, Darren Van Laar
University of Portsmouth, Portsmouth, UK

The term “QoWL” (quality of work life) has been used in academic literature for over 50 years and usually refers to aspects of the broader concept of quality of life that relates to the work setting. Typically, the conceptualisation of QoWL has incorporated job satisfaction and stress, but agreement on what else should be included among key facets has been hard to achieve. We provide here a brief overview of the development of the concept of QoWL, before considering evidence relating to its relevance in the workplace. We then describe the WRQoL (work-related quality of life) scale and provide an overview of the development of this measure and the psychometric properties of the six subscales. We go on to review evidence which indicates that, having defined and identified a method of measuring QoWL, how attention to this aspect of the work setting may lead to a range of benefits. Lastly, we discuss issues relating to the future development and refinement of the application of the WRQoL scale and how it might be of benefit a broad range of individuals and organisations.

Keywords: QoWL (quality of working life), evidence-based practice, evaluation, WRQoL (work-related quality of life) scale

Job satisfaction and stress at work have for many years attracted much attention from those seeking to help optimise outcomes in the workplace (Lawler & Porter, 1966; Mullarkey, Wall, Warr, Clegg, & Stride, 1999). Whilst there is some evidence that interventions to improve job satisfaction and reduce stress at work can be effective, there is a risk that trying to tackle these issues in isolation may limit what can be achieved (Gershon, Barocas, Canton, Li, & Vlahov, 2009; Limm et al., 2011; Dieleman, Gerretsen, & van der Wilt, 2009). Thus, Peters and Carlson (1999) concluded from a study of worksite stress management/health promotion program that, although the results indicated that there were significant benefits on certain of the physical and behavioral measures, self-efficacy, and some health attitudes, there were no effects for job-related measures, such as absenteeism and job satisfaction. Concerns about the potential limited value of interventions targeting only narrow aspects of employees’ work experience had previously been expressed by Burke (1993), who suggested that organisationally generated stressors could be difficult to mitigate through stress management programmes when delivered only at the individual employee level.

It could be argued that more complex models of an employee’s experience in the workplace have tended to be set aside in an endeavour to make the conceptualisation of the work environment and what might be done to improve it more manageable. In addition, it could be that focus on such aspects is actually driven by the availability of measures. Thus, the existence of measures of stress and job satisfaction may tend to lead to a compartmentalisation and narrowing of focus in research studies in this important area. It will be argued here

that consideration of the larger, more complex picture is essential if a complete understanding of the factors that affect employees experience and performance in the workplace is to be achieved. Such an understanding of not only the specific key factors that affect employees, but also the relationships between those factors may offer the best opportunity for more effective and therefore efficient interventions in the workplace. At the broadest level, an individual's experience can be understood in terms of their perceived quality of life (Felce & Perry, 1995), but we will argue here that QoWL (quality of working life) can usefully and profitably be differentiated from the broader concept of quality of life (Elizur & Shye, 1990).

What Is QoWL?

One of the earliest uses of the term "QoWL" is found in the work of Mayo (1960), but the subsequent 50 years or so has not led to a clear consensus as to how precisely the term should be defined. Many writers have proposed models of QoWL, drawing upon various combinations of factors, based mostly on theorisation, and more rarely on empirical research. Thus Hackman and Oldham (1974) suggested that an individual's psychological growth needs should be addressed in any worthwhile endeavour to increase QoWL. Among the needs they identified were: task identity and significance, autonomy and feedback. Taylor, Cooper, and Mumford (1979) identified other facets of QoWL as key, including what they saw as extrinsic factors such as wages, hours and working conditions, and intrinsic factors associated with the nature of the work itself. They also referred to other factors including: employee participation in management, fairness, social support, self-development and the social relevance of the work or product. Taylor et al. (1979), were among the first to suggest that the key concepts underpinning QoWL might vary between organisations and employee groups. Other researchers, such as Warr, Cook, and Wall (1979), used evidence of correlations between factors such as work involvement and job satisfaction, intrinsic job motivation and job satisfaction, and perceived intrinsic job characteristics and job satisfaction to support their theoretical model of job satisfaction. Mirvis and Lawler (1984), Cunningham and Eberle (1990), and Baba and Jamal (1991) were among those who contributed to the growing list of possible sub-factors, including, for example, equal employment opportunities, administrative system, work role ambiguity, and turn-over intentions. Katzell (1983) emphasised the relevance of training, supervision, job enrichment, equitable pay, flexible work schedules, and integrated socio-technical systems.

An alternative to the apparently limitless listing of possible factors is found in the work of Lau and Bruce (1998) who suggested that QoWL as a construct might best be viewed as a dynamic entity. Similarly, the possibility that QoWL might vary between groups of workers can be detected throughout the literature as illustrated in the work of Ellis and Pompli (2002), who identified what they saw as factors specifically relevant to poor QoWL among nurses, such as resident aggression, inability to deliver quality of care preferred, shift-work, lack of involvement in decision-making and lack of recognition.

Throughout the history of the use of the term QoWL, there have been a number of key themes. Martel and Dupuis (2006) identified what they saw as four main models or approaches for the conceptualisation of QoWL. The first approach is based on the Transfer Model or Spillover Effect (Kavanagh & Halpern, 1977) which emphasizes the associations between work and non-work areas of life (Schmitt & Bedeian, 1982). There is indeed support for the proposal that job satisfaction affects and is affected by an employee's non-work experience (George & Brief, 1990). Staines (1980) and Rousseau (1978) challenged the suggestion that the Transfer Model could apply to all kinds of jobs on the basis that jobs with unusual characteristics such as high levels of isolation or physical demand may be better understood in terms of a second approach: the

Compensation Model. The Compensation Model (Schmitt & Mellon, 1980) is based on the assumption that dissatisfaction at work will trigger compensatory behaviour outside work (Schmitt & Mellon, 1980). Some support for the Compensation Model in certain circumstances has been provided by Staines (1980) who has shown that certain spheres of work life do tend to correlate negatively with specific non-work spheres. Nevertheless, some have criticised the Compensation Model on the basis that the model implies the existence of an inverse relationship between job satisfaction and non-work satisfaction (Martel & DuPuis, 2006). A third approach is that of George and Brief (1990), who offered a Segmentation Model which hypothesises that work and home-life do not actually substantially affect each other. Thus, Martin and Schermerhorn (1983) suggested that a clear separation of job and non-work spheres would lead to higher levels of satisfaction and emphasised the importance of boundaries between work and non-work aspects. In contrast, the active variation of investment in work and home to balance demands in each sphere has been envisaged in Lambert's Accommodation Model (Lambert, 1990). This model draw upon the premise that individuals can choose to reduce their investment in one sphere of activity to help them meet the demands elsewhere (Lambert, 1990), as, for example, might be seen among mothers of young children.

This kind of theoretical modelling has provided a basis for research, as for example in the study undertaken by Denvir, Hillage, Cox, Sinclair, and Pearmain (2008) for the Institute for Employment Studies. The story of the development of the concept of QoWL has only recently begun to include more rigorous empirical research which allows exploration of the relationships between identified components.

How Might One Measure QoWL?

In 1998, the UK's DoH (Department of Health) issued instructions in a document, "Working together: Securing a quality workforce for the NHS" (DoH, 1998) to the effect that the organisation should undertake annual staff surveys which would serve as a benchmark to assess and evidence improvements in quality of working. As a result, many parts of the UK's National Health Service designed and distributed survey questions which were designed to address aspects of QoWL such as communication, management, flexibility, development, job satisfaction, staff involvement, reward, and equality.

A principal components analysis of one such survey of 1,800 NHS staff in 1999 highlighted four factors explaining 60% of the variance. The four factors loosely correlated with hygiene factors, social aspects of the work setting, relationship with management/the organisation, and job satisfaction. On the basis of subsequent analyses of those survey results and in the light of relevant research, existing models of QoWL (e.g., Warr et al., 1979), and theoretical approaches to QoWL (Maslow, 1954; Herzberg, 1966; Loscocco & Roschelle, 1991), a working conceptualisation of QoWL was generated. That process was hampered as theories and scales of QoWL were often based on widely divergent and even contradictory definitions of the concept of QoWL. Indeed, Kandasamy and Ancheri (2009) have suggested that QoWL has been viewed variously as a movement, organisational interventions, or even as a type of work life. Further analysis of surveys based on that working definition led to refinement of the concept and to development of the WRQoL (work-related quality of life) scale.

The WRQoL scale is a 23-item psychometric scale (see Table 1) which seeks to gauge the perceived quality of life of employees (Edwards, Webster, Van Laar, & Easton, 2008). Analysis of large samples of NHS staff led to identification of six independent psychosocial factors as contributing to QoWL (Van Laar, Edwards, & Easton, 2007). The reliability of those six factors has since been confirmed in other samples (Edwards, Van Laar, Easton, & Kinman, 2009). The factors are: JCS (job and career satisfaction), GWB (general well-being),

SAW (stress at work), CAW (control at work), HWI (home-work interface), and WCS (working conditions). In a survey of 3,792 participants from nine UK universities, a multiple regression procedure was used to predict answers to the question: “I am satisfied with the overall my QoWL” from the six WRQoL factors results of the analysis demonstrated an extremely high level of construct validity (accounting for 68.8% of the variance). The WRQoL scale has good sub-scale reliabilities (see Table 2) and good convergent, discriminant validity, and test-retest reliability. Further details of the validity and reliability of the WRQoL, including the marking and scoring scheme, are provided in the WRQoL User Manual (Easton & Van Laar, 2012).

Table 1

The 23-Item WRQoL Scale

Question number	WRQoL factor	WRQoL question text
1.	JCS	I have a clear set of goals and aims to enable me to do my job
2.	CAW	I feel able to voice opinions and influence changes in my area of work
3.	JCS	I have the opportunity to use my abilities at work
4.	GWB	I feel well at the moment
5.	HWI	My employer provides adequate facilities and flexibility for me to fit work in around my family life
6.	HWI	My current working hours / patterns suit my personal circumstances
7.	SAW	I often feel under pressure at work*
8.	JCS	When I have done a good job it is acknowledged by my line manager
9.	GWB	Recently, I have been feeling unhappy and depressed*
10.	GWB	I am satisfied with my life
11.	JCS	I am encouraged to develop new skills
12.	CAW	I am involved in decisions that affect me in my own area of work
13.	WCS	My employer provides me with what I need to do my job effectively
14.	HWI	My line manager actively promotes flexible working hours / patterns
15.	GWB	In most ways my life is close to ideal
16.	WCS	I work in a safe environment
17.	GWB	Generally things work out well for me
18.	JCS	I am satisfied with the career opportunities available for me here
19.	SAW	I often feel excessive levels of stress at work*
20.	JCS	I am satisfied with the training I receive in order to perform my present job
21.	GWB	Recently, I have been feeling reasonably happy all things considered
22.	WCS	The working conditions are satisfactory
23.	CAW	I am involved in decisions that affect members of the public in my own area of work

Notes. GWB (general well-being), HWI (home-work interface), JCS (job career satisfaction), CAW (control at work), WCS (working conditions), and SAW (stress at work). All items are scored on a five-point Likert scale from 1 = “Strongly disagree” to 5 = “Strongly agree”, with starred items (*) reverse scored.

Table 2

Sub-scale and Overall Reliability Scores for the WRQoL Scale

Factor	Cronbach's alpha
JCS	0.86
GWB	0.89
HWI	0.82
SAW	0.81
CAW	0.81
WCS	0.75
Overall scale (23 items)	0.91

Notes. JCS (job and career satisfaction), GWB (general well-being), HWI (home-work interface), SAW (stress at work), CAW (control at work), and WCS (working conditions).

The WRQoL scale has been widely used across the world, and has been translated into various languages including: Chinese, Farsi, French, Spanish, Turkish, and Welsh (see Easton & Van Laar, 2012). The WRQoL scale has been used at organisation level, work group level, and individual level to determine the key factors that contribute to a high QoWL. The six separate WRQoL factors are described below.

Factor One: JCS

This factor has a sub-scale reliability of 0.86 and contains six items relating to satisfaction with the job and career opportunities: e.g., “I am satisfied with the career opportunities available for me here” (item 18). The JCS factor assesses the degree to which the workplace provides a person with the things that make them feel good, such as sense of achievement, high self-esteem, and fulfillment of potential. This factor is highly correlated with other measures of job satisfaction (i.e., $r = 0.87$ with the Warr job satisfaction scale (Mullarkey et al., 1999; Easton & Van Laar, 2012)).

Factor Two: GWB

This factor has a subscale reliability of 0.89. The six items contributing to this factor are broadly related to the general feeling of happiness and life satisfaction an individual experiences, e.g., item 17, “Generally things work out well for me”. Thus, an individual’s sense of GWB will be to some degree independent of their work situation, and will both influence, and be influenced by, his/her work experience. The GWB sub-scale of the WRQoL is highly correlated with measures of general well-being (e.g., $r = 0.57$ with the General Health Questionnaire 12 (Goldberg, 1978; Easton & Van Laar, 2012)). Higher GWB scores might be expected to correlate with sense of psychological wellbeing, fulfilling relationships, and ability to adapt to change and cope with adversity at work (see Seymour & Grove, 2005).

Factor Three: HWI

This factor is based on three items associated with accommodation of family and work commitments: e.g., “My current working hours/patterns suit my personal circumstances”. The HWI factor has a sub-scale reliability of 0.82 within the WRQoL scale, and addresses work-life balance which has also referred to as work-family conflict in the wider literature (Bruch, Allen, & Spector, 2002).

Factor Four: SAW

This factor is represented by two items which reflect the extent to which an individual perceives they are subject to excessive pressure or experience of stress at work. Workplace stress has been linked to higher levels of job satisfaction (Freeborn, 2001).

Factor Five: CAW

The three items on the CAW factor are associated with sense of control over decisions at work: for example, “I am involved in decisions that affect me in my own area of work”. Sense of control has been linked to level of reported stress (Spector, 1988; Parkes, 1991; Jex & Spector, 1996), with sense of control at work and job satisfaction (Spector, 1986), and health and well-being (Spector, 2002).

Factor Six: WCS

The WCS factor is based on three questions related to the physical working environment, e.g., “The working conditions are satisfactory”.

While the JCS factor assesses the degree to which employees feel their workplace provides them with sources of satisfaction, the WCS factor reflects the degree to which the workplace can generate dissatisfaction through

perceived inadequacies of the physical work environment. The WRQoL assesses the aspects of experience of work that have been identified as being of the greatest importance and influence within the survey samples. For any one individual, however, there may be factors that are not assessed by the WRQoL that play a key role and so the survey results for any sample require careful interpretation within the specific context.

WRQoL surveys allow organisations to compare findings among groups of their staff and with benchmarks taken from surveys of other organizations. The WRQoL benchmark is based on an all-staff sample from 10 UK universities. Detailed analysis of survey data in the light of such comparisons therefore allows identification of areas of good practice, and can draw attention to issues warranting attention. However, by definition, survey results provide an averaged snapshot, and there may be wide variation in the experience of respondents. Exploratory use of the WRQoL with individuals has highlighted a high level of reported face validity, and the existing norms have appeared to offer an adequate benchmark to assist interpretation of subscale scores for individuals. Some further evaluation of the benchmarks in the context of interpretation of individual results is underway, but the impression to date is that the use of the WRQoL scale with individuals may be most helpful for managers, counsellors, career advisors and as part of individual appraisal processes. The individual assessment pack (Easton & Van Laar, 2012) provides a readily accessible summary of results and can assist in the development of an understanding of an employee's situation with a view to identifying aims and objectives. Re-assessment with the WRQoL scale can assist in the evaluation of action and/or interventions at the individual level.

Why Address QoWL?

Worrall and Cooper (2006) reported that a low level of well-being at work is estimated to cost about 5%–10% of Gross National Product per annum. The costs of lost or reduced level of output to organisations and the personal costs to individuals who spend so much of their lives at work clearly warrant attention. But even if QoWL can be accurately measured and the underlying factors disentangled, can interventions actually make a difference?

There is some evidence to indicate that measurable improvements in employees' QoWL can be achieved. For example, Somerset County Council in the UK sought to improve the QoWL of their employees in an attempt to reduce levels of stress and sickness absence (Tasho, Jordan, & Robertson, 2005). Reported findings were that sickness absence levels reduced from 10.75 days in 2001–2002 to 7.2 days in 2004–2005. This was estimated to represent a total net saving of approximately £1.57 million over two years. In a meta-analysis of 312 studies, Judge, Thoresen, Bono, and Patton (2001) reported a correlation of 0.30 between factors typically associated with QoWL and self-reported productivity. Findings from a Finnish program were reported to indicate that QoWL and performance appeared to be correlated (Pearson's $r = 0.5$) (Ramstad, 2007). Of course, whilst organisations may seek evidence to support the likelihood of financial savings or benefits springing from focus on QoWL, assessment and promotion of QoWL can be seen as part of the legal duty of care for the health and safety of their employees: in the UK, HSE (health & safety) legislation requires the assessment of psychosocial hazards.

More specifically, the feedback from organisations using the WRQoL has been positive. The University of Huddersfield is among some 10% of the universities in the UK who have used the WRQoL, and there is evidence that the process of repeated surveys has been found valuable: "The QoWL benchmarking tool has enabled the University of Huddersfield to demonstrate healthy wellbeing and stress levels among staff, improve working practices and encourage changes in HR to improve absence management" (Wolff, 2009).

WRQoL—A Work in Progress

QoWL as conceived in Western literature (e.g., Martel & Dupuis, 2006), may need adaptation if it is to be relevant to other countries and cultures. Haire, Ghiselli and Porter (1966) suggested for example that Maslow's (1954) model of hierarchy of needs worked well for USA based managers but less so for managers in other countries. Hofstede (1984) identified four factors which helped explain the differences in responses in work related value patterns among various cultures: power distance (acceptance or rejection of hierarchies of power), individualism (as against collectivism), masculinity (focus on material success/assertiveness as opposed to interpersonal relationships and caring for the weak), and uncertainty avoidance (tendency towards avoidance of the unpredictable vs. acceptance of personal risk, for example). Hofstede (1984) proposed that endeavours to increase QoWL may be unsuccessful if culture specific differences are not taken into account. Hofstede (1972) had previously suggested that the factors driving QoWL may differ between employees at different levels in an organisation even within a culture. Thus, an emphasis on the content of jobs among professionals and managers might, for example, be appropriate for that group, whilst a focus on the social context might be more relevant among clerks and technicians. Further evaluation of the use of the WRQoL in various cultures is underway (e.g., Duyan, Aytaç, Akyıldız, & Van Laar, 2013; Lin, Chaiear, Khiewyoo, Wu, & Johns, 2013).

The concept of QoWL has been about for some time now, and we have sought here to provide an overview of the process by which, through research and theorisation, a testable working definition can be generated. The psychometric examination of that conceptualisation has contributed to an answer to the question "what is QoWL" in this article. The development of a valid and reliable measure addresses the "how", and we have endeavoured to address the "why"?

Whilst noting the reservations identified above, and the need to interpret all psychometric test results, we believe that the WRQoL does offer a reliable and valid assessment of the core factors underpinning QoWL. The WRQoL can be used in organisations, in parts of organisations and with individuals. It can be used as part of an annual appraisal, in occupational health assessments as well as in other work-related contexts such as career guidance and counselling setting. Such a measure can contribute to the process of assessment prior to intervention, identification of appropriate interventions and the assessment of outcomes.

The WRQoL scale has been used in more than a 30 countries throughout the world. Research in different cultures may lead to adaptation of the WRQoL to ensure that it is culture free. In the meantime, we believe that the WRQoL, which has been made freely available online courtesy of the UK University of Portsmouth (see qowl.co.uk), can contribute to the better understanding and so utilisation of the concept of QoWL, which has been so hamstrung hitherto by lack of consensus and valid measures.

References

- Baba, V. V., & Jamal, M. (1991). Routinisation of job context and job content as related to employee's quality of working life: A study of psychiatric nurses. *Journal of Organisational Behaviour*, 12, 379-386.
- Bruch, C. S., Allen, T. D., & Spector, P. E. (2002). The relation between work-family conflict and job satisfaction: A finer-grained analysis. *Journal of Vocational Behavior*, 60, 336-353.
- Burke, R. J. (1993). Organisational level interventions to reduce occupational stressors. *Work and Stress*, 7(1), 77-87.
- Cunningham, J. B., & Eberle, T. (1990). A guide to job enrichment and redesign. *Personnel*, 67(2), 56-61.
- Denvir, A., Hillage, J., Cox, A., Sinclair, A., & Pearmain, D. (2008). *Quality of working life in the UK* (research report 452). Sector Skills Development Agency.

- Dieleman, M., Gerretsen, B., & van der Wilt, G. J. (2009). Human resource management interventions to improve health workers' performance in low and middle income countries: A realist review. *Health Research Policy and Systems*, 7(7), 1-13.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1), 71-75.
- Dorsey, E. R., Jarjoura, D., & Rutecki, G. W. (2003). Influence of controllable lifestyle on recent trends in specialty choice by US medical students. *Journal of the American Medical Association*, 290(9), 1173-1178.
- Duyan, E. C., Aytac, S., Akyildiz, N., & Van Laar, D. (2013). Measuring work related quality of life and affective well-being in Turkey. *Mediterranean Journal of Social Sciences*, 4(1), 105-116.
- Easton, S., & Van Laar, D. L. (2012). *User manual of the work-related quality of life scale (WRQoL)*. UK: Portsmouth: University of Portsmouth.
- Edwards, J., Van Laar, D. L., Easton, S., & Kinman, G. (2009). The work-related quality of life (WRQoL) scale for higher education employees. *Quality in Higher Education*, 15(3), 207-219.
- Edwards, J. A., Webster, S., Van Laar, D. L., & Easton, S. (2008). Psychometric analysis of the health & safety executive management standards work-related stress indicator tool. *Work & Stress*, 22(2), 96-107.
- Elizur, D., & Shye, S. (1990). Quality of work life and its relation to quality of life. *Applied Psychology: An International Review*, 39(3), 275-291.
- Ellis, N., & Pompli, A. (2002). *Quality of working life for nurses*. Canberra: Commonwealth Dept of Health and Ageing.
- Felce, D., & Perry, J. (1995). Quality of life: Its definition and measurement. *Research in Developmental Disabilities*, 16(1), 51-74.
- Freeborn, D. K. (2001). Satisfaction, commitment, and psychological well-being among HMO physicians. *West J. Med.*, 174(1), 13-18.
- George, J. M., & Brief, A. P. (1990). The economic instrumentality of work: An examination of the moderating effects of financial requirements and sex on the pay-life satisfaction relationship. *Journal of Vocational Behavior*, 37(3), 357-368.
- Kavanagh, M. J., & Halpern, L. (1977). The impact of job level and sex differences on the relationship between life and job satisfaction. *Academy of Management Journal*, 20, 66-73.
- Gershon, R., Barocas, B., Canton, A., Li, X., & Vlahov, D. (2009). Mental, physical, and behavioral outcomes associated with perceived work stress in police officers. *Criminal Justice and Behavior*, 36(3), 275-289.
- Goldberg, D. (1978). General health questionnaire. In J. Weinman, & S. C. Wright (Eds.), *Measures in health psychology: A user's portfolio*. Windsor: NFER-NELSON.
- Hackman, J. R., & Oldham, G. R. (1974). *The job diagnostic survey*. New Haven: Yale University.
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16, 250-279.
- Haire, H., Ghiselli, E. E., & Porter, L. W. (1966). *Managerial thinking: An international study*. New York, N.Y.: Wiley.
- Herzberg, F. (1966). *Work and the nature of man*. Cleveland: World Press.
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Beverly Hills, C.A.: Sage.
- Hofstede, G. (1984). The cultural relativity of the quality of life concept. *Academy of Management Review*, 9(3), 389-398.
- Hofstede, G. (2001). *Cultures consequences: Comparing values, behaviors, institutions and organizations across nations* (2nd ed.). Thousand Oaks, C.A: Sage.
- Hofstede, G. (1972). The colors of collars. *Columbia Journal of World Business*, 7(5), 72-80.
- Jex, S. M., & Spector, P. F. (1996). The impact of negative affectivity on stressor-strain relations: A replication and extension. *Work & Stress*, 10, 36-45.
- Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. (2001). The job satisfaction—Job performance relationship: A qualitative and quantitative review. *Psychological Bulletin*, 127, 376-407.
- Kandasamy, I., & Ancheri, S. (2009). Hotel employees' expectations of QWL: A qualitative study. *International Journal of Hospitality Management*, 28, 328-337.
- Katzell, R. A. (1983). Improving quality of work life. *American Psychologist*, 38, 126.
- Kavanagh, M. J., & Halpern, M. (1977). The impact of job level and sex differences on the relationship between life and job satisfaction. *Academy of Management Journal*, 20(1), 66-73.
- Kerr, B. A. (1985). Smart girls, gifted women: Special guidance concerns. *Roepers Review*, 8(1), 30-33.
- Kinman, G. (1996). *Occupational stress and health among lecturers working in further and higher education*. London: National Association of Teachers in Further and Higher Education.

- Kornhauser, A. (1965). *Mental health of the industrial worker*. New York: Wiley.
- Lambert, S. J. (1990). Process linking work and family: A critical review and research agenda. *Human Relations*, 43, 239-257.
- Lin, S., Chaiear, N., Khiewyoo, J., Wu, B., & Johns, N. (2013). Preliminary psychometric properties of the chinese version of the work-related quality of life scale-2 in the nursing profession. *Safety and Health*, 4(1), 37-45.
- Lambert, S. J. (1990). Processes linking work and family: A critical review and research agenda. *Human Relations*, 43(3), 239-257.
- Lau, R. S. M., & Bruce, E. M. (1998). A win-win paradigm for quality of work life and business performance. *Human Resource Development Quarterly*, 9(3), 211-226.
- Lawler, E., & Porter, L. (1966). Managers pay and their satisfaction with their pay. *Personnel Psychology*, 19, 363-373.
- Leigh, J. P., Kravitz, R. L., Schembri, M., Samuels, S. J., & Mobley, S. (2002). Physician career satisfaction across specialties. *Archives of Internal Medicine*, 162(14), 1577-1584.
- Limm, H., Gündel, H., Heinmüller, M., Marten-Mittag, B., Nater, U. M., Siegrist, J., & Angerer, P. (2011). Stress management interventions in the workplace improve stress reactivity: A randomised controlled trial. *Occupational and Environmental Medicine*, 68(2), 113-126.
- Lin, S., Chaiear, N., Khiewyoo, J., Wu, B., & Johns, N. (2013). Preliminary psychometric properties of the chinese version of the work-related quality of life scale-2 in the nursing profession. *Safety and Health*, 4(1), 37-45.
- Loscocco, K. A., & Roschelle, A. N. (1991). Influences on the quality of work and non-work life: Two decades in review. *Journal of Vocational Behavior*, 39, 182-225.
- Martel, J. P., & Dupuis, G. (2006). Quality of work-life: Theoretical and methodological problems, and presentation of a new model and measuring instrument. *Social Indicators Research*, 77, 333-368.
- Martin, T. N., & Schermerhorn, J. R. (1983). Work and nonwork influences on health. *Academy of Management Review*, 8, 650-659.
- Maslow, A. H. (1954). *Motivation and personality*. New York: Harper.
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 70-96.
- Mayo, E. (1960). *The human problems of an industrial civilisation*. New York: Viking Press.
- Mirvis, P. H., & Lawler, E. E. (1984). Accounting for the quality of work life. *Journal of Occupational Behaviour*, 5, 197-212.
- Mullarkey, S., Wall, T., Warr, P., Clegg, C., & Stride, C. (1999). *Measures of job satisfaction, mental health and job-related well-being*. Sheffield: Institute of Work Psychology.
- Ng, S. I., Lee, J. A., & Soutar, G. N. (2007). Are Hofstede's and Schwartz's value frameworks congruent? *International Marketing Review*, 24(4), 164-180.
- Parkes, K. R. (1991). Locus of control as moderator: An explanation for additive versus interactive findings in the demand-discretion model of work stress. *British Journal of Psychology*, 82, 291-312.
- Peters, K., & Carlson, J. (1999) Worksite stress management with high risk maintenance workers: A controlled study. *International Journal of Stress Management*, 6(1), 21-44.
- Ramstad, E. (2007). Unresolved couple?: The relationship between performance and quality of working life and the role of development approach. In J. Pelletier (Ed.), *Intervention practices in firms* (pp. 93-107). Lyon (France): ANACT.
- Rousseau, D. M. (1978). Relationship of work to non-work. *Journal of Applied Psychology*, 63, 513-517.
- Schmitt, N., & Mellon, P. M. (1980). Life and job satisfaction: Is the job central? *Journal of Vocational Behavior*, 16(1), 51-57.
- Schmitt, N., & Bedeian, A. G. (1982). A comparison of LISREL and two-stage least squares analysis of a hypothesized life-job satisfaction reciprocal relationship. *The Journal of Applied Psychology*, 67, 806-817.
- Seymour, L., & Grove, B. (2005). *Workplace interventions for people with common mental health problems: Evidence review and recommendations*. London: British Occupational Health Research Foundation.
- Sirgy, M. J., Efraty, D., Siegel, P., & Lee, D. (2001). A new measure of quality of work life (QoWL) based on need satisfaction and spillover theories. *Social Indicators Research*, 55, 241-302.
- Souza-Poza, A., & Souza-Poza, A. A. (2000). Well-being at work: A cross-sectional study of the levels and determinants of job satisfaction. *Journal of Socio-Economics*, 29, 517-538.
- Spector, P. E. (1986). Perceived control by employees: Meta-analysis of studies concerning autonomy and participation at work. *Human Relations*, 39, 1005-1016.
- Spector, P. E. (1988). Development of the work locus of control scale. *Journal of Occupational Psychology*, 61, 335-340.

- Spector, P. E. (2002). Employee control and occupational stress. *Current Directions in Psychological Science, 11*(4), 133-136.
- Staines, G. L. (1980). Spillover versus compensation: A review of the literature on the relationship between work and nonwork. *Human Relations, 33*, 111-129.
- Tasho, W., Jordan, J., & Robertson, I. (2005). Case study: Establishing the business case for investing in stress prevention activities and evaluating their impact on sickness absence levels. *HSE Research Report, 295*.
- Taylor, J. C., Cooper, C. L., & Mumford, E. (1979). *The quality of working life in Western and Eastern Europe*. ABP.
- Van Laar, D. L., Edwards, J., & Easton, S. (2007). The work-related quality of life scale for healthcare workers. *Journal of Advanced Nursing, 60*(3), 325-333.
- Warr, P., Cook, J., & Wall, T. (1979). Scales for the measurement of some work attitudes and aspects of psychological well being. *Journal of Occupational Psychology, 52*, 129-148.
- Wolff, C. (2009). Measuring wellbeing brings rewards at the University of Huddersfield. *IRS Employment Review, 916*.
- Worrall, L., & Cooper, C. L. (2006). *The quality of working life: Managers' health and well-being* (executive report). Chartered Management Institute.