

Highlight, copy & paste to cite:

Hayman, J. (2005). Psychometric Assessment of an Instrument Designed to Measure Work Life Balance, *Research and Practice in Human Resource Management*, 13(1), 85-91.

Psychometric Assessment of an Instrument Designed to Measure Work Life Balance

Jeremy Hayman

ABSTRACT

Work family conflict and work life balance issues have received a great deal of attention from researchers and contemporary employers. Nevertheless, there is a lack of reported scales for assessing the construct of work life balance. This study evaluated a 15 item scale for assessing the construct of work life balance adapted from an instrument reported by Fisher-McAuley, Stanton, Jolton and Gavin (2003) with data obtained from 61 human resource administrators of a large university in Western Australia. Factor analysis confirmed a robust three factor solution. This paper reports and validates a new measure to capture employee perceptions of work life balance while discussing implications for human resource practitioners in the Asia Pacific region.

INTRODUCTION

Many changes in the workplace and in employee demographics in the past decade have led to an increased concern for the boundary between employee work and non work lives (Hochschild 1997). For example, more women are joining the workforce and dual career couples are becoming increasingly common (Moorhead, Steele, Alexander, Stephen & Duffin 1997). In addition, now more employees telecommute (work from home), or bring work home, thus blurring the boundaries between work and non work (Hill, Miller, Weiner & Colihan 1998). These changes in the workplace are not confined to Western societies as many Asian countries have experienced similar trends (Khatri & Budhwar 2000, OECD 2004). Indeed, organisations have responded to these trends by implementing flexible work programs to help employees balance their work and non work lives.

Work family conflict has been widely reported in contemporary organisational behaviour literature (e.g., Frone, Russell & Copper 1992, Williams & Alliger 1994). Although this research increased understanding of how the concepts of work and non work conflict were related, a change in the traditional roles of men and women has required reconceptualisation of employees' work and non work lives. Recently, a broader term has emerged in the literature to refer to work/non work conflict: work life balance which offers a more inclusive approach to the study of work/non work conflict compared to work family conflict. Consequently, there has been a great deal of interest as demonstrated by the wealth of previous studies (Hill et al. 1998, Saltzstein, Ting & Saltzstein 2001, Felstead, Jewson, Phizacklea & Walters 2002). These endeavours attempted to provide a conceptual definition, but the work has not led to a consensus as to how to measure the

Volume 13:

Issue 1

Editorial

Announcements

Regular
Papers

Research
Notes

Reviews

construct. A notable exception in the literature was a study by Fisher-McAuley, Stanton, Jolton and Gavin (2003). The researchers examined the antecedents and outcomes of work life balance among fitness trainers and managers from the United States and Canada with a 19 item instrument designed to capture employee perceptions of work life balance.

The purpose of this paper is to evaluate a 15 item scale for assessing the construct of work life balance. This research note adds to an expanding body of work life literature by reporting data collected from administrative, office based employees in an Australian work setting. An evaluation of an instrument to assess work life balance among administrative employees is warranted and may provide human resource practitioners and researchers with a useful tool for assessing this much publicised construct. The validation and reliability assessments, together with a profile of the study subjects are provided. This lays the groundwork for discussion in terms of human resource management implications, particularly for managers of office based professional and administrative employees.

METHOD

Subjects and Site

The subject data was provided by 61 administrative and professional employees from a large university in Western Australia. Specifically, the study was administered to employees in two divisions of the university: Human Resources/Staff Services and Financial Services. Almost 71 per cent of the respondents performed administrative/ clerical functions, a further 18 per cent were supervisors, and the remainder performed professional or technical functions. Few of the respondents were part time or casual employees (5%), with almost 60 per cent having been employed for more than five years. Employees utilised a variety of flexible work schedules including flexitime, flexiplace (working from home), and job sharing arrangements. A large group of sample (43%) operated on more traditional standard fixed hour schedules (9am-5pm or similar). Nearly two thirds (64.7) of the study respondents were born in Australia. A final feature of the sample is that all age groups were well represented. Table 1 summarises the demographic profile of the respondents.

Table 1
Demographics % (n=61)

Gender	Education Background	Age (in years)	Job Function	Work Schedule	Work Status
Female	70.5 Bachelor Degree	44.3 Under 30	24.6 Admin/Clerical	70.5 Flexitime	54.1 Full-time 95.1
Male	29.5 Professional Qual	9.7 30-39	26.2 Supervisor	18.0 Flexiplace	16.4 Part-time 4.9
		40-49	26.2 Professional/Technical	11.5 Job Share	3.3
		Above 50	23.0	Standard Fixed Hours	42.6

Note. Work schedule % total 116.4 as employees may operate on more than one schedule (e.g., flexitime and flexiplace).

Measure

Work life balance was measured with a 15 item scale adapted from an instrument reported by Fisher-McAuley, et al. (2003). The original scale consisted of 19 items designed to assess three dimensions of work life balance: work interference with personal life (WIPL), personal life interference with work (PLIW), work/personal life enhancement (WPLE). In the study reported in this paper the respondents were asked to indicate the frequency with which they have felt in a

particular way during the past three months using a seven point time related scale (e.g., 1=Not at all, 4=Sometimes, and 7=All the time). Previous work family researchers (e.g., Macdermid, Barnett, Crosby, Greenhaus, Koblenz, Marks, Perry-Jenkins, Voydanoff, Wethington & Sabbatini-Bunch 2000) have recommended the use of a time based stem so that all respondents have the same time frame of reference for responding to the items. Indeed, it has been found from a confirmatory factor analysis with the data of prior research using the scale, that a three dimensional model fits the data better than a four dimensional model. Moreover, results of a higher order factor analysis provided empirical evidence that the three dimensions were indicators of a single latent construct (Fisher-McAuley, et al. 2003). Higher means indicate that respondents report having experienced that situation more frequently. In most cases, items with higher means are purported to indicate lower levels of work life balance. Item six on the WIPL sub scale was reverse scored. The WPLE sub scale is worded positively and higher means indicate higher levels of perceived work life balance.

Procedure

Study data was obtained by a questionnaire. Prior to the administration of the survey instrument considerable preparatory work was performed. A proposal with an expression of interest to undertake research at the university and a copy of the questionnaire were sent to the Director, Staff Services. Following this, issues regarding distribution and respondent confidentiality were discussed during two meetings with the Director. The university agreed to participate in the research in order to obtain feedback on the research findings. Further refinements to the work life balance instrument were undertaken before administering the survey to the respondents. This included replacing American terminology with more familiar Australian language, such as using the term ' holiday' instead of ' vacation' . The measure was reduced by four items to prevent the questionnaire from becoming too lengthy and to enhance the response rate (Fisher 2001). One week prior to the distributing the questionnaire employees were emailed to explain the nature of the research and to outline collection procedures. In total 78 questionnaires were distributed to individual mail boxes by support staff from the department and staff were given one week to complete the questionnaires. A covering letter accompanied the questionnaire to assure staff of their anonymity and that their participation was voluntary. Completed questionnaires were returned to a designated collection box or returned directly to the researcher in the envelopes provided. A total of 61 completed questionnaires were returned, indicating an overall response rate of 78 per cent. This high response rate was probably achieved because the university is conscious of exposing staff to excessive in house surveys and because of the endorsement provided by senior management.

Analysis

An exploratory factor analysis was undertaken with SPSS version 10 to examine the construct validities of the 15 work life balance scale items. The exploratory factor analysis procedure employed principle components method for extraction, with the varimax option which converged in six rotations, and factors with eigenvalues greater than one were retained (Hair, Anderson, Tatham & Black 1998). Once the dimensionalities of the instrument were verified, the internal consistencies of the scales were checked with reliability analysis.

RESULTS

Table 2
Factor Analyses (N=61)

	Factors		
	1	2	3
Personal life suffers because of work	.897	.226	-.077
Job makes personal life difficult	.866	.125	-.137

Neglect personal needs because of work	.833	.056	.036
Put personal life on hold for work	.809	.264	-.226
Miss personal activities because of work	.774	.065	-.036
Struggle to juggle work and non-work	.756	.330	.113
Happy with the amount of time for non-work activities (reversed)	.700	.182	-.211
Personal life drains me of energy for work	.155	.874	-.038
Too tired to be effective at work	.229	.854	.001
My work suffers because of my personal life	.207	.792	.037
Hard to work because of personal matters	.157	.633	-.267
Personal life gives me energy for my job	.132	-.173	.864
Job gives me energy to pursue personal activities	-.369	.128	.674
Better mood at work because of personal life	.088	-.505	.652
Better mood because of my job	-.425	.198	.578
Eigenvalue	5.018	3.147	2.169
Percentage of variance explained	33.456	20.981	14.462
Cumulative percentage of variance explained	33.456	54.437	68.899

Table 2 shows factor loadings for each item and also the eigenvalues, percentage of variance explained and the cumulative percentages of the variance explained. The factor analysis of the items confirmed three dimensions to the work life balance scale. These are operationalised as: factor 1 - work interference with personal life (WIPL), factor 2 - personal life interference with work (PLIW), and factor 3 - work/personal life enhancement (WPLE). The item 'better mood because of my job' had a lower factor loading than desired. However, this item was subsequently retained as it contributed positively to the reliability assessment. Overall, Table 2 demonstrates a robust three factor solution.

Having verified the dimensionality of the scale, the constructs were assessed for reliability. The reliability for the work life balance scale was estimated using Cronbach alpha coefficient (Cronbach 1951). Generally, items were retained in the scale when the item to total correlation was at least .35, and a coefficient alpha score in the order of .70 was obtained. Although WPLE had a Cronbach alpha of .69, elimination of items did not improve the reliability of the construct. As the reliability value was near the acceptable threshold of .70, and the four items that made up the construct had item to total correlation of above .35, all items were retained. The final Cronbach alpha values for the three factors include .93 for WIPL, .85 for PLIW, and .69 for WPLE. Acceptable reliability estimates and factor loading patterns for the work life balance items supported a three factor solution. The final result was a 15 item work life balance scale.

DISCUSSION

An implication of this study involves the potential usefulness of the scale in assessing perceptions of work life balance among administrative employees. The more inclusive wording of personal life compared to family provides the opportunity to measure the interface between work and non work regardless of employee marital or family status. This broader approach is useful for organisations to assess the non work domain of employees, as family may not be relevant to all employees. Unlike work family measures that assess conflict or interference (e.g., Netemeyer, et al. 1996), the scale in the present study also measured positive spill over or enhancement. Results of this study indicate support for measuring positive as well as negative aspects of the work personal life interface. Indeed, the work life balance instrument has considerable potential in providing organisations with employee perceptions of work and personal life balance, which can be incorporated into progressive human resource practices.

A further implication of the study is the scale could be used to evaluate the effectiveness of work

life balance programs provided by organisations. Research from North America has shown that organisations with a greater concern for employee work life strategies find it easier to attract and retain valued employees (e.g., Bailyn 1993). Work life balance practices are gaining more frequent attention in parts of the Asia Pacific such as China (Khatri & Budhwar 2000), Australia (Moorehead, et al. 1997), New Zealand (Haar & Spell 2003) and Japan (Evans 2000). Hence, an accurate measure to help evaluate the effectiveness of work life balance programs will greatly benefit human resource management practitioners and researchers alike.

CONCLUSION

This study sought to evaluate the worth of an instrument developed for assessing employee work life balance within an administrative work setting. The instrument was found to have acceptable validity and reliability, indicating the instrument has potential for providing managers with a useful tool for determining work life balance perceptions among employees. Therefore, this research adds to the current literature by providing better understanding of a more inclusive measure of the interface between work and non work. A better understanding of measures for attaining best practice has direct consequences for HRM. With increased concern by employees for the boundary between their work and non work lives, the provision of effective work life initiatives is fast becoming a priority for organisations and HRM practitioners throughout the modern world.

AUTHOR

Jeremy Hayman is a sessional lecturer in Organisational Behaviour at Curtin University of Technology, Western Australia. He is currently a full time Doctoral student studying work life balance among professional and administrative workers operating on flexible work arrangements. His research interests include work life balance, employee autonomy, and strategic HRM issues.

E-mail: Jeremy.Hayman@cbs.curtin.edu.au

REFERENCES

- Bailyn, L. (1993). *Breaking the mold: Women, men, and time in the corporate world*. New York: The Free Press.
- Cronbach, L.J. (1951). Coefficient alpha and internal structure tests. *Psychometrika*, 16(2), 297-334.
- Evans, J. (2000). *Family-friendly' firms - an international view*. Oxford: The Family Policy Studies Centre.
- Felstead, A., Jewson, N., Phizacklea, A., & Walters, S. (2002). Opportunities to work at home in the context of work life balance. *Human Resource Management Journal - London*, 12(1), 54-76.
- Fisher, G. (2001). Work/Personal Life Balance: A construct development study. *Dissertation Abstracts International*. 002119, August 2001.
- Fisher-McAuley, G., Stanton, J., Jolton, J., & Gavin, J. (2003). Modelling the relationship between work life balance and organisational outcomes. Paper presented at the *Annual Conference of the Society for Industrial-Organisational Psychology*. Orlando, April 12, 2003, 1-26.
- Frone, M.R., Russell, M., & Cooper, M.L. (1992). Antecedents and outcomes of work family conflict: Testing a model of the work family interface. *Journal of Applied Psychology*, 77(1), 65-78.
- Haar, J., & Spell, C.S. (2003). Where is the Justice? Examining work family backlash in New Zealand: The potential for employee resentment. *New Zealand Journal of Industrial Relations*, 28(1), 59-74.
- Hair, J.F., Anderson, R.E., Tatham, R.L., & Black, W.C. (1998). *Multivariate Data Analysis*. (5th ed.). New Jersey: Prentice-Hall.

- Hill, J.E., Miller, B.C., Weiner, S.P., & Coleman, J. (1998). Influences of the virtual office on aspects of work and work/life balance. *Personnel Psychology*, 51(3) 667-683.
- Hochschild, A.R. (1997). *The time bind: When work becomes home and home becomes work*. New York: Metropolitan Books.
- Khatri, N., & Budhwar, P.S. (2000). A study of strategic HR issues in an Asian context. *Personal Review*, 21(1/2), 166-168.
- MacDermid, S.M., Barnett, R., Crosby, F., Greenhaus, J., Koblenz, M., Marks, S., Perry-Jenkins, M., Voydanoff, P., Wethington, E., & Sabbatini-Bunch, L. The measurement of work life tension: Recommendations of a virtual think tank. [on-line]. Available: [2002 August]. http://www.bc.edu/bc_org/avp/csom/cwf/thinktanks/worklife_tension_vtt.pdf.
- Moorhead, A., Steele, M., Alexander, M., Stephen, K., & Duffin, L. (1997). *Changes at work: The 1995 Australian workplace and industrial relations survey*. Melbourne: Longman.
- OECD, (2004). Babies and bosses: OECD recommendations to help families balance work and family life. [On-line]. Available: <http://www.oecd.org>. [2004, October 18th].
- Saltzstein, A.L., Ting, Y., & Saltzstein, G. (2001). Work family balance and job Satisfaction: The impact of family-friendly policies on attitudes of government employees. *Public Administrative Review*, 61(4), 452-467.
- Williams, K.J., & Alliger, G.M. (1994). Role stressors, mood spillover, and perceptions of work family conflict in employed parents. *Academy of Management Journal*, 37(4), 837-868.