

Assessment of Quality of Life of Pharmaceutical Employee by Measuring Work-Life Balance

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Abstract

Quality of life is an analytic element with having lots of significance in employee's life. A high quality of life is essential for an organization to continue to attract and keep employee. This study aimed to find out the factors that have an impact and impact of quality of work life and work health life balance of pharmaceutical employees. This study also will identify the relationships between the factors of quality of life with Work-Life balance. The data were obtained from 135 pharmaceutical employees by using Krejcie and Morgan Sampling Method. According to Krejcie and Morgan sampling method, for 200 people, 135 sample sizes are enough. For the data analysis, explanatory factor analysis and Pearson Correlation were conducted by using the SAS software. The results of this study conclude that the aspects of quality of life are cooperation and facilities, training and development, Facilities and Work Environment.

Keywords: Quality of life; Krejcie and Morgan sampling method; Exploratory factor analysis

1. Introduction

In general, Quality of life (QoL) is the welfare of individuals and societies, indicate positive and negative attribute of life. In another word, it comprises the expectation of an individual and society for a good life which are guided by the goals, values and socio-culture. Quality of life is usually associated with an optimistic sense of value such as success, wealth, happiness, health and satisfaction. QoL is an element associated with job and life fulfilment. When used in a work-related strategy, QoL repeatedly refers to the time and potentiality to do the thing you enjoy.

The truth of working lives today is that representatives continuously attempt to juggle work and life. Job stress in many professions was widely associated with adverse effects on the psychological and physical wellbeing of workers. Job pressure is a serious threat to the QoL workers. Mosadeghrad et al. (2011) states workplace pressure has a big impact on the health of an individual. Job stress is a significant threat to employees' quality of work (QWL) and could lead to hostility, aggression, absenteeism, turnover, and reduced productivity. Therefore, job stress is a high emotional cost for the well-being of employees and a considerable financial burden on organizational performance (Skakon et al., 2010).

Next, Bragard, Dupuis, & Fleet (2015) discussed the Quality of Work Life (QWL) is considered to be a subset of quality of life that reflects the interaction between workers and the overall environment in which they work, taking into account the human dimension. QWL is not based on any hypothesis or any procedure but it is concerned with the overall

climate of work, the influence of work on people and the organizational value. The basic purpose is to change the work environment, which will lead towards a better QWL and eventually to an improved QoL in the community/society. Thus, there is a need to examine the Quality of Life by measuring Work-Life balance. The aim of this study is to evaluate QoL among pharmaceutical employees.

2. Literature Review

Quality of Life (QoL)

The Quality of Life Group (QOL) of the World Health Organization describes QOL as 'individual's perception of their role in lifestyles in the context of the way of life and value systems in which they live and in relation to their goals, expectations, standards and concerns. Similarly, one can define QOL as the satisfaction of people of different dimensions which includes material, education, security, physical and dwelling environment that affected by their grasp on what they refer as ideal life. Therefore, the responsibility of policy makers and practitioners can provide opportunities for people to be able to meet their desired well-being.

Clark (2000) reported that Quality of Life (QoL) is a person that is significantly affected by his/her social status. QoL is one of the greatest challenges to reduce the gap between different groups and society. Generally, quality of life has been improved positively by improving the environment including physical and environmental environments, education, health, age, community, safety as well as economic growth (Yassin et al, 2012). Finally, Quality of life (QoL) of person is firmly recognized with the QoL of these rounds them, such as partners or parents (Rees et al., 2001).

Quality of Work Life (QWL)

According to J. Richard and J. Loy, "QWL is the degree to which members of a work organization are able to satisfy important personal needs through their experiences in the organization. Quality of work life endeavors are efficient endeavors made by an association to allow its representatives a more prominent opportunity to influence the way in which they do their employments and the commitments they make to the in general viability of their association. Work is an important portion of our everyday life. On a normal we spend around twelve hours per day daily in the workplace, that is one third of our entire life. So, it does impact the generally quality of our life.

Relationship between QoL and QWL

Quality of life phenomena explored in early studies included job satisfaction (measured by employee turnover, absenteeism, or attitude surveys), organizational climate and the learning of new tasks. Work-life balance portrays the when, where, and how people work, driving them to be able to appreciate an ideal quality of life. Work-life balance is accomplished when an individual's right to a satisfied life interior and exterior paid work is

acknowledged and regarded as the standard, to the common good thing about the person, commerce, and society. It is very true to say that high degree of QWL leads to QoL.

3. Methodology

Research Design

After identifying the research objective clearly, the study begins by constructing the questionnaire. To make sure the questionnaires to be within the scope of study, we did some research by studying past article related to work life balance. We also interviewed some of the employee at the pharmaceutical company to gain more knowledge on their perception of work life balance in the company.

Once done developing our questionnaire, we perform content validity by getting the opinion from few experts to validate the items. Content validity is important because it help to see if a test covers the full range of behaviours that should be measured by the construct. The next stage of the study is to measure the reliability of the test using Cronbach alpha. Then, we will be using explanatory factor analysis (EFA) to reduce number of variables and to measure the internal consistency between the variables. Finally, multiple linear regression (MLR) will be used to identify the relationship of quality of life and work life balance.

Data Collection

This study mainly focuses to identify the employer's quality of life related to work life balance at a Pharmaceutical company in Malaysia. This pharmaceutical company is origin from Switzerland and in Malaysia this company is shared service based. This company main role is to provide support to all the user in Asia region. The total number of employees in this Pharmaceutical Company is 200 people and the position of the employee start from executive to deputy general manager. According to Krejcie and Morgan sampling method, for 200 people, 135 sample size is enough. By using google form, the questionnaire has been distributed to 135 respondents to collect the data for this study. We used Google form because it is environment friendly and it allows us to collect information efficiently and easily.

Design of questionnaire

For this study, we designed the questionnaire with two section which is Section A and Section B. Section A was represent demographic questions while section B represented Quality of life related to work life balance questions. In Section A, we used multiple choice question and in Section B, we used interval scale question. For the interval scale, semantic 5 point from extremely disagree to extremely agree has been used. For the aspect that will be measured, this questionnaire will be measuring the relation and cooperation, work environment, training and development and facilities. Before distributing the question, we perform content validation by asking 3 experts to validate our questionnaire. For content validation, we user ordinal scale, consist of not relevant, somewhat relevant, quite relevant and high relevant.

Data Analysis

For this study, we used few method to analysis the data. First, we used Descriptive Analysis to provide a summary of the entire population or a sample. Then we performed reliability analysis using Cronbach's alpha to see the closeness of the item as a group in a data set. Exploratory factor analysis, has been used as well to achieve our objective which is to determine the factors that contribute to the quality of life of pharmaceutical employee by measuring work-life balance. In order to determine the suitability of the EFA, the data is then checked by Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy, and Bartlett's Test of Sphericity. The KMO index, is suggested to have above 0.50. However, the Bartlett's Test of Sphericity considered acceptable for p- value less than 0.05 (Hair et al., 1995).

To achieve our second objective, we used Pearson Correlation to determine the degree of direct relationship between the variables. In this study, its measure the degree of relationship between the Satisfaction Quality of Life in Work life (dependent variable) towards independent variables (i.e., work environment, relationship and cooperation, training and development, and facilities).

4. Results and Findings

Table 1: List of selective code for all variable

No	Question
Q1	My company's work environment is good and highly motivating.
Q2	Working conditions in my company are good.
Q3	It's hard to take time off to take care of personal or family issues during our work.
Q4	My company provides sufficient opportunities to develop my own skills.
Q5	The company provides sufficient information to discharge my responsibilities
Q6	I have a lot of job empowerment to decide my own work style and pace.
Q7	Cooperation exists among all the departments to fulfil the target
Q8	I give the opportunity to make comments and suggestions about my performance.
Q9	I am proud to be working for my present Company
Q10	I am involved in the making of decisions that affect our work.
Q11	I am discriminated against in my work because of my gender
Q12	The wage policies of my company are good
Q13	Every new change is communicated by the company.
Q14	There is a good relationship with my colleagues.
Q15	There is a strong sense of belonging in my organization.
Q16	Due to the demands made by my job, I am unable to attend to my personal work.
Q17	Managers and employees have a very good relationship.
Q18	The relationship with my immediate superior is very friendly.
Q19	My subordinates will give me good support.
Q20	Training programs in our company allow workers to achieve the skills needed to do a job effectively.
Q21	Training programs aim to improve the interpersonal relationship between employees
Q22	My company provides sufficient opportunities for competently performing my work.
Q23	I feel that the training programs should be conducted frequently
Q24	Fringe benefits provided are good
Q25	Company provides the social security benefits like EPF/Medical Reimbursement and so on.
Q26	Good transport facilities are provided by the Company.
Q27	The company's security measures are good,
Q28	Our company provides good welfare activities

Table 2: The reliability statistic for all items

Cronbach Coefficient Alpha	
Variables	Alpha
Raw	0.892605
Standardized	0.915424

Table 3: KMO and Bartlett's test for all items

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.861
Bartlett's Test of Sphericity	Approx. Chi-Square	3076.474
	df	378
	Sig.	.000

Based on Table 2, Cronbach's alpha value (0.892) for 28 items has exceed 0.60. Hence, this indicates that the questionnaires are reliable and can be used for the exploratory factor analysis. Table illustrates that the KMO value is 0.861, which greater 0.60 and the value of Bartlett's test shows the significant value since the p-value is lower than 0.05, which represent the data is acceptable for the factor analysis.

Cronbach's alpha value (0.902) exceed 0.60. Hence, this indicates that the questionnaires are reliable to proceed with the analysis. Next, Table 3 illustrates that the KMO value of 0.872, which greater than 0.6 and the Bartlett's test shows the significant value since the p-value is lower than 0.05, which represent the data is acceptable for the factor analysis.

Table 4: Total variance explained

Eigenvalues	of	the	Correlation	Matrix:	Total
= 23 Average = 1					
	Eigenvalue	Difference	Proportion	Cumulative	
1	10.4798937	7.7628829	0.4556	0.4556	
2	2.7170108	0.9480709	0.1181	0.5738	
3	1.7689399	0.6682849	0.0769	0.6507	
4	1.1006551	0.2478676	0.0479	0.6985	

Principal component analysis (PCA) and orthogonal varimax rotation is used to determine the number of factor this data explain. The eigenvalues with value greater than 1 has been retained and table 4 shows that the four factors that has been retained with cumulative variance of 69.85%.

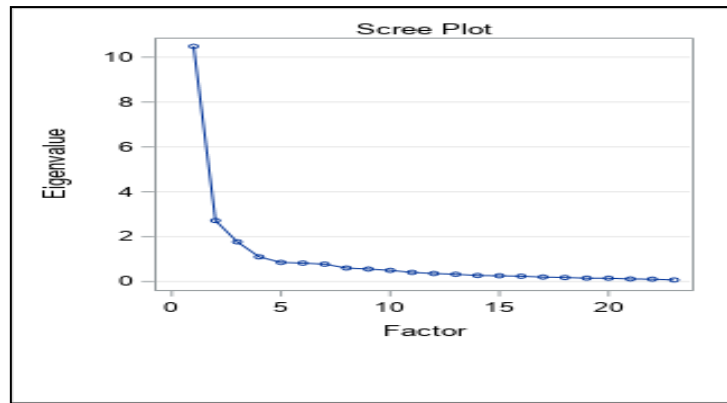


Figure 2: QoL scree plot

Figure 2 demonstrates the scree plot graph with the eigenvalue on vertical axis against the component/ factor number on the horizontal axis. The first fourth components show the values in the table is immediately above. While the next factor shows almost the flat until the last factor as the eigenvalue decrease, which is mean that the successive factors are consider for smaller amount of total variance explained.

Table 5: Rotated factor pattern

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4
My company's work environment is good and highly motivating.	0.57771			
Working conditions in my company are good.	0.69805			
Cooperation exists among all the departments to fulfill the target	0.65825			
There is a good relationship with my colleagues.	0.80464			
There is a strong sense of belonging in my organization.	0.79799			
Managers and employees have a very good relationship.	0.81826			
The relationship with my immediate superior is very friendly.	0.74905			
My subordinates will give me good support.	0.83588			
Company provides the social security benefits like EPF/Medical Reimbursement and so on.	0.87752			
The company's security measures are good,	0.54003			
Our company provides good welfare activities	0.59645			
I am proud to be working for my present Company		0.60751		
Training programs in our company allow workers to achieve the skills needed to do a job effectively.		0.81687		
Training programs aim to improve the interpersonal relationship between employees		0.71503		

My company provides sufficient opportunities for competently performing my work.		0.73239		
I feel that the training programs should be conducted frequently		0.62266		
My company provides sufficient opportunities to develop my own skills.			0.52405	
The company provides sufficient information to discharge my responsibilities			0.82257	
I have a lot of job empowerment to decide my own work style and pace.			0.49895	
The wage policies of my company are good			0.73342	
Fringe benefits provided are good			0.75866	
I give the opportunity to make comments and suggestions about my performance.				0.67972
Every new change is communicated by the company.				0.75369

From the Table 5, there are four factors that can be obtained from the factor rotation according to the factor loading. The factor loading must at least greater than 0.4. Some researchers like Awang (2015) suggested that the factor loading should be greater 0.6 to ensure the factor will be reliable for the next analysis. Meanwhile, some researcher stated if sample sizes between 100 to 200, the average value between 0.5 and 0.6 is acceptable (MacCallum et al., 1999). Since this study, the sample size is 135 so it is acceptable if the value of factor loading is between 0.5 and 0.6.

Table 6: The reliability statistic for all factors

Variable	Cronbach's Alpha	N
Quality of Life (work life)	0.807	5
Cooperation & Facilities	0.945	11
Training & Development	0.860	5
Facilities	0.757	5
Work Environment	0.600	2

Table 7: Cronbach Alpha for 23 items

Cronbach Coefficient Alpha	
Variables	Alpha
Raw	0.935269
Standardized	0.940956

Table 8: KMO and Bartlett's test for 23 items after factor analysis

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.878
Bartlett's Test of Sphericity	Approx. Chi-Square	2474.129
	df	253
	Sig.	.000

From 28 items, 5 items have been eliminated after factor analysis because the factor loading of the item is less than 0.6 and not reliable for this analysis. All the 23 items that remained are tested for reliability. Table 6, Table 7 and Table 8 displays that the Cronbach's alpha and KMO for 23 items. The value of Cronbach's Alpha is 0.935269 while the KMO value is 0.878, which is greater 0.60 and the Bartlett's test shows the significant value since the p-value is less than 0.05, which represent the data is acceptable for the factor analysis.

Table 9: Pearson Correlation Coefficient

Pearson Correlation Coefficients, N = 135 Prob > r under H0: Rho=0					
	QOL	CF	TD	FAC	WE
QOL	1.00000	0.17283	0.17904	0.01326	0.07310
QOL		0.0450	0.0377	0.8787	0.3995
CF	0.17283	1.00000	0.65509	0.52949	0.32185
CF	0.0450		<.0001	<.0001	0.0001
TD	0.17904	0.65509	1.00000	0.20741	0.34269
TD	0.0377	<.0001		0.0158	<.0001
FAC	0.01326	0.52949	0.20741	1.00000	0.37175
FAC	0.8787	<.0001	0.0158		<.0001
WE	0.07310	0.32185	0.34269	0.37175	1.00000
WE	0.3995	0.0001	<.0001	<.0001	

Table 9 shows the Pearson correlation coefficients values. The correlation between quality of life (QoL) and cooperation & facilities is 0.17283. Meanwhile the relationship between QoL and training & development is 0.17904. Next, for quality of life and facilities, the Pearson correlation value is 0.01326. Finally, the Pearson Correlation for the last factor is 0.07310. Since the p-value for all variable is less than 0.05, so the variables are significantly.

5. Conclusion

Work-Life Balance (WLB) has got a noteworthy consideration among issues in a working environment. This study was conducted to explore the current WLB status, and its' association with quality of life (QoL) among pharmaceutical employees. Four aspects of QoL, namely cooperation & facilities, training & development, facilities and work environment are identified as the factors that contribute to QoL of working employee. The very important determination of employees' work-life balance is training & development and facilities. Cooperation & work environment also contributes to Quality of life in work life, but they are not the main factor in work life. Furthermore, this study manages to

identify the relationship between factors in quality of life and work-life balance with life scale using Pearson correlation.

Based on Pearson correlation analysis it found that all the independent variables (Work Environment, Relationship and Cooperation, Training and Development, Facilities) have a positive relationship with dependent variable (Quality of Life in Work Life) even if it is a weak positive correlation. . Since the p-value for all variable is less than 0.05, so we can conclude that all the variables are significant.

Quality of life measurement is an important issue. Employees' recognition toward WLB was demonstrated to be related with QoL in all the spaces. By increasing the WLB, QoL increases. In the future, awareness of quality of life issues will be of increasing importance for all the employee.

References

- Awang, Z. (2015). Acceptable range for factor loading. Retrieved from: https://www.researchgate.net/post/What_is_the_acceptable_range_for_factor_loading_in_SEM/5551c50a6307d969458b45d7/citation/download.
- Bragard, I., Dupuis, G., & Fleet, R. (2015b). Quality of work life, burnout, and stress in emergency department physicians. *European Journal of Emergency Medicine, 22*(4), 227–234.
- Clark, N.M. (2000). Understanding individual and collective capacity to enhance quality of life. *Health Education and Behaviour, 27*(6), 669-707.
- Hair, J., Anderson, R.E., Tatham, R.L., & Black, W.C. (1995). *Multivariate data analysis*. 4th ed. New Jersey: Prentice-Hall Inc.
- MacCallum, R.C., Widaman, K.F., Zhang, S. and Hong, S. (1999) Sample size in factor analysis. *Psychological Methods, 4*(1), pp. 84–99.
- Mosadeghrad, A.M., Ferlie, E., & Rosenberg, D. (2011). A study of relationship between job stress, quality of working life and turnover intention among hospital employees. *Health Services Management Research, 24*(4), 170–181.
- Rees, J., O'Boyle, C., & MacDonagh, R. (2001). Quality of life: impact of chronic illness on the partner. *Journal of the Royal Society of Medicine, 94*(11), 563–566.
- Skakon, J., Nielsen, K., Borg, V., & Guzman, J. (2010). Are leaders' well-being, behaviours and style associated with the affective well-being of their employees? A systematic review of three decades of research. *Work & Stress, 24*(2), 107–139. Doi: 10.1080/02678373.2010.495262
- Yassin, S. M., Mohamed Shaffril, H. A., Hassan, M. S., Othman, M. S., Abu Samah, B., Abu Samah, A., & Ramli, S. A. (2012). The quality of life and human development index of community living along Pahang and Muar Rivers: A case of communities in Pekan, Bahau and Muar. *Journal of Sustainable Development, 5*(6), 90–103.