

Title: Assessment of life satisfaction among physiotherapists from selected hospitals in South-Western Nigeria

Authors: Adesola O. Ojoawo, PhD,¹ Joy C. Igudia, BMR,¹ Chidozie E. Mbada, PhD,¹ Ayodele, T. Onigbinde, PhD,¹ Rufus, A. Adedoyin, PhD¹

¹Department of Medical Rehabilitation, Faculty of Basic Medical Sciences, College of Health Sciences, Obafemi Awolowo University, Ile-Ife, Nigeria

Corresponding author: Adesola O. Ojoawo. Department of Medical Rehabilitation, Faculty of Basic Medical Sciences, College of Health Sciences, Obafemi Awolowo University, Ile-Ife, Nigeria.

E-mail: aoojoawo@yahoo.com.

Abstract

Background: Life satisfaction of an individual is strongly associated with factors such as income, educational status, family and occupation. There is a dearth of studies on job and life satisfaction for physiotherapists, especially in Nigeria.

Objective: This study assessed life satisfaction for physiotherapists from selected hospitals in South-Western Nigeria.

Methods: Seventy-six physiotherapists from seven purposively selected hospitals who met the inclusion criteria responded to the study. The Life Satisfaction Scale Questionnaire (LSSQ) was used as the research instrument. The LSSQ is a two-section questionnaire. Section A comprises 6 items designed to assess demographic information of the respondents while section B consists of 29 items, designed to measure the life satisfaction of the respondents. The questions on perceived level of satisfaction in different domains are on a 7-point scale ranging from 7 (strongly agree) to 1 (strongly disagree) for each question. Descriptive and inferential statistics were used to analyze the data.

Results: The response rate of the study was 80%. The mean total life satisfaction of the respondents was 151 – 180. There was a significant difference in total life satisfaction scores at $p < 0.001$ between the single and married respondents, first degree and postgraduates and between entry physiotherapist and senior physiotherapist. There was a significant association between level of life satisfaction and level of education, at $p < .05$. There also was a significant association, $p < 001$, between the level of life satisfaction and age, marital status and cadre.

Conclusion: Life satisfaction of clinical physiotherapists in South-Western Nigeria was high and is associated with marital status, postgraduate qualification and in a higher professional cadre. This implies that physiotherapists in South-Western Nigeria are in a condition that

promotes high productivity and efficiency and therefore physiotherapists are more likely to not migrate out of the country.

Key words: Life Satisfaction Scale; Physiotherapist; Cadre; Qualification; Hospitals

Introduction

Life satisfaction is an assessment of life as a whole based on how well personal goals match with personal achievements (Glass, 1999). It is a subjective and general estimation of physical, social and psychological aspects of an individual's current life situation (Budh and Osteraker, 2007). Satisfaction with one's life implies contentment with or acceptance of one's life circumstances or the fulfillment of one's wants and needs for one's life as a whole (Sousa and Lyubomirsky, 2001). Perception of life satisfaction is in part due to comparisons that people make between what they have, what they want, what they used to have and what others have (Jan and Masood, 2008).

Life satisfaction is a factor in the general construct of subjective well-being, which has at least three components, positive affective appraisal, negative affective appraisal, and life satisfaction (Diener and Biswas-Diener, 2002). Life satisfaction is distinguished from affective appraisal in that it is more cognitively driven than emotionally driven. Life satisfaction can be assessed specific to particular domains of life, which include family, income and educational status, national income and work (Diener and Biswas-Diener, 2002). A strong relationship exists between life satisfaction and work-family conflict of all non-work variables, while enhanced productivity, effectiveness in the work place, social resources and health are also linked to life satisfaction (Allen, et al., 2000).

Studies have been conducted to assess job and life satisfaction in doctors and nurses (Beutell, 2006, and Roth et al., 2003). Onigbinde (1996) conducted a study on job satisfaction of physiotherapists in Nigeria. However, job-related life satisfaction is a relative concept that changes according to purpose of working and is perceived differently with respect to the priorities of professionals and the work environment (Doğan et al., 2012). In order to search for a better life, physiotherapists from Nigeria have continued to take advantage of immigration programs in Canada, United State of America and United Kingdom, where there

is a high demand of highly skilled personnel from developing countries (Oyeyemi, 2001; Department of Citizenship, 2007; US Department of State, 2007). In a recent study conducted by Oyeyemi et al. (2012) among Nigerian physiotherapists, it was found that almost half of the 181 physiotherapists surveyed have plans to emigrate, but there was no relationship between job satisfaction level and desire to emigrate. The major reason to emigrate was to seek better or more realistic remuneration. The present study aimed to assess the life satisfaction of physiotherapists from selected hospitals in South-Western Nigeria and to determine the association between level of life satisfaction and cadre, work place and marital status.

Methods

Ethical approval for this study was obtained from the Ethics and Research Committee of the Obafemi Awolowo University Teaching Hospitals Complex (OAUTHC). Individual physiotherapists working in the selected hospitals were approached by one of the researchers describing the purpose of the study. A total number of 95 physiotherapists were contacted and 76 (80%) agreed to participate. The respondents consisted of 42 male and 34 female licensed clinical physiotherapists working at seven purposively selected state and federal government-owned hospitals in Osun and Oyo states, South-Western Nigeria, respectively. The selected hospitals, OAUTHC, Ile Ife, Wesley Guide Hospital Ilesha, Ladoke Akintola University of Technology Teaching Hospital Osogbo, General Hospitals Asubiaro, Osogbo, General Hospitals Ilesha, University College Hospitals Ibadan, General Hospital, Ring Road, Ibadan and General Hospital Yemetu, Ibadan, each had a physiotherapy department and a reasonable number of physiotherapists. .

The self-administered questionnaires were distributed to the consenting respondents face-to-face by one of the researchers, and the questionnaires were collected after completion on the same day.

Instrument

The Life Satisfaction Scale Questionnaire (LSSQ) was used and was adapted from Satisfaction with Life Scale (SWLS) (Diener, et al., 1995) that was used by Alao (2008). It was validated by Post et al. (2012) with Life Satisfaction Questionnaire (LSQ) and SWLS. The validity was found to be satisfactory ($r= 0.75, p= 0.001$). The LSSQ is a two-section questionnaire comprised of a total of 29 questions. Section A comprises 6 items designed to assess demographic information of the respondents, i.e., age, sex, highest educational qualification, marital status, cadre and religion. Section B consists of 29 items designed to measure the life satisfaction of the respondents. The questions on perceived level of satisfaction in different domains are on a 7-point scale ranging from 7 (strongly agree) to 1 (strongly disagree) for each question. One question (q) (q.1) asked about satisfaction in family life. Two questions (q. 2, 3) sought satisfaction in terms of the realization of dreams and aspirations, two questions (q. 4,5) asked for satisfaction with social life, five questions (q. 6,7,8,9,10) asked about the conditions of life, 3 questions (q. 11,12,13) rated their satisfaction with their health, five questions (q. 14,15,16,17,18) assessed job satisfaction, six questions (q. 19,20,21,22,23,24) asked about finances, and five questions (q. 25,26,27,28,29) assessed satisfaction in marital life. The questionnaire took between 5-10 minutes to answer and were collected immediately from the respondents. Respondents' scores range from 29-203, signifying 'extremely dissatisfied' to 'extremely satisfied'. A score range of 203-181 was classified as 'extremely satisfied', 151-180 as 'satisfied', 121-150 as 'slightly satisfied', 120 as 'neutral', 90-119 as 'slightly dissatisfied', 60-89 as 'dissatisfied', and 29-59 as 'extremely dissatisfied'.

Data Analyses

Descriptive statistics of mean, standard deviation and frequency distributions were used to summarize data. Inferential statistics of *t*-test, Chi-square and ANOVA were also used as appropriate at 0.05 alpha level. The Statistical Package for Social Sciences (SPSS) software (version 16) was used for the data analysis. Independent *t*-test was used to compare the level of life satisfaction between participants: male and female, singled and married, first degree and postgraduate holders, and working in state and federal hospitals. ANOVA was used to compare the level of life satisfaction of intern physiotherapists, physiotherapists, senior physiotherapists and managerial physiotherapists. Chi square test of association was used to assess the level of association between age, gender, marital status, educational qualification, cadre and work place. An alpha level of 0.05 was used as level of significance.

Results

The respondents' ages ranged between 21 to 50 years. Forty-two (54.3 %) of the respondents were male, 36 (47.4%) were in the 21 – 30 year age bracket, 41(54.0%) were married, and 20 (26.3%) had post graduate qualification. 30 (39.5%) of the respondents were entry physiotherapists while 15 (19.7%) were at management level. The socio-demographic characteristics of the respondents are presented in Table 1. Table 2 shows the level of agreement of the respondents to the different items on the LSSQ. The level of agreement of the respondents with the questionnaire items ranged from 54.0 to 100%. 'Peace of mind in the family' and 'meaningfulness of life' were the items on the LSSQ that the respondents all (100%) agreed with. On the other hand, 'If I could live my life over, I would change almost nothing (25.0%)' and 'I am satisfied with my level of income (23.7%),' respectively, were the items on the LSSQ that the respondents (100%) disagreed with.

Table 1: Socio-demographic characteristics of respondents

Variables	Frequency	Percentage
<i>Gender</i>		
Male	42	54.3
Female	34	44.7
<i>Age range (yrs)</i>		
21-30	36	47.4
31-40	29	38.2
41-50	11	14.5
<i>Marital status</i>		
Single	35	46.1
Married	41	53.9
<i>Educational qualification</i>		
BPT/BMR	56	73.7
Postgraduate (MSc or PhD)	20	26.3
<i>Cadre</i>		
Interns	22	28.9
PT	30	39.5
SPT	9	11.8
MPT	15	19.7
<i>Place of work</i>		
Federal Hospital	59	79.0
State Hospital	17	21.0

Key: BPT/ BMR= Bachelor of Physiotherapy/ Bachelor of Medical Rehabilitation. M.Sc = Master of Science. PhD = Doctor of Philosophy. PT = Physiotherapist, SPT = Senior Physiotherapist (Senior Physiotherapist and Principal Physiotherapist). MPT= Management Physiotherapist (Chief Physiotherapist and Assistant Director of Physiotherapy).

Table 2: Level of agreement of respondents to domain questions on life satisfaction (N=76)

S/N	Items	Agree		Neutral		Disagree	
		n	%	n	%	n	%
1	I have peace of mind in my family	76	100	-	-	-	-
2	My life is meaningful	76	100				
3	My dreams, desires, hope and aspirations are being realized	72	94.7	3	4.0	1	1.3
4	I am happy and satisfied with my social life	68	89.5	1	1.3	7	9.2
5	I have a good social relationship with my colleagues and other people around me	72	94.7	3	4.0	1	1.3
6	In most ways, my life is close to my ideal	72	94.7	1	1.3	3	4.0
7	The conditions of my life are excellent	70	92.1	2	2.6	4	5.3
8	I am satisfied with my life	72	94.7	1	1.3	3	4.0
9	So far, I have gotten the important things I want in my life	60	79.0	7	9.2	9.2	11.8
10	If I could live my life over, I would change almost nothing	47	61.8	10	32.2	9	25
11	I am satisfied with my health	71	93.4	3	4.0	2	2.6
12	I am healthy	74	97.4	2	2.6	-	-
13	I am healthier than many people around me	65	85.5	10	13.2	1	1.3
14	I am satisfied with my level of income	53	69.7	5	6.6	18	23.7
15	I experience satisfaction in my work	64	84.2	2	2.6	10	13.2
16	My job gives me a feeling of security	67	88.2	2	2.6	7	9.2
17	I am doing well amongst my professional colleagues	71	93.4	4	5.3	1	1.3
18	My profession is prestigious and it gives me a sense of fulfillment	73	96.1	3	3.9	-	-
19	My finances are under control	74	97.4	1	1.3	1	1.3
20	I have no problem in meeting my financial obligations	69	90.8	3	3.9	4	5.3
21	I have a sense of financial security	72	94.7	3	3.9	1	1.3
22	I manage my money well	72	94.7	2	2.6	2	2.6
23	I have good financial management	72	94.7	2	2.6	2	2.6
24	I have financial independence	73	96.1	2	2.6	1	1.3
25	I am satisfied with my marital status	41	54.0				
26	I am satisfied with my marriage	41	54.0				
27	I am satisfied with my spouse	41	54.0				
28	I am enjoying my home	41	54.0				
29	I am fulfilled in marriage	41	54.0				

Life satisfaction domains scores are presented in Table 3. The mean scores for family, satisfaction with life, social relationship, life satisfaction, health, work, finance and marriage domains were 6.7 ± 0.57 , 13.1 ± 1.18 , 12.4 ± 1.93 , 28.3 ± 5.55 , 17.6 ± 3.07 , 27.5 ± 5.97 , 35.1 ± 4.96 and 18.0 ± 16.87 , respectively.

Table 3: Life satisfaction domain scores

Domain	Mean \pm SD	Range	
		Minimum	Maximum
Family	6.7 \pm 0.57	1	7
Satisfaction with life	13.1 \pm 1.18	2	14
Social relationship	12.4 \pm 1.93	2	14
Life satisfaction	28.3 \pm 5.55	5	35
Health	17.6 \pm 3.07	3	21
Work	27.5 \pm 5.97	5	35
Finance	35.1 \pm 4.96	6	42
Marriage	18.0 \pm 16.87	5	35

Table 4: Comparison of total life satisfaction score (N = 76)

Variables	Mean \pm SD	t-test	p- value
Gender			
Male	158.5 \pm 28.08	0.050	0.962
Female	158.8 \pm 26.6		
Marital status			
Single	136.0 \pm 19.52	-10.49	0.001*
Married	178.0 \pm 15.35		
Educational qualification			
First Degree	152.5 \pm 28.11		
Postgraduate	175.9 \pm 5.30	-3.524	0.001*
Workplace			
Federal	156.4 \pm 25.75		
State	166.4 \pm 31.60	-1.346	0.182
Cadre			
Intern	138.6 \pm 14.86 ^a		
PT	158.2 \pm 25.23 ^b	10.901	0.001*
SCPT	179.7 \pm 18.06 ^c		
MCPT	176.3 \pm 30.03 ^c		

Key: Significant at $p < 0.05$. Superscript abc- was used to present the LSD Post-hoc analysis. Mean mode with the same superscript indicates no significant difference between mean. Mean mode with different superscript indicates significant difference. PT = Physiotherapist. SCPT = Senior Cadre Physiotherapist (Comprised of Senior and Principal Physiotherapist). MCPT = Management Cadre Physiotherapist (Comprised of Chief Physiotherapist and Assistant Director of Physiotherapy).

Comparison of total life satisfaction score by gender, marital status, educational level, cadre and workplace is presented in Table 4. There was a significant difference between the total life satisfaction scores of respondents compared based on marital status ($t = -10.49$; $p = 0.001$), educational qualification ($t = -3.524$, $p = 0.001$) and cadre ($F\text{-ratio} = 10.901$; $p = 0.001$). Chi-square test of association between level of life satisfaction and age, gender, marital status, educational qualification, cadre and workplace is presented in Table 5.

Table 5: Chi-square test of association between level of life satisfaction and age, gender, marital status, educational qualification, cadre, and workplace. N = 76

Variables	Slightly Dissatisfied N (%)	Slightly satisfied N (%)	Satisfied N (%)	Extremely satisfied N (%)	χ^2	p value
Age (years)						
21-30	4(5.3)	19(25.0)	9(11.8)	4(5.3)	31.01	0.001**
31-40	2(2.6)	3(3.9)	18(23.7)	6(7.9)		
41-50	0(0.0)	0(0.0)	4(5.3)	7(9.2)		
Gender						
Male	2(2.6)	15(19.7)	15(19.7)	10(13.0)	3.32	0.343
Female	4(5.2)	7(9.2)	16(21.0)	7(9.2)		
Marital status						
Single	6(7.9)	20(26.3)	9(11.8)	0(0.0)	42.97	0.001**
Married	0(0.0)	2(2.6)	22(28.9)	17(22.4)		
Educational level						
First degree	6(7.9)	20(26.3)	21(27.6)	9(11.8)	9.846	0.020*
Postgraduate	0(0.0)	2(2.6)	10(13.1)	8(10.5)		
Workplace						
Federal	4(5.3)	21(27.6)	23(30.3)	11(14.5)	6.29	0.098
State	2(2.6)	1(1.3)	8(10.5)	6(7.9)		
Cadre						
Intern	1(1.3)	17(22.4)	4(5.3)	0(0.0)	46.390	0.001**
PT	4(5.3)	4(5.3)	17(22.4)	5(6.6)		
SCPT	0(0.0)	1(1.3)	3(3.9)	5(6.6)		
MCPT	1(1.3)	0(0.0)	7(9.2)	7(9.2)		

Key: PT = Physiotherapist. SCPT = Senior Cadre Physiotherapist (Comprised of Senior and Principal Physiotherapist). MCPT = Management Cadre Physiotherapist (Comprised of Chief Physiotherapist and Assistant Director of Physiotherapy).

Significant association was observed between level of life satisfaction and age, marital status and cadre ($p=0.001$). However, association of level of life satisfaction with gender, education and place of work were not significant ($p>0.05$).

Discussion

This study assessed life satisfaction of physiotherapists from selected hospitals in South-Western Nigeria. The percentage distribution of the level of agreement for most of the questions asked shows a high level of life satisfaction among clinical physiotherapists in South-Western Nigeria. These findings are at variance with some previous investigations that reported lower job satisfaction in nurses and physiotherapists as a result of factors such as not being able to use professional knowledge, to be creative at job, and have intellectual stimuli, and lack of autonomy and self-realization at job (Carmel, 1997; Burdi and Baker, 1999; Zangaro and Soeken, 2007 and Campo, Weiser, and Koenig, 2009). Furthermore, the Life Satisfaction Scale Questionnaire (LSSQ) used in this study assessed eight domains of the respondents' lives. Life satisfaction has been described as an embodiment of several dimensions of life and life as a whole. It is overall fulfillment in life rather than a specific need fulfillment and shows the comparative relation of expectations and the existing situation (Doğan et al., 2012; Ozer and Karabulut, 2003).

The mean scores obtained across the eight domains of the LSSQ in this study were high. It implies that the physiotherapists were satisfied with every aspect of their lives. However, factors such as relatively lower salaries and remuneration, long working hours, loss of spare time, and emotional burnout have been identified in other studies for lower job and life satisfaction among physiotherapists (Zangaro and Soeken, 2007; Campo, Weiser, and Koenig, 2009). Also, Freeborn (2001) and Van Ham et al., (2006) identified role conflict, low levels of job control and difficulties at job, lack of autonomy and self-realization at job

and high levels of professional expectations as additional factors implicated for inadequate job and life satisfaction for physiotherapists. It is adduced that the high life satisfaction scores observed in this study may be largely due to among many other factors, the resilient nature of Nigerians and their religious inclinations and are not necessarily associated with job. Nigeria is a religious country where nearly everyone belongs to a religion. Religious persons are believed to be happier and more satisfied with their lives than non-religious people (Hadaway, 1978). The possible religious disposition portends being positive-minded and happy. Nigerians have been described as one of the happiest peoples on earth; however, the correlates of their happiness and life satisfaction have not been fully explored (Agbo, Nzeadibe, and Ajaero, 2012). Doğan et al. (2012) described job satisfaction to be related to personal variables not necessarily associated with the job and also to variables associated with the working environment.

It was found from this study that physiotherapists that married, have postgraduate qualification and are in a higher cadre of the profession have significantly higher levels of life satisfaction scores. In line with these results, Evans and Kelley (2004) reported good life satisfaction among married people. In addition, other researchers (Karney and Bradbury, 1995; Kapleyn, Smith, and van Soest, 2009) observed that a good marriage is a major source of happiness and life satisfaction. In consonance with this study, some previous investigators have reported a significant direct relationship between higher educational level and satisfaction with job and life (Carmel 1997; Kushnir, Cohen, and Kitai, 2000). However, a study reported an inverse relationship between increased educational level and satisfaction with job and life, and implicated a decrease in job satisfaction on the higher level of job expectations that comes with higher educational qualifications (Newstrom and Davis, 1993). It was also observed in this study that the senior and management cadre physiotherapists had higher mean satisfaction scores. Aside from the increase in job demands and expectations that

come with promotion in the workplace, there is also an increase in income and other accrual benefits. Doğan et al. (2012) submitted that an increase in professional experience improves communication and leadership skills, feelings of professional competence and the abilities of problem solving. Most of the senior and management cadre physiotherapists would have attended more continuous professional development and postgraduate training with enhanced confidence and skill in their practice. Academic and social self-efficacy, and confidence in the workplace have been found to be significant predictors of life satisfaction (Vecchio et al., 2007). However, there was no significant association between level of life satisfaction and gender and workplace. The absence of a significant association between gender and life satisfaction agrees with the work of Diener et al. (1999) who reported that men and women are similar in their overall levels of life satisfaction. Gender has been reported as an important personal factor influencing life satisfaction in some studies (Sousa and Lyubomirsky, 2001; Fujita, Diener, and Sandvik, 1995), but was denied in others (Ozyurt, Hayran, and Sur, 2006; Doğan et al., 2012). In addition, most of the physiotherapists agreed that their job was prestigious and that they experience satisfaction. This could explain why there was no significant difference in the level of life satisfaction of physiotherapists working in the Federal and State Government Hospitals. In past times there has been an inflow of physiotherapists from State Government Hospitals to Federal Government Hospitals basically because of the disparity in salary scale. However, the advent of Consolidated Health Salary Scale for Federal Public Servants (CONHESS, 2009) approved by the Federal Government has been adopted by the State Government for health workers in all the States of federation and has reduced the disparity in income. This may be a significant factor for the finding of this study.

More so in the past, many physiotherapists from this country have emigrated in search of a better life (Oyeyemi, 2001). Our findings indicate that physiotherapists in South-Western

Nigeria have a meaningful life style, their dreams, desires, hopes and aspirations are achieved, and their life is close to ideal. Thus, 70% reported satisfaction with their income, a greater percentage was satisfied with their work, and almost all respondents found the profession prestigious with a sense of fulfillment. These results imply that there is a high tendency for a large number of physiotherapists in South-Western Nigeria to remain in the country in their respective hospitals in both the state and federal government. Allen et al. (2000) reported that enhanced productivity, effectiveness in the work place, social resources and health were linked to life satisfaction, therefore implying that physiotherapists in South-Western Nigeria may exhibit enhanced productivity and effectiveness.

Limitations

Study limitations include the fact that we could not assess physiotherapists in private practice and those not yet engaged with work. Inability of the questionnaire to assess levels of income vis-à-vis cadre and place of work is another limitation of the study.

Conclusion

Life satisfaction of clinical physiotherapists in South-Western Nigeria was high. Marriage, postgraduate qualification and higher professional cadre were significantly associated with higher level of life satisfaction scores.

Conflict of interest: None declared.

References

- Agbo, A.A., Nzeadibe, T.C., and Ajaero, C.K. 2012. Happiness in Nigeria: A socio-cultural analysis. In H. Selin and G. Davey, eds., *Happiness across cultures: Views of happiness and quality of life in non-Western cultures*. New York: Springer, pp. 293-310
- Alao, O. 2008. The relationship between teacher's effectiveness and life satisfaction. PhD Obafemi Awolowo University.
- Allen, T.D., Herst, D.E.L., Bruck, C.S., and Suttton, M. 2000. Consequences associated with work-family conflict: A review and agenda for future research. *Journal of Occupational Health Psychology*, 5(2), pp. 278-308.
- Beutell, N. 2006. Life satisfaction: a Sloan network encyclopedia entry. *Journal of Sloan Work and Family*, 2(3), pp. 1125-1127.
- Budh, C.N. and Osteraker, A. 2007. Life satisfaction in individuals with a spinal cord injury and pain. *Clinical Rehabilitation*, 1, pp. 89.
- Burdi, M.D. and Baker, L.C. 1999. Physicians' perceptions of autonomy and satisfaction in California. *Health Affairs*, 18: pp. 134-145.
- Campo, M.A, Weiser, S. and Koenig, K.L. 2009. Job strain in physical therapists. *Physical Therapy*, 89, pp. 946-956.
- Carmel, S. 1997. The professional self-esteem of physicians scale, structure, properties, and the relationship to work outcomes and life satisfaction. *Psychological Reports*, 80, pp. 591-602.
- CONHESS. 2009. Consolidated Health Salary Scale. A circular from the Presidency, National Salary, Incomes and Wages Commission. Office of the Executives Chairman, Wing B, 3rd Floor, Federal Secretariat Complex, Shehu Shagari Way, Abuja.
- Department of Citizenship, 2007; Immigration Canada. Immigrating to Canada as a skilled worker Available through: <<http://www.cic.gc.ca/english/immigrate/skilled/apply-who.asp>>. [Accessed 04 June, 2013].
- Diener, E. and Biswas-Diener, R. 2002. Will money increase subjective well-being? *Social Indicators Research*, 57, pp. 119-169.
- Diener, E., Diener, M., and Diener, C. 1995. Factors predicting the subjective well-being of nations. *Journal of Personality and Social Psychology*, 69, pp. 851-864.
- Diener, E., Suh, E.M., Lucas, R.E., and Smith, H.L. 1999. Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125, pp. 276-302.
- Doğan, A., Deniz, M. E., Odabaş, H., Özyeşil, Z. & Özgirgin, N. 2012. Job and life satisfaction of the medical staff in rehabilitation centers. *Turkish Journal of Physical Medicine and Rehabilitation*, 58, pp. 16-21.
- Evans, M.D.R. and Kelley, J., 2004. Effect of family structure on life satisfaction: Australian evidence? *Social Indicators Research*, 69, pp. 303-349.
- Freeborn, D.K. 2001. Satisfaction, commitment and physiological well-being among HMO physicians. *West African Journal of Medicine*, 174, pp. 13-18.

- Fujita, F., Diener, E., and Sandvik, E. 1995. Gender difference in negative affect and well-being: the case for emotional intensity. *Journal of Personality and Social Psychology*, 61, pp. 427-434.
- Glass, C. 1999. Spinal cord injury: Impact and coping. *BPS books*, pp. 68-70.
- Hadaway, C.K. 1978. Life satisfaction and religion: A reanalysis. *Social Forces*, 57 (2), pp. 636-643.
- Jan, M. and Masood, T. 2008. Studies on home communication and science. *Kamla-Raj*: 2(1), pp. 33-42.
- Kapleyn, A., Smith, J.P., and van Soest A. 2009. Institute for the study of labour. *Discussion Paper Series* no. 4015.
- Karney, B.R. and Bradbury, T.N. 1995. The longitudinal course of marital quality and stability. A review of theory, method and research. *Psychological Bulletin*, 118, pp. 3-34.
- Kushnir T., Cohen A.H., and Kitai, E. 2000. Continuing medical education and primary physicians' job stress, burnout and dissatisfaction. *Medical Education*, 34, pp. 430-436.
- Newstrom J.W. and Davis, K. 1993. Organizational behavior. Human behavior at work. 9th ed., New York: McGraw-Hill.
- Onigbinde, A.T. 1996. Satisfaction of interns and the impact of internship programme on the physiotherapy practice in Nigeria. *Nigerian Journal of Medical Rehabilitation*, 2 (2), pp. 25-29.
- Oyeyemi, A.Y. 2001. Job satisfaction traits of Nigerian physical therapists. *Physiotherapy Theory and Practice*, 17(4), pp. 257-268.
- Oyeyemi, A.Y., Oyeyemi, A.L., Maduagwu, S.M., Rufai, A.A., and Aliyu, S.U. 2012. Professional satisfaction and desire to emigrate among Nigerian physiotherapists. *Physiotherapy Canada*, 64(3), pp. 225-232.
- Ozer, M. and Karabulut, O.O. 2003. Satisfaction of life in elderly individuals. *Turkish Journal of Geriatrics*, 6, pp. 72-74.
- Ozyurt, A., Hayran, O., and Sur, H. 2006. Predictors of burnout and satisfaction among Turkish physicians. *QJM*;99:pp. 161-169.
- Post, M.W., van Leeuwen, C.M., van Koppenhagen, C.F., and de Groot, S. 2012. Validity of the Life Satisfaction questions, the Life Satisfaction Questionnaire, and the Satisfaction With Life Scale in persons with spinal cord injury. *Archives of Physical Medicine and Rehabilitation*, 93(10), pp. 1832-1837.
- Roth, S.F., Heo, G., Varnhagen, C., Glover K.E., and Major P.W. 2003. Job satisfaction among Canadian orthodontists. *American Journal of Orthodontics and Dentofacial Orthopedics*, 123(6), pp. 695-700.
- Sousa L. and Lyubomirsky, S. 2001. Sex similarities and differences and the impact of society on gender. *Encyclopedia of Women and Gender*. Vol. 2, San Diego, CA: Academic Press, pp. 667-676.
- US Department of State. 2007. Bureau of Consular Affairs. Diversity visa lottery instruction [Internet] [cited Nov24]. Available through: <http://travel.state.gov/visa/immigrants/types/types_1318.html>. [Accessed 05 June, 2013].

Van Ham, I., Verhoeven, A.A., Groenier, K.H., Groothoff, J.W., and De Haan, J. 2006. Job satisfaction among general practitioners: a systematic literature review. *European Journal General Practice*, 12, pp. 174-180.

Vecchio, G.M., Gerbino, M., Pastorelli, C., Del Bove, G., and Caprara, G.V. 2007. Multi-faceted self-efficacy beliefs as predictors of life satisfaction in late adolescence. *Personality and Individual Differences*, 43, pp. 1807–1818.

Zangaro, G.A and Soeken, K.L., 2007. A meta-analysis of studies of nurses' job satisfaction. *Research in Nursing & Health*, 30, pp. 445-458.