

***Dr.Bahman Kord Tamini**

Assistant Professor of Psychology,
University of Sistan and Baluchestan

****Dr.Abdulwahab Pourghaz**

Assistant Professor of Education,
University of Sistan and Baluchestan

*****Sofia Khaneghaie**

Master student of Psychology,
University of Sistan and Baluchestan

A Cross-Cultural Study on Job Satisfaction as a Function of Organizational Commitment and Mental Health among Employees of Aligarh Muslim University in India and University of Sistan and Baluchestan in Iran

Abstract

The purpose of the present study is to ascertain the relationship of job satisfaction with organizational commitment and mental health between Aligarh Muslim University (A.M.U) and University of Sistan and Baluchestan (U.S.B) employees. The sample size consists of 205 employees (104 employees from A.M.U and 101 employees from U.S.B), randomly selected for this study. Job Satisfaction Questionnaire, Organizational Commitment Scale and General Health Questionnaire (GHQ – 12) were applied to collect the data. Results

*Email: serdeh58@yahoo.in

** Email:w.pourghaz@yahoo.com

*** Email:Sofia67khaneghaie@ymail.com

receipt: 25-10-2010

Acceptance:16-4-2011

demonstrated that job satisfaction had significant positive relation with affective, continuance, normative and total scores of organizational commitment. But, job satisfaction was negatively correlated with physical symptoms, anxiety, social dysfunction, depression, and total scores of GHQ – 12. The results of stepwise regression revealed that in A.M.U employees total scores of organizational commitment accounted for 21.9% of the variance and in the second step total scores of mental health accounted for 8% of the variance in job satisfaction; organizational commitment was a significant positive predictor for job satisfaction while mental health was a significant negative one for it. In U.S.B employees total scores of organizational commitment accounted for 29.1% of the variance and in the second step total scores of social dysfunction accounted for 5.7% of the variance in job satisfaction; organizational commitment was a significant positive predictor for job satisfaction; social dysfunction was a significant negative one for it. Results of t-test showed that U.S.B employees had significantly higher scores on depression and mental health in comparison with A.M.U employees. But there was no significant difference between A.M.U and U.S.B employees on job satisfaction, affective, continuance, normative commitment, total scores of organizational commitment, physical symptoms, anxiety, and social dysfunction. Eventually, it can be concluded that the amount of mental health of A.M. U employees were better than U.S.B employees.

Key Words: job satisfaction, organizational commitment, mental health, employees, India, and Iran.

Introduction

Besides the traditional functions of and ways to change attitudes, in the field of organizational behavior more recent and directly relevant is the attention being given to affective dispersions as antecedents of work-related attitudes such as job satisfaction (Judge& Larsen, 2001; Luthans, 2008, p.140). Job satisfaction is undoubtedly the most studied variable in Industrial and Organizational Psychology. Much of this popularity derives from the relative ease with which job satisfaction can be assessed. Another reason for the popularity of the study of job satisfaction is that it is a central variable in many theories that deal with organizational phenomena, such as the nature of work, supervision, and

the job environment. Job satisfaction has been posited as a cause of important employee and organizational outcomes ranging from job performance to health and longevity (Spector, 2003; Tamini & Khan, 2009). Job satisfaction is one of the attitudinal variables which is related to employee's affect, feeling, cognition and thinking. The most famous definition of job satisfaction is by Locke (1976), who defined it as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences" (p. 1304). When we think, we have feelings about what we think. Conversely, when we have feelings, we think about what we feel. Cognition and affect are thus inextricably linked, in our psychology and even in our biology. Thus, when evaluating our jobs, as when we assess most anything important to us, both thinking and feeling are involved (Saari & Judge, 2004).

Although job satisfaction has received the most attention of all work-related attitudes, organizational commitment has become increasingly recognized in the organizational behavior literature (Luthans, 2008). Whereas satisfaction is mainly related with the employee's attitude toward the job, commitment is at the level of the organization, and it has three domains: affective commitment, continuance commitment and normative commitment. Studies demonstrated that a strong relationship was found between job satisfaction and organizational commitment (Wu and Norman, 2006; Blegen, 1993; Fang, 2001; AL-Aameri, 2000; Redfern, Hannan, & Norman, 2002; Ingersoll et al., 2002; Knoop, 1995). Tinti (1995) found a strong positive correlation between the attitudinal variables (job satisfaction and organizational commitment). Satisfaction with the job as a significant contributor to organizational commitment has been well documented (Flynn & Solomon, 1985; Mottaz, 1987; Vanderberg & Lance, 1992; Steinhaus & Perry, 1996; Morrison, 1997; Young, Worchel, & Woehr, 1998; Eby & Freeman, 1999; Testa, 2001). These studies are not only consistent in reporting a positive correlation between job satisfaction and organizational commitment, but also show the correlation is strong across studies. A majority of researchers have concluded job satisfaction as an antecedent of commitment (Williams & Hazer, 1986; Price & Mueller, 1981). Job satisfaction was found to be an important predictor of organizational commitment (Sonia, Pamela, & Marilyn, 1997; Sikorska, 2005; Lalopa, 1997; Porter, Steers, Mowday, & Boulian, 1974; Price, 1977; Rose, 1991; Tamini & Khan,

2009). However, Draper et al.'s study (2004) found a negative relationship between job satisfaction and dimensions of commitment with a sample of NHS cadets.

In the definition of WHO, mental health is regarded as one of the needed factors for general health. According to the experts of this organization, health is a status of well-being of body, mind, and society, not only for the lack of disease (Boldero & Fallon, 1995). Kaplan and Sadock (1993) define the mental health as "a condition of well-being and the feeling in person when can come to terms with society, and personal situation and social features are satisfying for him/her". There is some evidence that current trends of employment conditions maybe grid down levels of job satisfaction and directly making vulnerable the physical and mental health of employees (Kenny, Carlson, Mc Guigan et al., 2000). Jashi (1998) showed that there was a significant correlation between job satisfaction and mental health. In a meta-analysis research Faragher, Cass and Cooper (2005) showed that job satisfaction was strongly associated with mental/psychological problems. Fischer & Sousa-Poza (2007) found a positive link between job satisfaction (and changes over time therein) and subjective health measures (and changes therein); that is, employees with higher or improved job satisfaction levels felt healthier and were more satisfied with their health. Puriene et al. (2008) revealed that self-perceived lack of self-esteem, loneliness, and especially depression had a high negative impact on dentists' job satisfaction. Baglioni, Cooper & Hingley (1990) concluded that several stressors were identified which had a negative impact on job satisfaction.

In a cross-cultural study, Tamini & Mohammadyfar (2009) compared the mental health and life satisfaction of Irani and Indian students; results demonstrated that the mental health status of Indian students were better than that of their Iranian counterparts and moreover, the Indian were more satisfied with their lives than the Iranian.

Further, most of the current researches have been carried out among western countries and due to lack of research on this topic among university employees in India and Iran, such a research is needed; furthermore, the relationship between job satisfaction, organizational commitment and mental health of university employees of two different cultures like Sistan and Baluchestan (Iran) and Aligarh

(India) is justifiable. The objective of the present study was to ascertain the relationship between job satisfaction, organizational commitment and mental health between the two universities' employees to see which of them are working under more strain and occupational stress in their workplace.

Research Questions

1. Is there significant correlation between job satisfaction and organizational commitment of A.M.U employees?
2. Is there significant correlation between job satisfaction and organizational commitment of U.S.B employees?
3. Is there significant correlation between job satisfaction and mental health of A.M.U employees?
4. Is there significant correlation between job satisfaction and mental health of U.S.B employees?
5. Do organizational commitment and mental health predict job satisfaction in A.M.U employees?
6. Do organizational commitment and mental health predict job satisfaction in U.S.B employees?
7. Is there significant difference between mean scores of A.M.U and U.S.B employees on job satisfaction, organizational commitment and mental health?

Subjects and Methods

Sample

The population of this research consists of Aligarh Muslim University (India) and Sistan and Baluchestan University (Iran) employees. To select the suitable sample from these population 205 employees (104 employees from A.M.U and 101 employees from U.S.B) were selected randomly and completed the three measures, namely Job Satisfaction (JS), Organizational Commitment Scale (OCS) and General Health Questionnaire – 12 (GHQ – 12). The sample size was also consisted of 123 male, 82 female employees.

Procedure

The study was conducted in Aligarh Muslim University (India) and University of Sistan and Baluchestan (Iran). In the present research the sample size consists of 205 employees who currently work as employee in the two universities, and all were selected randomly for this study. The Indian employees filled the English version of scales and for Iranian employees these scales were well translated into the Persian language. Permission letters were obtained from the psychology departments of the two universities for distributing the scales among the samples; the scales were given to participants and they were also given adequate instructions on how to respond to the questions. The respondents were also assured that their participation in the study was voluntary and their responses would remain confidential and be used for research purpose only.

Measures

Job Satisfaction Questionnaire

The Job Satisfaction Questionnaire was developed by Singh (1989), containing 20 items. Each item is rated from very dissatisfied to very satisfied, assigning: 1 for very dissatisfied, 2 for dissatisfied, 3 for neutral, 4 for satisfied, and 5 for very satisfied. The standardized alpha reliability was reported 0.96. In the present study, reliability of this questionnaire using Cronbach alpha was 0.89.

Organizational Commitment Scale

The level of organizational commitment was assessed with the help of organizational commitment scale developed by Khan and Mishra (2002). The organizational commitment scale consists of 18 items, with five alternative responses, namely: strongly agree, slightly agree, undecided, slightly disagree and strongly disagree. The 18 items comprising the three sub-scales are affective commitment, continuance commitment and normative commitment. The median coefficients for all of the 3 sub-scales ranged between 0.83 to 0.93, and the same for organizational commitment scale was found to be 0.87. In the current research the standardized alpha reliability was equal to 0.65.

General Health Questionnaire (GHQ-12)

This questionnaire was developed by Goldberg et al. (1997) in order to identify mental disorder. This questionnaire includes 12 items with three sub-scales: physical complaints, anxiety disorders, social dysfunction and depression. The validity of the GHQ-12 was compared with the GHQ-28 in a World Health Organization study of psychological disorders in general health care. The GHQ was translated into 10 other languages for the purpose of study, and validity coefficients were almost as high as those in the original language. Tamini and Mohammadyfar (2009), in a study, compared the mental health and life satisfaction of Irani and Indian students; in their study the alpha coefficient was 0.75. In the present study alpha coefficient was 0.66.

Table 1: Cronbach's Alpha coefficient of the scales used in the study (n=205)

Scale	No. of Items	Alpha Cronbach
Job satisfaction	20	.89
Organizational Commitment	18	.65
General Health Questionnaire	12	.66

Results

Data was analyzed using SPSS 13. Parametric tests such as Pearson correlation coefficient, Stepwise regression and independent t-test were calculated to analyze the data.

Table 2: Pearson Correlation between Job Satisfaction, Organizational Commitment and Mental Health among Aligarh Muslim University Employees (n=104)

Variable	1				5					0
1. Job satisfaction	1.000									
2. Affective commitment	.302*	.000								
3. Continuance commitment	.291*	.045	.000							
4. Normative commitment	.336*	.184*	.239*	.000						
5. Total organizational commitment	.468*	.642*	.645*	.696*	1.000					

6. Physical symptoms	-.124				-.027					
		.070	.083	.066		.000				
7. Anxiety	-.366*	.265	.024	.246	.246*	.266*	.000			
	*	*		*						
8. Social dysfunction	-.348*	.208	.140	.210	.282*	.271*	.477*	.000		
	*	*		*	*	*	*			
9. Depression	-.265*	.191	.102	.113	.208*	.321*	.277*	.329*	.000	
	*	*			*	*	*	*		
10. Total GHQ – 12	-.401*	.269	.050	.230	.279*	.616*	.729*	.752*	.708*	.000
	*	*		*	*	*	*	*	*	

** P<.01, *P<.05

Table 2 illustrates the correlation between job satisfaction, organizational commitment and mental health among Aligarh Muslim University employees. Job satisfaction had significant positive correlation with affective commitment [$r=.302$, $n=104$, $p<.01$], continuance commitment [$r=.291$, $n=104$, $p<.01$], normative commitment [$r=.336$, $n=104$, $p<.01$], and total scores of organizational commitment [$r=.468$, $n=104$, $p<.01$], with high scores of job satisfaction associated with higher scores of organizational commitment and its dimensions. But job satisfaction was negatively correlated with anxiety [$r=-.366$, $n=104$, $p<.01$], social dysfunction [$r=-.348$, $n=104$, $p<.01$], depression [$r=-.265$, $n=104$, $p<.05$], and total scores of GHQ – 12 [$r=-.401$, $n=104$, $p<.01$], with high scores of job satisfaction associated with lower scores of mental health and its sub-scales. Results demonstrated that there was no significant difference between job satisfaction and physical symptoms [$r=-.124$, $n=104$, $p>.05$].

Table 3: Pearson Correlation between Job Satisfaction, Organizational Commitment and Mental Health among Employees of Sistan and Baluchestan University ($n=101$)

Variable	1	2	3	4	5	6	7	8	9	0
1. Job satisfaction	1.000									

2. Affective commitment	.479* *	.000								
3. Continuance commitment	.307* *	.325 *	.000							
4. Normative commitment	.465**	.420**	.418**	.000						
5. Total organizational commitment	.539* *	.793**	.762* *	.743* *	.000					
6. Physical symptoms	-.245* *	-.167	-.082	-.195* *	-.187	.000				
7. Anxiety	-.200* *	-.184	.124	.031	-.025	.398**	.000			
8. Social dysfunction	-.350** *	-.225* *	-.055	-.234* *	-.218* *	.502**	.573**	.000		
9. Depression	-.078	-.071	.211*	.051	.078	.250*	.295**	.344**	.000	
10. Total GHQ – 12	-.254* *	-.192* *	.120	-.073	-.067	.616**	.693**	.751**	.805**	.000

**p<.01, *p<.05

Table 3 illustrates the correlation between job satisfaction, organizational commitment and mental health among Sistan and Baluchestan University employees. Job satisfaction had significant positive correlation with affective commitment [$r=.479$, $n=101$, $p<.01$], continuance commitment [$r=.307$, $n=101$, $p<.01$], normative commitment [$r=.465$, $n=101$, $p<.01$], and total scores of organizational commitment [$r=.539$, $n=101$, $p<.01$], with high scores of job satisfaction associated with higher scores of organizational commitment and its dimensions. But job satisfaction was negatively correlated with physical symptoms [$r= -.245$, $n=101$, $p<.05$], anxiety [$r= -.20$, $n=101$, $p<.05$], social dysfunction [$r= -.35$, $n=101$, $p<.01$], and total scores of GHQ – 12 [$r= -.254$, $n=101$, $p<.01$], with high scores of job satisfaction associated with lower scores of mental health and its

sub-scales. Results demonstrated that there was no significant difference between job satisfaction and depression [$r=-.078$, $r=101$, $p>.05$].

Table 4: Summary of Stepwise Regression Analyses with Job Satisfaction as Criterion for Organizational commitment and Mental Health in Aligarh Muslim University Employees (India)

Criterion	Predictors	Beta	T	P
Job Satisfaction	Total Organizational Commitment	.386***	4.418	.000
	Total Mental Health	-.294**	-3.366	.001
	R=.468, .546	R ² =.298	R ² change=.219, .080	***p<.001, **p≤.001

Table 4 illustrates the results of stepwise regression of organizational commitment and mental health on job satisfaction. Results revealed that total scores of organizational commitment as first variable entered into equation regression and it was (Beta=.386, $p<.001$) significantly related with job satisfaction, and in the second step total scores of mental health entered into equation regression and it was (Beta= -.294, $p\leq.001$) negatively related with job satisfaction. Affective, continuance and normative commitment and mental health sub-scales: physical symptoms, anxiety, social dysfunction and depression failed enter into the regression equation, which shows that they were not significantly associated with job satisfaction. Total scores of organizational commitment accounted for 21.9% of the variance in job satisfaction and in the second step total scores of mental health accounted for 8% of the variance in job satisfaction.

Table 5: Summary of Stepwise Regression Analyses with Job Satisfaction as Criterion for Organizational commitment and Social Dysfunction in Sistan and Baluchestan University Employees (Iran)

Criterion	Predictors	Beta	T	P
Job Satisfaction	Total Organizational Commitment	.486***	5.815	.000
	Social Dysfunction	-.24 **	-2.917	.004
	R=.539, .590	R ² =.348	R ² change=.291, .057	***p<.001, **p<.01

Table 5 illustrates the results of stepwise regression of organizational commitment and mental health on job satisfaction. Results demonstrated that total scores of organizational commitment as first variable entered into equation regression and it was ($Beta=.486$, $p<.001$) significantly related with job satisfaction, and in the second step social dysfunction entered into equation regression and it was ($Beta= -.244$, $p<.01$) negatively related with job satisfaction. Affective, continuance and normative commitment and total scores of mental health and its sub-scales: physical symptoms, anxiety, social dysfunction and depression failed enter into the regression equation, which shows that they were not significantly associated with job satisfaction. Total scores of organizational commitment accounted for 29.1% of the variance in job satisfaction and in the second step total scores of social dysfunction accounted for 5.7% of the variance in job satisfaction.

Table 6: showing Mean, S.D, and t-value between A.M.U and U.S.B employees on study variables

Variable	Unive rsity	Mea n	S.D	t	Sig.
Job satisfaction	A.M. U	68.7 692	11.6 496	- .620	.536
	U.S.B	69.8 515	13.3 164		
Affective commitment	A.M. U	22.0 288	4.33 65	- .461	.646
	U.S.B	22.3 168	4.61 29		
Continuance commitment	A.M. U	19.1 346	4.14 09	- .262	.794
	U.S.B	19.2 871	4.19 84		
Normative commitment	A.M. U	21.0 192	3.89 67	1.11 8	.265
	U.S.B	20.4 653	3.14 82		
Total Organizational commitment	A.M. U	62.1 827	8.16 55	.093	.926
	U.S.B	62.0 693	9.20 14		
Physical symptoms	A.M. U	5.22 12	1.29 94	- 1.717	.087

	U.S.B	5.54 46	1.39 66		
Anxiety	A.M. U	5.59 62	1.61 02	- .843	400
	U.S.B	5.79 21	1.71 65		
Social dysfunction	A.M. U	5.49 51	1.65 02	- 1.581	115
	U.S.B	5.88 12	1.83 46		
Depression	A.M. U	5.25 00	1.72 78	- 2.734**	007
	U.S.B	6.32 67	3.61 42		
Total GHQ-12	A.M. U	21.5 825	4.44 25	- 2.565**	01
	U.S.B	23.5 446	6.33 64		

**p<.01

As shown in table 6, there is significant difference between A.M.U and U.S.B employees on depression ($t(203) = -2.734$, $p = .007$) and total scores of mental health ($t(203) = -2.565$, $p = .01$). U.S.B employees showed significantly higher scores on these variables in comparison with A.M.U employees. But no significant difference is seen between A.M.U and U.S.B employees on job satisfaction, affective, continuance, normative commitment, total scores of organizational commitment, physical symptoms, anxiety, and social dysfunction.

Discussion

The purpose of the present study was to explore the relationship of job satisfaction and organizational commitment of Aligarh Muslim University and Sistan and Baluchestan University employees. Pearson correlation coefficient illustrated that there was significant relation between job satisfaction, organizational commitment and mental health among Aligarh Muslim University employees. Job satisfaction had significant positive relation with affective, continuance, normative, and total scores of organizational commitment, with high scores of job satisfaction associated with higher scores of organizational commitment and its dimensions. The results of this study are consistent with the research of Wu and Norman (2006); Blegen (1993); Fang (2001); AL-Aameri (2000); Redfern, Hannan, & Norman (2002);

Ingersoll et al. (2002); Knoop (1995). Tinti (1995) found a strong positive relation between the attitudinal variables (job satisfaction and organizational commitment). By increasing the amount of job satisfaction, the level of organizational commitment will increase. But job satisfaction was negatively correlated with anxiety, social dysfunction, depression, and total scores of GHQ – 12, with high scores of job satisfaction associated with lower scores of mental health and its sub-scales. Results demonstrated that there was no significant difference between job satisfaction and physical symptoms. Same results were emerged for Indian employees, while depression was not significantly correlated with job satisfaction. Our results are in conformity with the research of Kenny, Carlson, Mc Guigan et al. (2000). Jashi (1998) found out that there was a significant correlation between job satisfaction and mental health.

Results of stepwise regression revealed that in Aligarh Muslim University employees' total scores of organizational commitment as first variable entered into equation regression and it was significantly related with job satisfaction, and in the second step total scores of mental health entered into equation regression and it was negatively related with job satisfaction. Total scores of organizational commitment accounted for 21.9% of the variance in job satisfaction and in the second step total scores of mental health accounted for 8% of the variance in job satisfaction. Organizational commitment was a unique positive significant predictor for job satisfaction while mental health was a negative predictor for job satisfaction. Affective, continuance and normative commitment and mental health sub-scales, namely physical symptoms, anxiety, social dysfunction and depression failed enter into the regression equation, which shows that they were not significantly associated with job satisfaction. Results demonstrated that in University of Sistan and Baluchestan employees' total scores of organizational commitment as first variable entered into equation regression and it was significantly related with job satisfaction, and in the second step social dysfunction entered into equation regression and it was negatively related with job satisfaction. Affective, continuance and normative commitment and total scores of mental health and its sub-scales, namely physical symptoms, anxiety, and depression failed enter into the regression equation, which shows that they were not significantly associated with job satisfaction. Total scores of organizational

commitment accounted for 29.1% of the variance in job satisfaction and in the second step total scores of social dysfunction accounted for 5.7% of the variance in job satisfaction. As emerged, in A.M.U organizational commitment was a positive predictor for job satisfaction; in employees of U. S. B., organizational commitment was a unique positive predictor for job satisfaction. It seems that in both universities, employees' job satisfaction was determined by organizational commitment, but in employees of U.S.B, social dysfunction was a negative predictor for job satisfaction; if the amount of social dysfunction is high, job satisfaction of employees will be decreased. Studies have demonstrated that job satisfaction was a significant contributor to organizational commitment (Flynn & Solomon, 1985; Mottaz, 1987; Vanderberg & Lance, 1992; Steinhaus & Perry, 1996; Morrison, 1997; Young, Worchel, & Woehr, 1998; Eby & Freeman, 1999; Testa, 2001; Williams & Hazer, 1986; Price & Mueller, 1981; Sikorska, 2005; Tamini & Khan, 2009). Same results were reported by Cass and Cooper (2005); they showed that job satisfaction was strongly associated with mental/psychological problems. Puriene et al. (2008) revealed that self-perceived lack of self-esteem, loneliness, and especially depression had a high negative impact on dentists' job satisfaction.

Results of independent t-test demonstrated that there was significant difference between A.M.U and U.S.B employees on depression and total scores of mental health. U.S.B employees showed significantly higher scores on these variables in comparison with A.M.U employees. But there was no significant difference between A.M.U and U.S.B employees on job satisfaction, affective, continuance, normative commitment, total scores of organizational commitment, physical symptoms, anxiety, and social dysfunction. Tamini and Mohammadyfar (2009), in a cross-cultural study, showed that Iranian students exhibited higher mean scores on mental health and lower life satisfaction in comparison with their Indian counterparts. It seems that cultural differences can justify this disproportion. Indian employees can enjoy catharsis concerning their feelings and emotions, such as laughing, crying and going out, while Iranian employees internalize their emotions and feelings; furthermore, they suffer from higher level of depression and have lower mental health.

References

- AL-Aameri, A. S. (2000). **Job satisfaction and organizational commitment for nurses. Saudi Medical Journal**, 21(6): 513-535.
- Baglioni, A. J., Cooper, C. L. and Hingley, P. (1990). **Job stress, mental health and job satisfaction among UK senior nurses.** Stress Medicine, 6: 9–20.
- Blegen, M. (1993). **Nurses' job satisfaction: a meta-analysis of related variables.** Nursing research, 42 (1): 36-41.
- Crossman, A., & Abou-Zaki, B. (2003). **Job satisfaction and employee performance of Lebanese banking staff.** Journal of Managerial Psychology, 18(4): 368-376.
- Draper, J., Halliday, D., Jowett, S., et al. (2004). **NHS Cadet Schemes: student experience, commitment, job satisfaction and job stress.** Nurse Education Today, 24(3): 219-228.
- Eby, L. T., & Freeman, D. M. (1999). **Motivational bases of affective organizational commitment: A partial test of an integrative theoretical model.** Journal of Occupational & Organizational Psychology, 72 (4): 463-483.
- Fang, Y. (2001). **Turnover propensity and its causes among Singapore nurses, an empirical study.** International Journal of Human Resource Management, 12(5): 859-871.
- Fischer, J. A. V., & Sousa-Poza, A. (2007). **Does Job Satisfaction Improve the Health of Workers? New Evidence Using Panel Data and Objective Measures of Health.** Discussion Paper No. 3256.
- Flynn, D. M., & Solomon, E. (1985). **Organizational Commitment: A multivariate test within the banking industry.** Psychological Reports, 57: 119-130.
- Goldberg, D., Gater, R., Sartorius, N., Ustun, T.B., Piccinelli, M., Gureje, O. & Rutter, C. (1997). **The validity of two versions of the GHQ in the WHO study of mental illness in general health care.** Psychological Medicine, 27: 191-197.
- Ingersoll, G., Olsan, T., Drew-Cates, J., & et al. (2002). **Nurses' job satisfaction, organizational commitment, and career intent.** Journal of Nursing Administration, 32, (5): 250-263.

- Judge, T. A., & Larsen, R. J. (2001). **“Dispositional Affect and Job Satisfaction: A Review and Theoretical Extension.”** Organizational Behavior and Human Decision Process, 86(1): 67 – 98.
- Khan, S. M., & Mishra, P. C. (2002). **Construct Validation of Multi Dimensional Organizational Commitment Scale.** (Unpublished Manuscript). Department of Psychology, Lucknow University, Lucknow.
- Knoop, R. (1995). **Relationships between job involvement, job satisfaction, and organizational commitment for nurses.** Journal of Psychology Interdisciplinary & Applied, 129 (6): 643-649.
- Lalopa, J. M. (1997). **The prediction of Organizational Commitment and Turnover in Resort Jobs.** Journal of Hospitality and Tourism Research, 21: 11-26.
- Journal of Organizational Behavior, 12: 341-363.
- Locke, E. A. (1976). **The nature and causes of job satisfaction.** In M. D. Dunnette (Ed.), Handbook of industrial and organizational psychology (pp. 1297–1349). Chicago: Rand McNally.
- Luthans, F. (2008). **Organizational Behavior**, (11th Ed). Mc Graw Hill: New York.
- Morrison, K. A. (1997). **How franchise job satisfaction and personality affects performance, organizational commitment, franchisor relations, and intention to remain.** Journal of Small Business Management, 35 (3): 39-67.
- Mottaz, C. J. (1987). **An analysis of the relationship between work satisfaction and organizational commitment.** The Sociological Quarterly, 28(4): 541-558.
- Porter, L. W., Steers, R. M., Mowday, R. T., & Boulian, P. V. (1974). **“Organizational Commitment, Job Satisfaction, and Turnover among Psychiatric Technicians”.** Journal of Applied Psychology, 95: 603-609.
- Price, J. L. (1977). **The study of turnover.** Ames, IA: Iowa State University Press.
- Price, J., & Mueller, C. (1981). **Professional Turnover: The Case of Nurses.** New York, Medical and Scientific Books.
- Puriene, A., Aleksejuniene, J., Petrauskiene, J., Balciuniene, I., & Janulyte, V. (2008). **Self-perceived Mental Health and Job Satisfaction among Lithuanian Dentists.** Journal of Industrial Health, 46: 247–252.

- Redfern, S., Hannan, S., & Norman, I. (2002). **Work satisfaction, stress, quality of care, and morale of older people in a nursing home**. *Health and Social Care in the Community*, 10 (6): 512-517.
- Rose R. W. (1991). **Comparisons of employee turnover in food and beverage and other departments in hotel properties**. Ann Arbor, MI: UMID Dissertation Services.
- Saari, L.M., & Judge, T. A. (2004). **Employee Attitudes and Job Satisfaction**. *Human Resource Management*, 43 (4): 395–407.
- Sikorska, S. E. (2005). **Predictors of organizational commitment among staff in assisted living**. *Gerontologist*, 45(2): 196-205.
- Singh, S. (1989). **“Organizational Stress and Executive Behavior”**. Unpublished Research Monograph, Shri Ram Centre of Industrial Relations & Human Resources: New Delhi.
- Sonia, A., Pamela, A. R., & Marilyn, C. (1997). **Decentralization as a Determinant of Autonomy, Job Satisfaction, and Organizational Commitment among Nurse Managers**. *Nursing Research*, 46 (1): 52-58.
- Spector, P. E. (2003). **Industrial & Organizational Psychology**, (3rd Edition). John Wiley Publications.
- Steinhaus, C. S., & Perry, J. L. (1996). **Organizational commitment: Does sector matter? Public Productivity & Management Review**, 19 (3): 278-288.
- Tamini, B. K., & Khan, M. S. (2009). **“A Comparative Study of Job Satisfaction as a Function of Organizational Commitment, Personality Type and Self-concept of Bank Employees of Iran and India**. *Indian Journal of Psychology and Mental Health*, 3(5): 1-9.
- Tamini, B. K., & Mohammadyfar, M. A. (2009). **“Mental Health and Life Satisfaction of Irani and Indian Students”**. *Journal of the Indian Academy of Applied Psychology*, 35 (1): 137 – 142.
- Testa, M. R. (2001). **Organizational commitment, job satisfaction, and effort in the service environment**. *Journal of Psychology*, 135 (2): 226-236.
- Tinti, L. (1995). **The Effect of Leadership Behavior on Subordinate Employees’ Perceived Level of Organizational Support, Organizational Commitment, and Job Satisfaction**. Unpublished M.A. thesis, California State University, Industrial and Organizational

Psychology, Long Beach.

- Vandenberg, R., & Lance, C. (1992). **“Examining the causal order of job satisfaction and organizational commitment”**. Journal of Management, 18, (1): 153-167.

- Williams, L. J., & Hazer, J. T. (1986). **“Antecedents and consequences of satisfaction and commitment in turnover models: a re-analysis using latent variable structural equation methods”**. Journal of Applied Psychology, 71(2): 219-231.

- Wu, L., & Norman, J. I. (2006). **An investigation of job satisfaction, organizational commitment and role conflict and ambiguity in a sample of Chinese undergraduate nursing students**. Nurse Education Today, 26: 304-314.

- Young, B. S., Worchel, S., & Woehr, D. (1998). **Organizational commitment among public service employees**. Public Personnel Management, 27(3): 339-348.

Archive of SID