The Relation Between Psychological Stress and Locus of Control Among University Students

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The aim of this study is to investigate the correlation between psychological stress and locus of control among students at A University, while taking various factors into account. To achieve this objective, two scales were utilized: the psychological stress scale, previously used in Derany's (2003) research, and the Locus of Control scale, developed by Rotter and translated to Arabic and coded by Barhoom (1999). The study sample included 353 randomly selected students, and the data was analyzed using the distributive method of analysis. The findings indicated that the level of psychological stress among the students was moderate, with an average of 2.34. The mental area had the highest stress level, with a mean of 2.70, followed by the psychological area, with a mean of 2.32 and the physiological area, with a mean of 1.99. The majority of students exhibited an internal locus of control (59 percent), and there was a statistically significant difference between psychological stress and locus of control.

Keywords: psychological stress, locus of control, Al-Ain University, internal locus of control, external locus of control

INTRODUCTION

In the fast-paced and constantly evolving business landscape, where competition is fierce, companies have come to realize that gaining an edge over their competitors is crucial for success, or even survival. While modern technologies, improved equipment, advanced marketing strategies, and efficient production processes can be replicated, companies with a dedicated and loyal workforce are gaining momentum. Such organizations benefit from committed employees, which helps to reduce labor turnover. Since employee turnover is a costly affair, organizational theorists and practitioners are interested in identifying factors that can increase employee engagement and satisfaction, and adapt theoretical concepts to practical contexts to improve overall organizational performance (Arnett, Fritz & Bell, 2009).

Furthermore, there is mounting evidence that cognitive factors are closely linked to work-related behaviors (Luthans, Baack & Taylor, 1987). Previous studies have placed particular emphasis on the relationship between locus of control (LOC) and behaviors such as job satisfaction, employee engagement, and labor turnover. The thesis is rooted in Rotter's social learning theory (1966), which postulates that instinctual motivations play a critical role in human behavior. Individuals are driven by physiological needs

to satisfy themselves, and Rotter has identified the scientific principle of consequence as the driving force behind this hypothesis. The principle of effect suggests that individuals are motivated to pursue or affirm positive stimuli while avoiding negative ones. This study is inspired by this hypothesis, as it explores how individuals compare their current situation to their accustomed way of life. The research focuses on how locus of control affects employee loyalty and turnover in insurance firms, which are heavily reliant on human capital. The dedicated workforce and its retention function serve as a litmus test for these firms.

LITERATURE REVIEW

Several studies have established significant links between locus of control (LOC) and employee engagement. These findings consistently show that individuals with an internal LOC are more likely to be engaged in their work compared to those with an external LOC. Luthans et al. (1987) proposed three possible explanations for the relationship between LOC and engagement. Firstly, individuals with an internal LOC are likely to report higher levels of engagement since they perceive greater control over their work environment. Secondly, since internals are more likely to perceive alternative choices than those with external LOCs, and engagement is linked to the perception of choice, internals would be more dedicated to their work. Thirdly, since internals are more likely to take action when they are dissatisfied (particularly when leaving an organization), it is assumed that only committed internals would remain with a particular institution.

According to Meyer and Allen (1993), employee loyalty among blue-collar workers is primarily influenced by factors such as promotions, job satisfaction, career development opportunities, external and intrinsic rewards, and extrinsic and intrinsic incentives. Lee (2005) defined employee commitment as the perception that employees have regarding their organization's commitment to achieving success through corporate achievements. Various factors contribute to employee commitment, such as individual factors (including domestic influence, gender, age, tenure in the organization, and external influences), organizational factors (supervisory practices and management style), and non-organizational factors (substitutability). The terms organizational commitment and organizational loyalty are used interchangeably in this context. Three organizational factors are involved in this framework: alignment with the organization's goals and values, an individual's willingness to identify with the organization, and his or her tendency to exert effort to support the organization.

In 2012, Omari et al. conducted a study in Kenyan public companies to investigate the influence of human resources policies on the relationship between LOC and various employee outcomes, such as work satisfaction, employee engagement, confidence, and corporate citizenship behavior. The findings revealed that the relationship between LOC and these employee outcomes was moderated by human resources policies.

In a study conducted by Silverthorne (2008) in Taiwan, the impact of locus of control on job tension, work efficiency, and job satisfaction was analyzed. The study aimed to explore the relationships between locus of control and behavioral indicators of work-related stress in Taiwan. The results revealed that one important personality trait that predicts happiness, stress, and success among accountants in certified public accountants (CPA) firms in Taiwan is the locus of control. Individuals with a higher degree of internal locus of control were found to experience less stress, greater job satisfaction, and higher work performance.

According to Cheng's (1994) research, individuals with an internal locus of control are more likely to be satisfied with their jobs when they have access to job autonomy and are involved in decision-making processes related to their work. They are also more inclined to seek out opportunities to exert their influence within the organization. In contrast, individuals with an external locus of control are less likely to take action based on their convictions and may not perceive as many alternatives as internals (Spector, 1991).

In Opkara's (2002) analysis, it was found that there are several factors that influence employee satisfaction, including salary, opportunities for advancement, the nature of the job itself, interactions with colleagues, and supervision. Of these, salary was identified as the most significant factor in measuring employee satisfaction. Similarly, Frye's (2004) survey indicated that salary is the most crucial factor in attracting and retaining top talent for organizations, and is positively correlated with an employee's

commitment to the company. Another study was conducted to examine the relationship between pay and job satisfaction, which found a strong positive association between the two.

RESEARCH PROBLEM

This study aims to address the following research questions:

1. What is the extent of psychological stress experienced by the students at Al-Ain University?
2. Do the students at Al-Ain University exhibit an internal or external locus of control?
3. What is the association between psychological stress and locus of control among the students at Al-Ain University?

METHOD

The study collected primary data using a questionnaire, which was designed to collect objective data. The researcher developed the questionnaire and distributed it to respondents from Jubilee Insurance Company Limited. The questionnaire contained closed questions, which were rated on a Likert scale. To ensure that respondents had privacy and independence in filling out the questionnaire, the drop-and-pick method was used.

PARTICIPANTS

Standard and stratified sampling methods were utilized in this study, and a total of 367 questionnaires were distributed to the respondents. However, 14 questionnaires were excluded from the analysis due to incomplete responses, leaving a total of 353 questionnaires that were used for data analysis. The details of the sample size are presented in Table 1.

TABLE 1
THE DISTRIBUTION OF THE SAMPLE INDIVIDUALS ACCORDING TO THE VARIABLES

Variable	Level	Participants #	Percentage
Faculty	Education	160	45.3
	Science	193	54.7
	Total	353	100.0
The academic level of student	1st year	74	21.0
	2nd year	162	45.9
	3rd year	91	25.8
	4th year	26	7.4
	Total	353	100.0
Grade Point Average	Excellent	66	18.7
	Very good	110	31.2
	Good	136	38.5
	Acceptable	41	11.6
	Total	353	100.0

As per the presented table, there are three main observations. Firstly, the majority of the sampled individuals (54.7 percent) belong to the faculty of Science, while the rest (45.3 percent) belong to the Education faculty. Secondly, the largest percentage of sampled persons (45.9 percent) were in their second year of study, while the smallest percentage (7.4 percent) were in the fourth year. Finally, the highest proportion of sampled individuals (38.5 percent) received a "really fine" GPA, while the lowest percentage (11.6 percent) received a “reasonable” GPA. These findings provide important insights into the

demographic and academic characteristics of the sampled population, which can be useful for further analysis and interpretation of the study results.

INSTRUMENTATION

The researchers used two scales. The first one is the scale of psychological stress, developed by the literature review and previous studies such as Derany's study in 2003. It, moreover, included three fields: a physiological field containing 16 terms, a mental field containing 12 terms, and a psychological field containing 17 terms, so there have initially been 45 terms.

The second tool used is the locus of control scale, which was translated to Arabic and coded by Barhoom (1999). It had 29 pairs of terms, the terms (1, 3, 4, 5, 14, 10, 11, 12, 13,15, 19, 22, 26, 28) are about the internal locus of control, while the terms (2, 6, 7, 8, 9, 16, 17, 18, 20, 21, 23, 24, 25, 27, 29) are about the external locus of control.

The Scales Validity

To ensure the validity of the scales, the researchers presented the words to many experts at Al-Ain University for Science and Technology and asked them to convey their opinions on their linguistic correctness and appropriateness for the region. As a result, some words have been changed to reflect their viewpoints.

The Scale Reliability

The psychological stress and locus of control scales were found to be accurate using the test-retest process. They were administered to (50) students randomly selected from the survey and then retested two weeks later. As seen in Tables 2 and 3, the reliability coefficients for both scales were calculated using three accurate methods (test-retest, Split-half form, and Cronbach's alpha).

TABLE 2
THE RELIABILITY COEFFICIENT VALUES OF THE PSYCHOLOGICAL STRESS SCALE USING THE THREE RELIABLE METHODS

NO.	**Field**	**Reliability methods**		
		Test-retest	**Split-half method**	Cronbach's alpha
1	Physiological field	**0.89**	0.75	0.83
2	Mental field	**0.90**	0.76	0.86
3	Psychological field	**0.91**	0.69	0.89
4	Total measurement	**0.95**	0.92	0.92

TABLE 3
THE RELIABILITY COEFFICIENT VALUES OF LOCUS OF CONTROL SCALE USING THE THREE RELIABLE METHODS

NO.	**Locus of control**	**Reliability methods**		
		Test-retest	**Split-half method**	Cronbach's alpha
1	Internal locus of control	**0.72**	0.75	0.81
2	External locus of control	**0.77**	0.79	0.84
Total measurement		**0.78**	0.84	0.90

RESULTS

First: The Results of the First Question: What is the Level of Psychological Stress Among the Students of Al-Ain University from the Students' Point of View?

To answer this question, means and standard deviations of the individuals' answers have been measured, as table 4 shows:

TABLE 4
MEANS AND STANDARD DEVIATIONS OF THE INDIVIDUALS' ANSWERS ABOUT THE FIELDS OF THE PSYCHOLOGICAL STRESS FIELD

Rank	Number	Field	mean	Standard Deviations	Stress level
3	1	Physiological field	1.99	0.61	Low
1	2	Mental field	2.70	0.83	Medium
2	3	Psychological field	2.32	0.69	Low
Whole scale			2.34	0.67	Medium

As shown in the figure, students experience moderate levels of public tension, with the mean of the stress scale being (0.67 2.34). Additionally, it demonstrates that the mental field ranked first in terms of stress level (mean 0.83 2.70), indicating that mental stress is moderate among students. Second, the psychological sector mean is (0.69 2.32), indicating that psychological tension is relatively low among students. The physiological area ranked third with a mean of (0.61 1.99), indicating that physiological stress is low among students. The means and standard deviations of every field term is calculated, as seen in tables 5 6 and:

TABLE 5
MEANS AND STANDARD DEVIATIONS OF THE PHYSIOLOGICAL FIELD TERMS

Rank	Number	Term	Mean	Standard Deviations	Evaluation degree
1	15	I itch my different body parts.	2.92	1.44	Medium
2	12	I eat too much.	2.88	1.28	Medium
3	1	I feel that some of my body parts are clotted or crawled.	2.27	1.07	Low
3	17	I feel exhausted when I get up.	2.27	1.07	Low
5	4	I stammer while talking.	2.13	1.19	Low
5	20	It is difficult to express my thoughts	2.13	1.19	Low
7	9	I have a feeling of inability to achieve my ambitions.	2.08	1.06	Low
8	10	I prefer exaggeration.	2.05	1.07	Low
9	16	I feel that some of my body parts are painful.	1.99	0.61	Low
10	5	I feel that my chest, especially my heart, is painful.	1.98	0.91	Low
11	13	I feel others hate me.	1.89	1.29	Low
12	2	I continuously move my eyelids.	1.82	0.92	Low
12	18	I continuously lose weight.	1.82	0.92	Low
14	7	I always have a stomachache.	1.80	0.84	Low

Rank	Number	Term	Mean	Standard Deviations	Evaluation degree
15	11	I have the feeling of losing a lot of life changes due to my inability to make the proper decision.	1.70	1.03	Low
16	8	It is not easy to swallow my saliva.	1.61	0.95	Low
17	3	I apply pressure on my teeth while reading or working.	1.59	0.97	Low
17	6	I have constipation and diarrhea.	1.59	0.96	Low
17	19	I feel that I have tachycardia.	1.59	0.97	Low
20	14	I feel that my hands are sweaty and cold while sitting for exams.	1.55	0.74	Low
Whole physiological field			1.99	0.91	1.99

According to Table 5, the mean of the research sample's responses to words in the physiological area is about (M=1.55- M=2.92). The top scoring expression is the fifteenth, "I itch my different body parts" with a mean (1.44 2.92) and a medium performance level. The 14th word, "I feel as if my hands are sweaty and cold when sitting for tests," has the lowest score (0.74 1.55) and a poor evaluation standard. The mean of the whole field is (1.99).

TABLE 6
MEANS AND STANDARD DEVIATIONS OF THE MENTAL FIELD TERMS

Rank	Number	Field	Mean	Standard Deviations	Stress level
1	6	I feel that I can't stop thinking about worrying matters.	3.51	1.50	Medium
2	7	I feel I'm not as clear-minded as I used to be.	3.50	1.32	Medium
3	4	I always wander.	3.40	1.32	Medium
4	9	I sometimes forget the events.	3.20	1.46	Medium
5	11	It is difficult for me to forget the painful memories.	3.00	1.42	Medium
6	1	I sound as if I can't avoid stressing about worried things	3.51	1.50	High
7	8	I have the feeling of losing a lot of life changes due to my inability to make the proper decision.	2.52	1.33	Medium
8	12	I am not able to concentrate.	2.37	1.05	Medium
9	2	I feel confused.	2.27	1.21	Low
10	10	I find it difficult to understand what I read.	2.10	1.05	Low
11	5	I feel the weakness of focus while listening to others.	2.03	0.97	Low
12	3	I always bite my fingernails by my mouth.	1.82	1.16	Low
Whole mental field			2.70	0.83	Medium

The preceding table demonstrates that the means of the research sample's responses to words pertaining to the mental field range between (1.82-3.51). The best ranking phrase is the sixth, "I feel that I cannot stop thinking about worrying matters," with a mean score of 1.50 3.51 and a moderate assessment level. The third word, "I always bite my fingernails," has the lowest score (1.16 1.82) and a poor evaluation standard. The mean of the whole field is (2.70).

TABLE 7
MEANS AND STANDARD DEVIATIONS OF THE PSYCHOLOGICAL FIELD TERMS

Rank	Number	Field	Mean	Standard Deviations	Stress level
1	16	I feel frightened while thinking about important issues.	3.50	1.37	Medium
2	11	I get angry when I wait.	3.20	1.49	Medium
3	5	I always blame myself due to some deeds.	3.00	1.15	Medium
4	1	I angrily handle troubles.	2.90	1.00	Medium
5	7	It is difficult for me to join others on their occasions.	2.36	1.30	Medium
6	8	I have a feeling of inability to achieve my ambitions.	2.35	1.42	Medium
7	15	I am not satisfied with myself.	2.27	1.17	Low
8	4	I always feel inadequate.	2.23	1.20	Low
9	6	I get angry for the silliest reasons.	2.12	1.28	Low
9	14	I feel confused even in simple situations.	2.12	1.17	Low
10	9	I prefer exaggeration.	2.07	1.10	Low
11	13	I feel alone with others.	2.01	1.23	Low
12	10	I feel that others hate me.	1.90	0.89	Low
13	2	I tend to destroy everything when I get angry.	1.86	1.24	Low
14	3	I always have terrible dreams.	1.78	0.93	Low
15	12	I desire to cry for no reason.	1.75	0.99	Low
Whole psychological field			2.32	0.69	Low

The preceding table demonstrates that the means of the research sample's responses to psychological words range from (1.75-3.50). The best ranking word is the sixteenth, "I feel fearful as I consider critical topics," with a mean score of 1.37 3.50 and a medium rating standard. The lowest ranking word is the 12th, "I desire to weep for no cause." It has a mean score of (0.99 1.75), indicating a poor rating standard. The mean of the whole field is (2.32).

Second: The Results of the Second Question: Is the Locus of Control Among the Students of Al-Ain University Internal or External?

To answer this question, frequencies and percentages of the sample have been measured, as table 8 shows:

TABLE 8
REPETITION AND PERCENTAGES OF THE LOCUS OF CONTROL AMONG THE STUDENTS OF AL-AIN UNIVERSITY FOR SCIENCE AND TECHNOLOGY

locus of control	Repetition	Percentages
Internal	209	59%
External	144	41%

According to the preceding table, the survey individuals' internal locus of control is (59 percent), while their external locus of control is (41 percent).

Third: The Results of the Third Question: Is There a Statistically Significant Relation at the Indication (α= 0.5) Between Psychological Stress and Locus of Control?

To answer this question, the Pearson Correlation coefficient between the psychological stress and locus of control have been measured, as table 9 shows:

TABLE 9
PEARSON CORRELATION COEFFICIENT AND STATISTIC INFERENCE BETWEEN THE PSYCHOLOGICAL STRESS LEVEL AND LOCUS OF CONTROL AMONG THE STUDENTS OF AL-AIN UNIVERSITY FOR SCIENCE AND TECHNOLOGY

Number	**Correlation coefficient**	**Significance level**
553	0.11	0.03

Table 9 demonstrates a statistically important positive relationship between psychological stress and locus of control for Al-Ain University for Science and Technology students.

DISCUSSION

The degree of psychological tension among students was medium, with a mean of 2.34. For this reason, it is believed that the intellectual burden generated by tests, courses, and teaching personnel at the university allows students to learn, face pressures, and be responsible. Although these research findings align with the studies of Ross, Clarke, and Al-Bouserie (2005), they disagree with the results from the Beech (2005) study, which observed that the degree of psychological stress is low among students. Furthermore, our findings showed that stress levels vary in different psychological areas. The mental sector was ranked first with a medium stress level, and may be due to learning difficulties such as tests, tasks, lectures, competition with others, registering in classes, and teaching workers teaching practices, all of which contribute to complexity. The findings of this study differ from those of Beech's (2005) study, which revealed a low level of tension in the mental sector among the study participants. The physiological area came in second, with a low-stress rating which was due to the youth's vitality and their right physiological hand. As a result, even though they are mentally exhausted, their physical resilience allows them to maintain control of the situation.

The study revealed that most students had an independent locus of authority, with the researchers attributing the proportion (59%) to their reliance on their internal ability to excel. Furthermore, their successes are the product of their skills, good preparation, and proper execution, and they can excel because of their abilities. Their accomplishments result from their abilities, successful planning, and proper implementation, and they can succeed due to their internal energy, which necessitates strong will, proper organization, meaningful evaluation, and recognition that their failure is due to a lack of readiness. These results and the results from Wright and Clarke (2007), which found that students had an intrinsic locus of influence, are identical.

The study showed a statistically relevant association between locus of control and psychological stress levels, implying that the higher the psychological stress, the more external the locus of control. According to the researchers, increased stress suggests improper organization, as stressed students attribute their desire to learn and achieve good grades to external influences such as chance, families, and teachers, which they do not recognize. These findings align with those from other research papers. Wright and Clarke (2007) observed a positive relationship between internal LOC and relaxation. Beech (2005) observed a positive relationship between the external LOC and the behavior of psychological stress. Ross, Clarke, and Al-Bouserie (2005) observed a relationship between LOC and psychological stress. Al-Bouserie (1994) showed a positive relationship between LOC and psychological stress.

IMPLICATIONS

People with an internal LOC will alter their behavior after enhancements. The locus of influence in organizations has been studied using the Internal/External (I-E) scale of Rotter (1966), where high scores represent an external control locus, and low scores reflect an internal control locus (Phares, 1976). Phares (1976) declared that the Internal/ External scale was a rough measure and called for the creation of domain-specific measures by researchers. However, various researchers have adequately questioned this practice because the instrument failed to quantify work-related variables.

RECOMMENDATIONS

The researchers suggest the following in light of the study's findings:

- Establishing a clinical and instructional guidance department in each Faculty, with the department's duties including guidance programs and psychological consultation.
- Establishing an instructional guidance center in each Faculty, whose duty is to direct students academically.
- Include educational classes and seminars that concentrate on holistically caring for the psychological, emotional, behavioral, and social facets of the student's personality.
- Given other factors, universities should perform additional research on this study subject.

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