

## **COGNITIVE FAILURE AND GENERAL WELL-BEING AMONG IT PROFESSIONALS**

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### **Abstract**

Cognitive failures are defined as failures in perception, memory, and motor functioning, in which the action does not match the intention (Broadbent, Cooper, FitzGerald, & Parkes, 1982). Cognitive failures are the inability to successfully perform tasks that one might typically be able to do on a daily basis. General Well-being is a dynamic state characterized by a reasonable amount of harmony between an individual's abilities, needs and expectations and environmental demands and opportunities (Levi, 1987). The aim of the study is to explore the association between cognitive failure and general well-being among IT professionals. To measure cognitive failure, the Cognitive Failure Questionnaire (CFQ) developed by Broadbent, Cooper, P. FitzGerald and Parkes (1982) was used. The tool used to measure general well-being is PGI-General Well-being scale developed by Verma and Amita Verma (1989). The sample consisted of 112 IT professionals from different IT companies in and around Moovattupuzha. The data was collected using convenience sampling. Results revealed that cognitive failure and general well-being are negatively related.

**Keywords: Cognitive Failure, General Well-being, IT Professionals**

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## 1. Introduction

Cognitive failures are defined as failures in perception, memory, and motor functioning, in which the action does not match the intention [1]. Cognitive failures are the inability of a person to successfully perform tasks that one may be able to do routinely. Some examples include missing appointments due to forgetting and leaving mails without answering for days, failure to pay attention to street signs, and having to reread passages of text. Such failures in daily activities are due to underlying problems in general cognitive functions related to distractibility and memory. Thus, cognitive failures include numerous types of execution lapses: lapses in attention (i.e., failure in perception), memory (i.e., failures related to information retrieval), and motor function (i.e., the performance of unintended actions, or action slips)[11]. While cognitive failures occur frequently and many do not produce any serious consequences, some—under specific circumstances—will result in accidents. Sometimes, people fail to notice a thing they are searching for even when it is within their visual field. Cognitive failure increases the rate of accidents.

General well-being is a dynamic state characterized by a reasonable amount of harmony between an individual's abilities, needs and expectations and environmental demands and opportunities [4]. It transcends the limitations of body, space, time and circumstances and reflects the fact that one is at peace with one's self and others [2]. General well-being is defined as the condition of an individual regarding his or her social, economic, psychological, spiritual or medical state. High level of general well-being indicates that the person's experiences are positive and low level of general well-being represents the negative happening in a person's life. One way to inculcate well-being into an individual is through one's assessment of their one's environment and emotions and developing an interpretation of their own personal self. According to WHO, health is defined as the —complete state of physical, mental and social wellbeing and not merely the absence of infirmity[10]. Physical wellbeing explains about the ability to function normally in activities such as dressing, bathing, eating etc. Mental wellbeing indicates intact cognitive functioning and the person is free from fear, stress, depression, anxiety and other negative emotions. Social well-being implies the person's ability to engage in societal activities and involve in social interactions.

Wallace&Vodanovich, investigated on Workplace safety performance with reference to conscientiousness, cognitive failure, and their interaction found that cognitive failure moderated the relationship between conscientiousness and accidents and unsafe work behaviours. Results also suggested that cognitive failure played an important part in individual safety behaviour, especially when conscientiousness is low [9]. Kesavachandran,, Rastogi, Das, M., & Khan revealed that working conditions and health among employees at information technology - enabled services identified that musculo-skeletal disorders, ocular disorders and psycho-social problems were some of the key health problems observed among software professionals.

## **2. Research Method**

### **Aim**

The aim of the study is to explore the association between cognitive failure and general well-being among IT professionals.

### **Objectives**

1. To study the relationship between cognitive failure and general well-being among IT professionals.
2. To reveal the relative significant differences that the demographic variables make in the context of cognitive failure and general well-being.

### **Hypotheses**

H<sub>1</sub>: There will be a significant relationship between cognitive failure and general well-being among IT professionals.

H<sub>2</sub>: There will be a significant difference in cognitive failure and general well-being based on gender.

H<sub>3</sub>: There will be a significant difference in cognitive failure and general well-being with regard to marital status.

H<sub>4</sub>: There will be a significant difference in cognitive failure and general well-being based on the educational qualification.

### **Tools**

To measure cognitive failure, the Cognitive Failure Questionnaire (CFQ) developed by Broadbent, Cooper, P. FibGerald and Parkes was used [1]. It encompassed of 25 items and the

response categories include —Very Quiet, Very Often, Often, Occasionally, Very Rarely and Never. The test-retest reliability of the summated CFQ score was found to be 0.71. There is good evidence for the concurrent validity of the scale (Wallace et al., 2002) (as cited by McMohan, Green & Skeaff) [5].

The tool used to measure general well-being is PGI-General Well-being scale developed by Verma and Amita Verma [8]. It comprises of 20 items. The split half coefficient of reliability was found to be 0.98. The scale showed relative independence of other variables as expected but showed significant relations with another well-being scale, with quality of life scale, and to some extent with learned helplessness (Verma et al. (1983, 1989); Mudgil, 1986). The scale was correlated significantly with Bradburn scale (Verma, A., Mahajan, A., & Verma, S. K.) and general satisfaction level rating [8].

### Sample and Procedure

The sample consisted of 112 IT professionals from different IT companies. The data was collected using convenience sampling. The participants were asked to fill the questionnaire with their genuine responses.

### 3. Results and Analysis

Table 3.1 shows the correlation between the cognitive failure and general well-being among IT professionals

COGNITIVE FAIL	GENERAL WELL-BEING ( $\rho$ )
Cognitive Failure	-0.34*

Note: NS= Not Significant; \*= Significant at 0.05

From table 3.1, it can be seen that the Spearman correlation value between cognitive failure and general well-being is  $-0.34 (p < 0.05)$  which indicates that there is a significant negative

relationship between cognitive failure and general well-being of IT professionals. This may be because as the IT professionals work under very stressful and taxing conditions. According to Reason, the stress factors affect a person's pattern of cognition, increasing the ratio of absent-mindedness and simultaneously resulting in the performance of an improper strategy in dealing with a stressful situation [6]. This ultimately affects their well-being.

Table 3.2 shows the difference in Cognitive Failure and General Well-being based on gender

Variables	Gender	N	Mean Rank	U
Cognitive Failure	Male	66	52.70	1267.00 <sup>NS</sup>
	Female	46	61.96	
General Well-being	Male	66	59.03	1351.00 <sup>NS</sup>
	Female	46	52.87	

Note: NS= Not Significant; \*= Significant at 0.05

From table 3.2, it is found that there is no gender difference in cognitive failure and general well-being among IT professionals. This may be because nowadays both males and females are working and therefore they share the household chores as well. IT professionals irrespective of their gender do similar work, undergo same amount of pressures and deals with similar workload. So, both of them are almost equally stressed out.

Table 3.3 shows the cognitive failure and general well-being between single and married IT professionals

Variables	Marital Status	N	Mean Rank	U
Cognitive Failure	Single	98	55.63	600.50 <sup>NS</sup>

	Married	14	62.61	
General Well-being	Single	98	55.97	634.50 <sup>NS</sup>
	Married	14	60.18	

Note: NS= Not Significant; \*= Significant at 0.05

From table 3.3, it is seen that there is no significant difference in cognitive failure and general well-being based on their marital status. According to Seligman's well-being theory relationship is one of the elements that help to maintain well-being[7]. Building positive relationships with one's parents, siblings, peers, and friends are important to spread love and joy. During hardships, strong relationships give a person support, care and enough strength to sustain it. So, maintaining healthy friendship is vital rather than the marital status.

Table 3.4 shows the cognitive failure and general well-being among diploma, degree and post graduate holders

Variables	Qualification	N	Mean Rank	H
Cognitive Failure	Diploma	6	68.67	1.47 <sup>NS</sup>
	Degree	76	54.30	
	Post-Graduation	30	59.63	
General Well-being	Diploma	6	73.83	1.84 <sup>NS</sup>
	Degree	76	55.80	
	Post-Graduation	30	54.80	

Note: NS= Not Significant; \*= Significant at 0.05

From table 3.4, it is found that there is no significant difference in cognitive failure and general well-being with regard to educational qualification. This may be because rather than the educational qualification, a fulfilling career is essential for the general well-being. A rewarding and stimulating career can provide satisfaction to the employees which ultimately results in general well-being.

#### **4. Conclusion**

The present study provides an understanding regarding the relationship between cognitive failure and general well-being. Other variables like achievement motivation, mental health and self-efficacy of IT professionals can be studied. Larger sample size can be included in the future research for accurate results. It is highly required to develop general well-being among employees to avoid cognitive failure and accidents. Thus, life skills training should be provided to the employees so that they can deal with their stress effectively.

#### **Limitations**

1. The sample consisted of IT professionals from only three companies.
2. Only limited generalization is possible due to sample size and the non-probability sampling.

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