The International Journal of Indian Psychology
ISSN 2348-5396 (Online) | ISSN: 2349-3429 (Print)
Volume 9, Issue 3, July- September, 2021
DIP: 18.01.002.20210903, DOI: 10.25215/0903.002
http://www.ijip.in

Research Paper

# A Comparative Study of Emotional Intelligence and Self-Efficacy among Diabetic and Non-diabetic persons

Papita A. Bagde[1]*, Dr. K.P. Nimbalkar[2]

## ABSTRACT

Diabetes is the most chronic disease affecting people physically and psychologically. Researches indicate that people struggling from diabetes face multiple challenges of self-caring, monitoring and managing their life. The purpose of this study is to compare self-efficacy and Emotional Intelligence among Diabetic and Non-diabetics. The Self-efficacy scale and Emotional Intelligence inventory were administered on 60 individuals (30 diabetics and 30 non-diabetics). The results indicate that Diabetics and Non-diabetics differ significantly in Self-efficacy and Emotional intelligence and also revealed significant relationship between them.

***Keywords:*** *Diabetes mellitus, Non-diabetics, Diabetics, Emotional intelligence, Self-efficacy*

Diabetes mellitus is considered as one of the most chronic diseases of 21st century which is spreading rapidly all over the world. It is a condition in which human body is unable to respond or produce insulin properly resulting in abnormality in metabolism of carbohydrates and elevated levels of glucose in the blood. American Diabetic Association (2010) gives the classification of diabetes as Type 1(Insulin dependent), Type 2 (Non-insulin dependent), Gestational diabetes and some other specific forms of diabetes. The deficiency of Type 1 diabetes is caused because the β cells in pancreas are destroyed and hence pancreas is unable to produce insulin. Mostly it is found in children and in adolescence and its onset is sudden. Patients suffering from Type 1 diabetes needs to take regular insulin injections. Type 2 diabetes is a disorder of middle age and old age. In this, cells fail to use insulin properly. Insulin level increases or decreases in the blood from the normal range i.e. less than 140 Mg/dl (Kathleen, 1994). Gestational diabetes is defined as "any degree of dysglycaemia that occurs for the first time or is first detected during pregnancy" (Metzger *et al* 1998). Women suffering from this are on high risk of developing Type 2 diabetes in their future life. Other specific types of diabetes include defects of β cell dysfunction, genetic defects, defects of insulin action, hormonal imbalance, surgery, disease of exocrine pancreas etc.

[1]Research Scholar, Department of Psychology, PGTD, RTM Nagpur University, Nagpur, Maharashtra, India
[2]Ex. Head, Dept of Psychology, Yeshwant Mahavidyalaya, Wardha, Maharashtra, India
*Corresponding Author

**Received: May 14, 2021; Revision Received: July 02, 2021; Accepted: July 31, 2021**

The data given by International Diabetes Federation, estimated that approximately 463 million people worldwide are suffering from diabetes and was projected to increase up to 700 million by 2045. This gives a clear indication about the tremendous growth of diabetes in the whole world. India is considered as a second most Country after China which is affected by Diabetes. Approximately 77 million population of India is struggling with this chronic disease (International Diabetes federation, 2019). The main cause of this increased ratio in India is the increased evidences of Type -2 Diabetes which is caused by mainly urbanization, lack of awareness about the disease, costly treatment, less health care facilities and change in lifestyle.

Many physiological factors like viral infection or autoimmune reactions and genetic involvement are associated with diabetes. Diabetes is related with the thickening of arteries and hence it shows high rate of coronary heart diseases. It may also associate with eye sight problem, nervous system damage and high or low blood pressure (Taylor, 2007). Researchers suggest that psychological factors are also implicated in Diabetes. Some of the studies projected that initially healthy persons who experience stress, depression or anxiety and emotional instability have more chance of developing diabetes than others. With this notion the patients of Diabetes have higher stress than the Non-diabetic person. Among all the psychological factors, stress and depression are well studied but there are many other factors also which are related with this disease. Keeping this point in view, present research efforts are made to study Emotional intelligence and self-efficacy and its association with diabetes.

Emotional intelligence is related with the ability to perceiving, using, managing and understanding emotions (Mayer & Salovey, 1997). It is useful in controlling health behaviors which influences health outcomes. It is an important factor deals with quality of life which directly impacts over individuals mental health (Narimani *et al* 2012). The concept of emotional intelligence is very useful in intervening and managing various disorders. Similarly, it is useful in the management of Diabetes. Daniel (1948) suggested that emotions play very important role in diabetes control. Emotional Intelligence influences Self-Management of Diabetes and provides a better understanding for glycemic control (Annmarie, 2001). The emotional intelligence program may have positive effects on quality of life and well-being of individuals with type 2 diabetes (Yalcin *et al* 2008). It has been seen that people with a high level of Emotional intelligence can manage their emotions in effective manner, solve emotional problems more successfully and capable to manage stressful situations. Hence they are more productive and positive in their family and social relations (Matthews & Zeidner, 2000).

Self-efficacy is defined as “the strength of one's belief in one's own ability to complete tasks and reach goals”. Psychologists have studied self-efficacy from various perspectives like the factors related with the development of self-efficacy; the dynamics of self-efficacy, and reasons for the lack of self efficacy in different situations. According to Bandura’s theory people with high self-efficacy believe that they can perform well in the difficult tasks. This tendency helps in developing the confidence in them. Self-efficacy helps the patients in developing the confidence in their ability to perform certain health behaviors. Padgett (1991) observed that Behavioral and psychological factors are strongly associated with self-efficacy beliefs then disease related factors. Havermans *et al* (1991) suggested that Locus of control and self-efficacy measures (personal responsibility, safety and communication) are significantly related in case of diabetics. A research done by (Mohebi *et al* 2013) explore the

role of self-care in controlling of diabetes disease and suggested that Self-efficacy can induce motivation directly which promote health behavior through efficacy expectations So, self-efficacy is very important in changing self-care behavior process. Dehghan *et al* (2017) observed that Self-efficacy rate is lower in diabetic person which is unsatisfactory in terms of self-care. Self-efficacy is considered as a responsible factor that can be degenerated in chronic diseases like Diabetes. Increasing in self-confidence levels of diabetic patients can set the stage for glycemic control. So, self-efficacy is very important factor to change behavior process of person. Mishali et *al* (2011) suggests that self-efficacy plays a role in clinical outcome due to its impact on adherence to treatment. So, measurement of self-efficacy in diabetic people may be a first step in intervention.

Emotional intelligence and self-efficacy both are helpful in intervention and management of diabetes, however very less work is done on these factors together. Hence the present study aims to study emotional intelligence and self-efficacy among diabetics and non-diabetic patients.

***Problems***

- Does self-efficacy affect diabetic people?
- Do Diabetics show low self-efficacy comparing to Non-diabetic people?
- Does Emotional intelligence play any role in Diabetes?
- Do Self-efficacy and Emotional intelligence show any relationship among Diabetics and Non-Diabetics?

***Objectives***

- To examine effect of self-efficacy among diabetic and Non-diabetic people.
- To study impact of emotional intelligence in diabetic and Non-diabetic people.
- To compare Self-efficacy and Emotional intelligence in Diabetic and Non-diabetic people.
- To observe the relationship of self-efficacy and emotional intelligence in Diabetics and Non-diabetic person.

***Hypotheses***

Non-diabetic persons will show higher self-efficacy with comparing to diabetic persons.
Non-diabetic persons will show better emotional intelligence than diabetic persons.
Emotional intelligence and self-efficacy may reveal positive relationship among diabetics and non-diabetics.

## METHODOLOGY

***Tools***

- **Emotional Intelligence Inventory (EII):** This Inventory constructed and standardized by S. K. Mangal and Shubhra Mangal (2012) to measure Emotional Intelligence in 4 areas namely Intra-personal Awareness, Interpersonal Awareness, Intra-personal Management and Interpersonal Management. It contains 100 items and subjects have to give their responses in yes or no manner. Reliability of the test by split half method is 0.89 and validity is 0.43 to 0.71.
- **Self-efficacy Scale (SES):** This scale is developed and standardized by Dr. G. P. Mangal and Dr. Raj Kumari Bhatnagar (2012). It consists of 22 items dealing with Self regulatory skills, self influence, self confidence, social achievement, self, self

evaluation self esteem and self cognition. It is a five point scale suitable for any age group above 14 years. Subjects have to give their responses in strongly agreed, agree undecided, disagree and strongly disagree manner The reliability of this scale by test retest method is 0.73 to 0.81 in male and 0.79 to 0.86 in female. Concurrent validity is 0.73 to 0.81 in male and 0.76 to 0.83 in female.

***Sample***

According to the aim of the study, data was selected from 30 diabetics and 30 Non-diabetic people. For selecting diabetic patients purposive sampling method was used. For choosing the sample the doctor's diagnosis criteria was applied.

***Research design***

To examine the difference between the means of Non-diabetic and diabetic people method of two group design was used. To examine relationship between the variables Product Moment correlation was used.

***Procedure***

In the present study 30 Diabetic and 30 Non- diabetic people were selected from Wardha City by using purposive sample method. Before administration of the tests, clear instructions about the tests were given and told them that they could ask questions if they face any difficulty in understanding the statements given in the tests. First the Emotional intelligence inventory and then Self-efficacy scale was administered individually on the selected subjects. They were also informed that their responses will be used only for the research purpose. After Data collection scoring was done manually by using scoring key.

***Statistical Analysis***

After scoring of the Data collected in the present research, it was put to the statistical treatment. Mean and standard deviation and derived 't' of the self-efficacy details are given in table- 1.

***Table 1: Mean, SD and 't' value of Self efficacy***

| **Non-diabetic** | **Diabetic** |
|---|---|
| **N = 30** | **N = 30** |
| **Mean = 70.23** | **Mean =** 65.23 |
| **SD =** 2.83 | **SD = 6.36** |
| **t = 4.09**** | |

**** P < .01**

The Mean of Self-efficacy of Non-diabetics is 70.23 is greater than the mean of diabetic persons' mean 65.23 indicates that Self-efficacy of Non-diabetics persons is greater than the diabetic persons and 't' value is significant at 0.01 level.

**Table 2: Mean, SD and 't' value of Emotional intelligence**

| **Non-diabetic** | **Diabetic** |
|---|---|
| **N = 30** | **N = 30** |
| **Mean = 72.83** | **Mean =** 67.66 |
| **SD =** 7.22 | **SD = 8.67** |
| **t = 2.46*** | |

***P < .05**

Table 2 shows the mean, standard deviation and 't' value of the total emotional intelligence. The Mean of Non-diabetic people is 72.83 is greater than the mean of 67.66 of diabetic people. It indicates that Non-diabetic persons have greater emotional intelligence with comparing to diabetic people and 't' value is significant at 0.05 level of significance.

***Table 3: Correlation between Emotional intelligence and Self-efficacy***

| **Diabetics &Non-diabetics(N=60)** | **Emotional intelligence** |
|---|---|
| Self-efficacy | **r = 0.27*** |

***Significant at 0.05 level**

The result in Table-3 indicates that the correlation between Emotional intelligence and self-efficacy in the Diabetic & Non-diabetic persons is 0.27 which is positive and low and significant at 0.05 level of significance.

## DISCUSSION

The present study was carried out to study the variables namely self-efficacy and Emotional intelligence in diabetic and non-diabetic persons. The main purpose of the study is to find out whether there is any significant difference in self-efficacy and Emotional intelligence among diabetics and non-diabetic people. In present study non- diabetic persons indicate high self-efficacy with compare to diabetic person and found significant difference between diabetic and non-diabetic person in self-efficacy. These findings also supported by other studies. Diabetic people need high level of self-efficacy to manage their problems psychologically. If such training programs designed and administered to increase level of self-efficacy among the people than it may help to prevent diabetes and may bring positive changes in the life of human being.

The result revealed significant difference in Emotional intelligence among diabetic and non-diabetic persons. Mean scores of Emotional intelligences in non-diabetic person is more than diabetic persons indicate that non-diabetic person has higher Emotional intelligence as compared to diabetic persons. Emotional intelligence is a powerful predictor of our ability to manage emotions. Hence it is used in all walks of life. A study done by DeCoster & Cummings (2004) suggests that Type 2 diabetic patients show various coping methods, not a particular one is dominant. Some articles predicted that Emotional intelligence and diabetes management is positively associated with each other. The person with high Emotional intelligence coefficient is good in understanding and managing emotions and hence diabetic patients can able to take care of them in a better way. Emotional intelligence play important role in managing stress and human behavior. Studies suggest that increase in emotional intelligence can be a suitable way to reduce the distress related with diabetic management.

The present study revealed positive and significant correlation between the self-efficacy and emotional intelligence of diabetic and non-diabetic persons. Various studies are done on these two factors in the field of education which shows that both these factors are highly associated with each other. Researches done in the field of care giving and intervening diabetes through self-efficacy and Emotional intelligence emphasized on both these factors separately. These factors intervention helps to increase the level of self-confidence and well-being of the people.

## CONCLUSION

- Hypothesis one that, 'Non-diabetic persons will show higher self-efficacy with comparing to diabetic persons' is significant at .01 level.
- Hypothesis two that 'Non-diabetic persons will show better emotional intelligence than diabetic persons' is not found significant at any level of significance.
- Emotional intelligence and self efficacy have shown significant correlation.

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***Acknowledgement***

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

***Conflict of Interest***

The author(s) declared no conflict of interest.

***How to cite this article:*** Bagde P.A. & Nimbalkar K.P. (2021). A Comparative Study of Emotional Intelligence and Self-Efficacy among Diabetic and Non-diabetic persons. *International Journal of Indian Psychology*, *9*(3), 10-16. DIP:18.01.002.20210903, DOI:10.25215/0903.002