

Association of History of Psychological Problems and Negative Life Events with Diabetes Occurrence in Eslamshahr - Iran

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Abstract—Diabetes is among the common metabolic disorders in Iran. The aim of this study was to determine the association between history of psychological problems and negative life events with type 1 or 2 diabetes occurrence in Eslamshahr-Tehran, Iran. Individual questionnaire and face to face interview were used to collect the data. The data was analyzed using Chi-square test. 26%, 13% and 23% of patients with type 1 diabetes had history of psychological problem (stress, anxiety, depression and ...), negative life events (spouse drug addiction, severe disease, and ...) and death of a relative, respectively; however, 38% of patients with diabetes type 1 did not show such history. 36%, 21% and 53% of patients with type 2 diabetes had history of psychological problem (stress, anxiety, depression and ...), negative life events (spouse drug addiction, severe disease, and ...) and death of a relative, respectively. History of psychological problems, negative life events and death of a relative were among the important causes associated with diabetes occurrence in Eslamshahr – Iran.

Index Terms—Diabetes, Psychological Problems, Negative life events, Eslamshahr, Iran.

I. INTRODUCTION

Diabetes mellitus (DM), commonly referred to as diabetes, is a group of metabolic disorders in which there are high blood sugar levels over a prolonged period. Serious long-term complications include cardiovascular disease, stroke, chronic kidney disease, foot ulcers, and damage to the eyes. Diabetes is due to either the pancreas not producing enough insulin (diabetes type 1) or the cells of the body not responding properly to the insulin produced (diabetes type 2). The estimated total economic cost of diagnosed diabetes in 2012 is \$245 billion. This estimate highlights the substantial burden that diabetes imposes on society. Additional components of societal burden omitted from our study include intangibles from pain and suffering, resources from care provided by nonpaid caregivers, and the burden associated with undiagnosed diabetes. [1]-[3]

The diabetes is significantly associated with positive family history and also life style. [4] Although the specific reasons for the development of diabetes are still not well understood, traditionally, genetic and lifestyle behavior have been reported as the leading causes of this disease. In the last three decades,

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the number of diabetic patients has drastically increased worldwide, with current statistics suggesting the number is to double in the next two decades. [5] Diabetes has also high prevalence among Iranian people in different areas of Iran [6], [7]

As life style and history of life state have a pivotal role in diabetes occurrence, this study aims to investigate the association of history of psychological problems and negative life events with type 1 or 2 diabetes occurrence in Eslamshahr-Tehran, Iran.

II. MATERIAL AND METHODS

Data were collected from records of patients referred to health centers and hospitals in Eslamshahr, Tehran- Iran. Individual questionnaire and also face to face interview were used to collect the data. Information including type of diabetes and history of psychological problems were collected and analyzed using descriptive statistics and Chi-square test.

III. RESULTS

26%, 13% and 23% of patients with type 1 diabetes had history of psychological problem (stress, anxiety, depression and ...), negative life events (spouse drug addiction, severe disease, and ...) and death of a relative before diabetes occurrence, respectively; however, 38% of patients with diabetes type 1 did not show such history (Figure I).

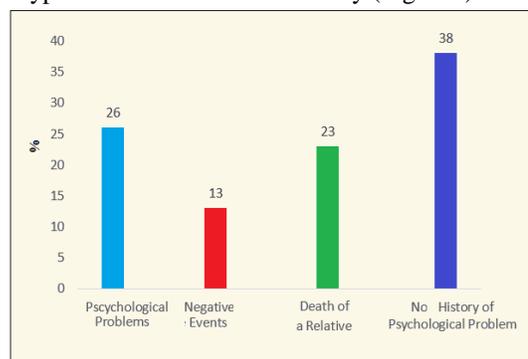


Fig 1: History of psychological problems, negative life events and death of a relative in patients with diabetes type 1 referred to health centers and hospitals in Eslamshahr, Tehran- Iran.

36%, 21% and 53% of patients with type 2 diabetes had history of psychological problem (stress, anxiety, depression and ...), negative life events (spouse drug addiction, severe disease, and ...) and death of a relative before diabetes

occurrence, respectively. The results indicated that all the patients with diabetes type 2 had a history of psychological problem, negative life events or death of a relative (Figure II).

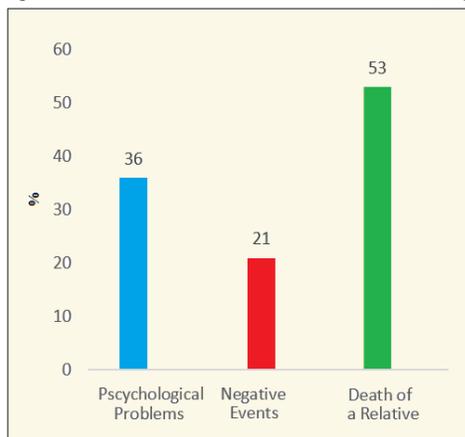


Fig 2: History of psychological problems, negative life events and death of a relative in patients with diabetes type 2 referred to health centers and hospitals in Eslamshahr, Tehran- Iran.

IV. DISCUSSION

Our findings indicated that history of psychological problems, negative life events and death of a relative were among the important causes associated with diabetes occurrence in Eslamshahr – Iran. Previous studies have shown that genders, age, marital status, education, employment, poor diet and leisure time physical activity were indirectly associated with pre-diabetes risk factors. [8] It has been found that negative psychosocial conditions, including frequent stress events and severe distress according to the psychosocial well-being index, were most strongly associated with poor self-rated health [9] which may play a role in occurrence of diseases such including diabetes. Despite some limitations, the research provide insight into the long-term association between events of anxiety and the risk of diabetes across the reproductive life of women. [10] Type D personality (high negative affectivity and social inhibition) also has been associated with increased risk of adverse health outcomes including diabetes. [11]

Our results indicated that despite type 1 diabetes, psychological problems, negative life events or death of a relative were observed in all the patients suffering type 2 diabetes. Since type 2 diabetes mainly occurs in older ages, it is conceivable that they encounter more negative experiences in their life span and report more negative experiences compared to patients with diabetes type 1. Indeed, type 1 diabetes can affect children or adults, but a majority of these diabetes cases were in children. Type 2 diabetes is primarily due to lifestyle factors and genetics. A number of lifestyle factors are known to be important to the development of type 2 diabetes, including obesity (defined by a body mass index of greater than 30), lack of physical activity, poor diet, stress, and urbanization.[12], [13].

V. CONCLUSION

History of psychological problems, negative life events and death of a relative were among the important causes associated

with diabetes occurrence in Eslamshahr – Iran.

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