



## Comparison Metacognitive beliefs and Control Strategies of Thought and Document Styles among Diabetes and Healthy People

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### ABSTRACT

The aim of this study was to compare Metacognitive beliefs and control strategies of thought and document styles in between diabetics and healthy. The study population consisted of all patients admitted to hospitals and specialized clinics of Ardabil in the first half of 2015. The research method is causal-comparative and be available for sampling. To collect the data, a documentary style (ASQ), a questionnaire metacognition (MCQ) and thought control questionnaire was used in this study. Manova test was used to examine the research hypotheses. The findings of this study showed that among the components of Metacognitive beliefs between the two groups of patients with diabetes and normal subjects there is a significant difference ( $P>0.05$ ) and the mean scores of positive beliefs about worry, uncontrollability and danger, cognitive confidence and the need to control thoughts samples from diabetic group than in normal group and only in the cognitive self-consciousness, there is no difference between the two groups. It can be concluded that due to the need to educate people with diabetes to increase their metacognitive beliefs.

### Keyword:

- ✓ *Metacognition*
- ✓ *thought control*
- ✓ *document styles*
- ✓ *diabetics*

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## INTRODUCTION

Diabetes is one of the most important and common disease that affects people of different ages (Amir, 1997) and its complications are a major cause of mortality and morbidity (Winner, 1986). Diabetes, a common chronic disease that can affect physical performance, development of complications, mental condition, and individual, family, and community, and understanding of health affect sexual function (Shirinzadeh Dastgiri, 2006). According to the World Health Organization over the next 25 years the number of people with diabetes will double, so that from 171 million in 2000 to 366 million in 2030. Iran, with a prevalence of 8%, is among the areas with the highest percentage of diabetes in the world is allocated. Diabetes is the ninth leading cause of death for men and the sixth leading cause of death in the United States and about 18 percent of people over age 25 make up (/ Reynolds and Wolz, 1999). In diabetes, the body's ability to use speed and reduced glucose metabolism of blood sugar levels increased, therefore arises is called hyperglycemia. When this sugar is present in the body in the long term microvascular complications of diabetes or tiny blood vessels in the body that can damage body organs such as the kidneys, eyes, and nerves are involved. Diabetes also increases the risk of cardiovascular disease has a direct relationship. Therefore, screening and early detection of the disease in high-risk people can prevent the risk of complications. Diagnosis and screening for diabetes with a blood glucose test is possible (Mc Farlan et al, 2013).

Cognitive psychology, its rapid progress since the second half of the twentieth century began and was in peak condition, a strong opponent like Watson had stood against it. But psychology metacognition, casting new areas of thought that to about 1970 turns (Behrad and Kamali, 2010). Understanding the intellectual currents, learn, how to organize, store and use information (Seyf, 1997). Flavell was first raised in 1979, the term metacognition. It Flavell (1979, 1978) metacognition includes cognitive processes as well as the experience or the regulation of cognition. Metacognition students to acquire knowledge about cognitive processes and knowledge about how to use cognitive control processes refers (Osvini, 2010). Flavell (1997) metacognition as awareness of how one learns, knowledge of how to use the available data to achieve a goal, ability to judge cognitive processes in a particular task, knowing the guidelines for goals use it to evaluate your progress during and after the operation has defined performance (Flavell and Miller, 1998). I think the most important attribute is the wizard of human existence and judgment. Give any credibility to the idea of identity and reality. Any resistance would be identity and ductility. Any feelings, thoughts have an impact on programming. Any belief, thought and makes you think, makes body and soul. Features think is endless. But it's most important feature robs the devil in mind and create fear and disorder in talent and opportunities and capabilities and anxiety and depression. The plurality of current thinking enemy that is fueled by the devil and Satan raging sea that always keeps up its depths not seen pearls (Hanich et al., 2011).

The documentary style of cause that the person picks for events or results and aspects of personal interpretation of his

actions. Document styles, can be internal or external. This means that the individual result or cause of action itself or external factors some document styles of a relatively stable personality variables and show how think that on the knowledge of people in your life adverse events explain. Unfortunate events happen to everyone, but different people in different ways these situations, which are the source of stability and controllability are different, they justify (Peterson and Barrett, 1987; Peterson and Park, 1998; Peterson and Seligman, 1984). As well as some of the other document styles are considered to be an attribute. The Group, document styles tend to offer explanations about the various events defines uniform. Peterson et al. (Quoted from Rajabi, Shahni Yeylagh, 2005) believe that the document styles are the two types of events: (a) (b) of positive events and negative events. Each of these events has three components: internal-external documents, records and documents related to stable-unstable global-local (Weiner, 1985).

## Methodology

The study of causal-comparative and is ex post facto. Because the investigation solidarity of all researches, which attempted to compare different variables using correlation coefficient discovered or determined in this study compared Metacognitive beliefs and control strategies of thought and style of documents between diabetics and healthy subjects studied place. The study population consisted of all patients admitted to hospitals and specialized clinics of Ardabil in the first half of 2015, which is approximately 420. Sampling random sampling study the problem and partly because it was impossible to be available. The study was causal-comparative minimum of 25 people is ideal. In this research to increase external validity and generalizability more confident 35 as the sample was selected. Samples were matched for age and sex. The data in this study are both desk and field method. To gather the terms related to the history and literature of the library are used. For data analysis study of statistical indicators such as frequency, percentage, mean, and standard deviation were used as well Manoa test was used to investigate the hypothesis.

Results

Variable	F	df1	df2	prob
positive document style	0.039	1	64	0.844
positive internal document	0.675	1	64	0.414
Positive lasting documents	0.072	1	64	0.790
Positive general documents	0.001	1	64	0.977
Negative attribution style	0.376	1	64	0.542
Negative internal documents	1.678	1	64	0.2
Negative Stable documents	0.047	1	64	0.829
Negative general documents	0.15	1	64	0.7

As can be seen in Table 4-7 significant level of error variance equality test ( $p > 0.05$ ) shows that the variances are equal, and the assumption of homogeneity of variances are not violated.

	Exam Name	the amount of	F	Hypothesis	df error	P	Chi Eta
Model	Pillai effect	0.986	6.878	6	59	0.000	0.986
	Wilks Lambda	0.014	6.878	6	59	0.000	0.986
	Hoteling effect	69.950	6.878	6	59	0.000	0.986
	The root of the error	69.950	6.878	6	59	0.000	0.986
Group	Pillai effect	0.057	0.594	6	59	0.000	0.057
	Wilks Lambda	0.943	0.594	6	59	0.000	0.057
	Hoteling effect	0.06	0.594	6	59	0.000	0.057
	The root of the error	0.06	0.594	6	59	0.000	0.057

As Table 4-8 shows all the significant levels of usability tests not permit multivariate analysis of variance. The results show that the studied groups at least one of the dependent variables, there is no significant difference. ( $p > 0.05$ ,  $F = 0.594$ , Wilks Lambda=0.943). Chi

Eta shows the difference between groups was not significant, according to the dependent variables total amount of this difference on the test Wilks Lambda 0.057, i.e. 5% of the variance of the difference between the groups dependent variable is the effect.

Variable	F	df1	df2	prob
Positive beliefs About Concern	0.057	1	64	0.811
Uncontrollability and danger	1.848	1	64	0.179
Make cognitive	0.095	1	64	0.759
Need to control thoughts	1.189	1	64	0.280
Cognitive self-awareness	0.417	1	64	0.527
metacognition total	0.096	1	64	0.757

As can be seen in Table 4-9 significant level of error variance equality test ( $p > 0.05$ ) shows that the variances are equal, and the assumption of homogeneity of variances are not violated.

	Exam Name	the amount of	F	Hypothesis	df error	P	Chi Eta
Model	Pillai effect	0.985	8.06	6	59	0.000	0.985
	Wilks Lambda	0.015	8.06	6	59	0.000	0.985
	Hoteling effect	67.168	8.06	6	59	0.000	0.985
	The root of the error	67.168	8.06	6	59	0.000	0.985
Group	Pillai effect	0.175	2.551	6	59	0.037	0.175
	Wilks Lambda	0.825	2.551	6	59	0.037	0.175
	Hoteling effect	0.13	2.551	6	59	0.037	0.175
	The root of the error	0.213	2.551	6	59	0.037	0.175

As Table (4-10) shows significant levels all the tests the usability of multivariate analysis of variance allows. The results show that the studied groups at least one of the dependent variables, there is a significant difference. ( $P < 0.05$ ,  $F = 2.551$ , Wilks Lambda=0.825). Chi Eta shows the difference between the groups with respect to outcome measures was significant and the total amount of this difference on the test Wilks Lambda 0.037, i.e. 3% of

the variance of the difference between the groups is the effect of dependent variables.

S.O.V	Variable	SS	df	MS	F	P	Ata
Model	Positive beliefs About Concern	76.379	1	76.379	4.277	0.043	0.063
	Uncontrollability and danger	117.333	1	117.333	9.390	0.003	0.128
	Make cognitive	62.061	1	62.061	5.457	0.023	0.079
	Need to control thoughts	78.545	1	78.545	7.743	0.007	0.108
	Cognitive self-awareness	3.879	1	3.879	0.358	0.552	0.006
	metacognition total	1465.47	1	1465.47	11.359	0.001	0.151
Group	Positive beliefs About Concern	76.379	1	76.379	4.277	0.043	0.063
	Uncontrollability and danger	117.333	1	117.333	9.39	0.003	0.128
	Make cognitive	62.061	1	62.061	5.457	0.023	0.079
	Need to control thoughts	78.545	1	78.545	7.743	0.007	0.108
	Cognitive self-awareness	3.879	1	3.879	0.358	0.552	0.006
	metacognition total	1465.47	1	1465.47	11.359	0.001	0.151
Error	Positive beliefs About Concern	1142.788	64	17.856			
	Uncontrollability and danger	799.697	64	12.495			
	Make cognitive	727.879	64	11.373			
	Need to control thoughts	649.212	64	10.144			
	Cognitive self-awareness	693.576	64	10.837			

As Table 4-11 shows the dimensions of positive beliefs about worry, uncontrollability and danger, cognitive confidence, the need to control thoughts and metacognition between the two groups of diabetic

patients and healthy individuals there was no significant difference ( $p < 0.05$ ) and the average scores given in the diabetic group than in normal group is among the samples. And only in the cognitive self-consciousness, there is no difference between the two groups.

Variable	F	df1	df2	prob
Distractions	0.019	1	64	0.891
Worry	1.774	1	64	0.188
Social Control	0.126	1	64	0.724
Self Spanking	0.202	1	64	0.654
re-evaluation	0.186	1	64	0.668

If there is a significant level of error in Table 4-12 equality of variances test ( $p > 0.05$ ) shows that the variances are equal

and the assumption of homogeneity of variances are not violated.

	Exam Name	the amount of	F	Hypothesis	df error	P	Chi Eta
Model	Pillai effect	0.989	1.108	5	60	0.000	0.989
	Wilks Lambda	0.011	1.108	5	60	0.000	0.989
	Hoteling effect	92.308	1.108	5	60	0.000	0.989
	The root of the error	92.308	1.108	5	60	0.000	0.989
Group	Pillai effect	0.113	1.527	5	60	0.195	0.113
	Wilks Lambda	0.887	1.527	5	60	0.195	0.113
	Hoteling effect	0.127	1.527	5	60	0.195	0.113
	The root of the error	0.127	1.527	5	60	0.195	0.113

As Table 4-13 shows significant levels multivariate analysis of variance feature all the tests not permit. The results show that the studied groups at least one of the dependent variables, there is no significant difference. ( $P > 0.05$  p,  $F = 1.527$ , Wilks Lambda = 0.887).

### Conclusion

Chronic diseases such as diabetes complicated origin, gradual onset and severity and recovery are unpredictable because of the long process, patient participation in their

care must be paid. The results showed that the components of the control strategies of thought and elements of documentary style in between diabetics and healthy subjects, no significant difference was observed. But between metacognition beliefs were significant differences in normal and diabetic individuals. Because of this relationship, it can be said that people with diabetes have misconceptions and wrong. For example, people with diabetes cannot be used until the end of sweets and

chocolates. But in fact, if in addition to a healthy diet, along with exercise, a person with diabetes cannot use the desserts and sweets. Of course it must be emphasized that the vast majority of patients with type 2 diabetes have a passion for these materials as they are sometimes the body needs them kind of food can. People with diabetes are uncontrollable due to false beliefs. Control diabetes with diet, one of the easy ways to prevent and control the disease progression disease of diabetes including features that are directly related to diet. In people with diabetes followed a special diet if not aggravate the disease and the effects can be irreversible. That's why the people with diabetes need to learn to control your thoughts and awareness of the disease.

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