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Health Beliefs Model in Enhancing the Beliefs Concerning Healthy Weight

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Abstract:

Background: Maintaining a healthy weight is difficult for most people. The build-up of extra body fat is characterized as overweight and obesity, a global health pandemic, as seen by the increasing incidence of overweight and obesity around the world.

Material and Method: True experimental design, using a randomized controlled trial method, is carried out throughout the current study to identify the efficacy of health beliefs model through intervention in changing employees' behaviors related to weight control at university of Mosul for the period from January 10 th 2024 to March 15th 2024.The study sample consisted of 80 employees, who participated in a training program for behaviors change.

Results: Findings of this study showed that the interaction based on the health beliefs model had a significant difference between the pre and post-test at P- value (0.05) and the size effect was (0.557) in favor of the beliefs for the study group, and there was a significant difference in the pre and post-test 1&2 at P-value (0.05). The differences between the averages of behavior for the two groups were (0.364) in the pre-test and post test1 and (0.328) in the post-test 2 in favor of the experiment group.

Conclusions: This study concluded that health intervention based on the health beliefs model shows the importance of maintaining weight and a positive influence on employees' health beliefs and behaviors towards weight control.

Keywords: Health Beliefs Model, Beliefs, Healthy Weight.

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Introduction

The main tenets of HBM are that individuals' level of concern about a specific health goal is what drives health behavior and that they also believe they have a good chance of achieving that goal when implementing a behavioral change. (1).The Health Belief Model was established in the 1950s by researchers at the United States Public Health Service, and it is still one of the most extensively used conceptual frameworks of health behavior among health educators, other health professionals, and psychologists today. (2).Before the availability of sensitive, specific diagnostic tests, such as X- rays of the chest for the detection of tuberculosis, many people with the disease who didn't realize they had it continued to suffer or die. In addition to making health examinations available to the entire public, a parallel trend was developed to promote the use of preventative services for example immunization and medical commitment in general. Before that, the health belief model was rooted in providing people with relevant information to raise awareness and anxiety about life-threatening illnesses, overall illnesses that could be treated with medication if diagnosed early enough. (3).Because of these health risks, Several educators wanted for people to realize that people could lower these health risks by taking certain actions. A large portion of the psychologists subscribed to the theory that people are scared of acquiring serious illnesses and are motivated to adopt health-promoting habits based on both their belief that health-related actions reflect a person's level of fear of P. threats and the expected fear reduction potential of undertaking a suggested action. To figure out whether a change in behavior leads to better outcomes, people ask whether it is practical and mentally challenging. An overall benefit is what leads people to modify their behavior to help maintain their health. (4).The concept of an individual's specific perceptions about susceptibility, benefits, barriers, and self-efficacy thus emerges as a critical aspect of the Health Belief Model. Appropriate interventions may focus on calculating the risks and expectations, and they may also include personalized advice and education. (5) One of the most well-studied models is the Health Belief Model, which was developed in the 1950s as a means of understanding the process of health-seeking behaviors. (6).The aim of the study to Apply the HBM in Changing the Beliefs Related to Weight Control Behaviors among Employees.

Methods and Materials:

True experimental design, using a randomized controlled trial method, is carried out throughout the current study to identify the efficacy of health beliefs model through intervention in changing employees' behaviors related to weight control at university of Mosul for the period from January 10 th 2024 to March 15th 2024.The study sample consisted of 80 employees, who participated in a training program for behaviors change. The study sample was selected from four colleges in University of Mosul includes Sciences, Engineering, Education, and Nursing Colleges. Random selection and random assignment are used to create the experimental (40), and (40) control group. A developing two self-report questionnaires in the present study, the first questionnaire consist of: (Health Belief Model questionnaire for weight management behavior), and socioeconomic status, and a component of health beliefs towards body weight control. And the second questionnaire consists of behavioral strategies for weight control. The intervention for the experimental group involved a health intervention lecture about weight control. Analyzed data using SPSS, Version 24 using descriptive statistics, inferential statistics, and mixed-design analysis of variance.(7-95).

Results:

Table (1): Repeated measures ANOVA tests the HBM in enhancing the Beliefs Related to Healthy Weight among employees in the University of Mosul.

HBM concepts	"Repeated Measures ANOVA Tests"			
	F	P	(η2)	O.P.
Main time effect	85.36	0.000	0.689	1.000
Between groups effect	106.40	0.000	0.577	1.000
Groups Interaction overtime	202.171	0.000	0.631	1.000

η2: Partial Eta Squared (size effect). O.P. Observed Power.

The findings of Table (1) show that the test within the main effect of time is significant (F= 85.36, p= 0.000). The significant interaction shows that the HBM among the research participants (research and control) shifts over time and changes. In this specific case, it is evident in Figure (1) that the research group increases in beliefs over time, in contrast to the control group, whose beliefs were nearly at the same level over time. Regarding the effect size, (Table 1) shows that about (0.689) of the variance from modified beliefs is responsible for the period.

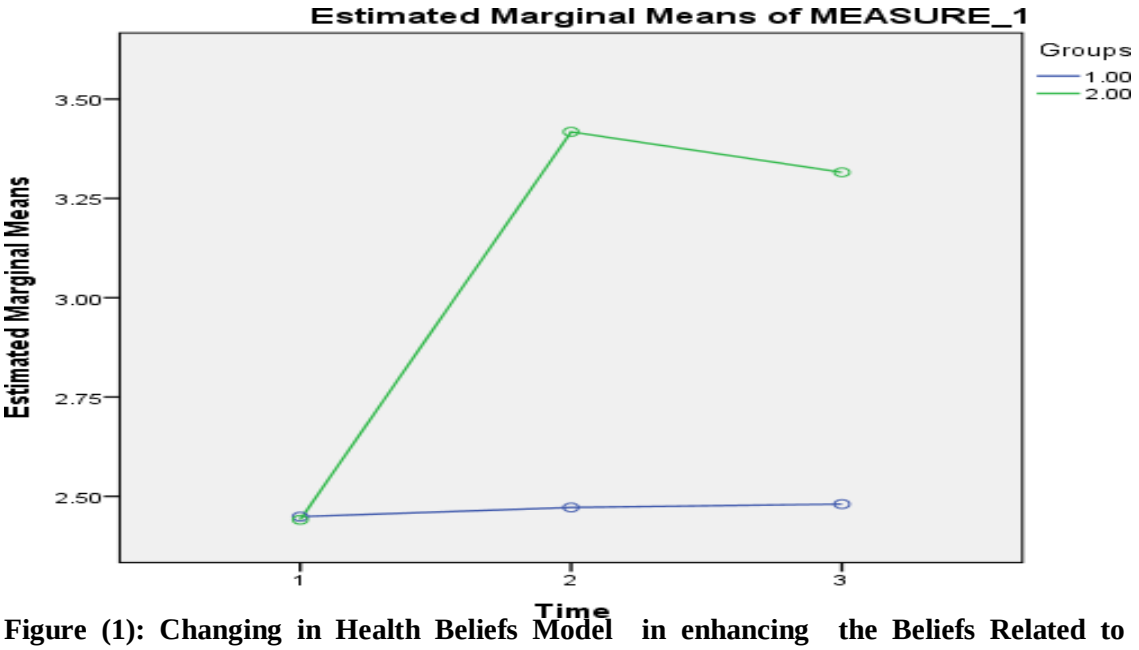

Figure (1): Changing in Health Beliefs Model in enhancing the Beliefs Related to Healthy Weigh tin University of Mosul for the study and control groups throughout the three times.

Table (2): Binary comparisons between the experimental group and the control group over time.

Dependent Variable	Mean Difference Groups	Std. Error	Sig.b	95% Confidence Interval for Difference[b]	
				Lower Bound	Upper Bound
Pre-test	**-.016**	**0.056**	**0.767**	**-0.127**	**0.094**
Post-test 1	**0.794***	**0.056**	**0.000**	**0.682**	**0.906**
Post-test 2	**0.705***	**0.052**	**0.000**	**0.601**	**0.809**

Multiple comparisons between the study group and the control group beliefs showed that there were no significant differences at 0.05 in the pre-test, while there were statistically significant differences between the experimental group and the control group in the post-test 1 and 2.

Discussion:

The Behavioral Risk Factor Surveillance System reported that the increase in the rates of overweight and obesity among adults under the age of 30 years with low educational levels, and this increase is the result of a combination of factors, including food behaviors, and the constant eating of fast food in restaurants. Eating light snacks between main meals, excessive intake of fatty foods, low physical activity, watching television and video games, and finally, unhealthy sleep behaviors, [(96)].According to the studies, there was an increase in the value of (Physical activity, dietary impulse control, dietary planning, monitoring weight, family & friend Support) over time. According to the result, there was no significant difference in the mean of employees' behaviors before the study intervention and control groups, but the difference was significant after the intervention, indicating that health education had a positive effect on changing participants' weight control behaviors. A baseline test was given to both the experimental and comparison groups before the intervention was implemented, as we described earlier in this chapter. Only the interventions were presented to the study (experimental) group participants. The findings of the pretest indicated that the mean of control

and study group members is unacceptable. This indicates that before the intervention, the participants' behaviors were low. Then, two months later, both groups were given a posttest 2 to determine the efficacy of the program of education. The primary goal of this stage was to determine whether the educational program was effective in helping study group participants maintain a healthy weight. Monitoring weight, One of the most important strategies for weight loss is to replicate the suggested daily weight for behavioral programs, and is likely to help individuals adopt weight control practices. [97].Finding techniques to lose even tiny amounts of weight can thus be clinically significant. Self-monitoring is used in the most successful weight reduction therapies to promote self-awareness about how habits affect weight. This is backed by self-regulation theory, which states that when people self- monitor and analyze their current behavior in comparison to their goals, they are better able to self-regulate their behaviors. [98] .This then either reinforces or enables self-correction. Daily self-weighing is one such self- monitoring approach. Because tiny changes in body weight can be noticed daily and modifications in food and exercise behaviors begin as a result, daily self-weighing may allow for better self-regulation of body weight than less frequent weighing. [97].In the baseline test, it was found that the participants in the study (study and comparison group) did not weigh themselves daily, but rather apart or when they had the opportunity, and there was no significant difference between the two groups when it came to weight tracking.

Conclusion:

This study concluded that health intervention based on the health beliefs model shows the importance of maintaining weight and a positive influence on Beliefs Related to Healthy Weight

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