Study Methodology

Student Name

Institution Affiliation

Study methodology

This research involved 9,666 participants, both males and females between the ages of 12 years to 150 years. Most of the participants ranged from 12 years to 75 years. The participants were considered to be in normal health. The design used in the collection of data was through random asking of the research questions and recording the data. The participants were also issued with questionnaires on the research topics. The questionnaires had choices to choose from. The variables of the research were: “are you reducing fat/calories in the diet?” and “Are you increasing physical activity?” The participants were supposed to answer to the topics to the best of their ability. The method of study used was quantitative design. The participants were expected to answer either “yes” “No” or “I don’t know”. The data were then compiled according to the respective answers to the study questions (Ann, 2008).

Results of the research

Percent	N	Value	Label
47.4	3,399	**1**	Yes
52.6	3,773	**2**	No
0.0	0	**7**	Refused
0.0	1	**9**	Don't know
	2,493	**.**	(No Data)
100.0	**9,666**		**Total**

Properties	
Data type:	numeric
Mean:	1.53
Std Dev:	.51
Record/columns:	1/39-41

Reducing fat/calories in the diet

Percent	N	Value	Label
46.5	3,339	**1**	Yes
53.4	3,833	**2**	No
0.0	0	**7**	Refused

0.0	1	**9**	Don't know
	2,493	**.**	(No Data)
100.0	**9,666**		**Total**

Properties	
Data type:	numeric
Mean:	1.54
Std Dev:	.51
Record/columns:	1/36-38

Increasing physical activity

From the data, about a quarter of the participants admitted to the research questions. On the other hand, a quarter of them refuted to the research questions. The other participants said they did not know whether they did what the research questions asked. Among the participants, one refused to answer the research question on whether they increased physical activity.

Type 2 diabetes and its association with diet and physical activity

Type 2 diabetes is a medical condition that is caused by insulin resistance. This is the most common type of diabetes where the body lacked the ability to control its sugar levels, therefore causing the body's sugar level to rise above normal. At first, the body produces a lot of insulin to regulate the sugar level, but with time the pancreas becomes incapable of producing enough insulin to keep up with the rising glucose level in the blood. This therefore leads to diabetes.

Research has found that physical activity and diet induced weight loss of 5-7% reduces the risks of developing diabetes type 2 by 58% (Thomas, 2013). The cluster-randomized study proved that physical exercise alone or diet observation alone can prevent a person suffering from impaired glucose tolerance from progressing into the type 2 diabetes. This study proves that both physical exercise, including modest weight loss and diet can reduce the incidence of diabetes.

Physical activity burns excess calories and fats in the body. These two play a big role in the incidence of type 2 diabetes (Qiao 2012). From the research, it is possible that the participants who said that they increased their physical activity have a low incidence of diabetes. On the other hand, it is also possible that those who said they did not increase their physical activity had a high incidence of type 2 diabetes. Proper diet also is important in reducing the incidence of type 2 diabetes. Intake of foods with low fat level is important (Barnet, 2011). Type 2 diabetes patients are recommended to reduce their fat intake. This would enable the body to respond by burning the excess fats in their bodies, thus reducing the harshness of the disease. The research therefore helped to analyze the level of incidence of the type 2 diabetes among individuals.

References

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