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Weight Loss Innovation with Direct and Practical Measurable Targets

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Abstract

Nutritional status is one of the factors that plays a role in achieving the quality of healthy, intelligent, productive and independent human resource performance. Factors that influence nutritional status include nutrient intake and physical activity. Guidelines for daily food consumption and the implementation of healthy behavior in Indonesia are in the form of the General Guidelines for Balanced Nutrition (PUGS) and abroad, one of which is the Traffic Light Diet. The Traffic Light diet concept in Australia is used for labeling the nutritional content of packaging at high (red), yellow (medium), green (low) levels. In an effort to improve Healthcare Workers Wellbeing, an innovation was designed that can facilitate the implementation of the selection of types of food and the implementation of physical activity according to PUGS. The purpose of this study is to achieve optimal weight loss and changes in exercise frequency. This study uses a Quasy Experimental design (pre and post test) with variables of body weight (BW), Body Mass Index (BMI), and physical activity. Initial data collection for BW and BMI from October 2022 to December 2022. Implementation of the innovation from February to March 2023. Data were analyzed using SPSS 22 with paired t-test, Wilcoxon and chi square tests. The results of this study were to select 10 Nutritionists with overweight nutritional status to implement the innovation for 8 weeks. The results of the statistical test showed a significant decrease in BB and BMI after the innovation (p 0.000 and 0.005). The results of the statistical analysis with chi square showed that the frequency of exercise was related to weight loss (p 0.033). The conclusion drawn is that innovation helps maintain diet and physical activity so that it is more effective in losing weight. Innovation can be used as a reference source to improve Healthcare Workers Wellbeing in a wider environment.

Keywords: Weight loss, Physical Activity, Food intake, Measurable Targets

Introduction

Factors that influence nutritional status include nutrient intake and physical activity. The 2013 Basic Health Research data showed high-fat eating habits of 40.7% and high-sugar drink consumption of 53.1% in adults (Ministry of Health, 2013) and vegetable and fruit consumption had not reached the balanced nutrition guidelines (<5 servings per day) 93.5%.

Another factor that influences nutritional status is physical activity. The habit of consuming high-calorie foods that are not followed by sufficient activity will form a sedentary lifestyle (Jitendra, 2011). Research shows that moderate physical activity is 0.4 times less at risk of obesity compared to the light activity group (Widianti & Tafal, 2014). The Traffic Light diet concept in Australia is included in the packaging label indicating nutrients at low, medium or high levels. Research shows a significant decrease in total

calorie intake of 5%, total fat 13%, saturated fat 14% and sodium 6% after the traffic light label (Emrich TE et al. Al, 2017).

Weight loss is directly proportional to the decrease in BMI to assess nutritional status. Failure to lose weight can be caused by the method used being less effective, causing boredom and frustration in changing eating habits and physical activity.

Method

The type of research used in this study is observational with a quasi-experimental research design (pre and post tests without a comparison group)

Results and Discussion

In an effort to maintain or reduce weight, Nutrition Installation personnel, especially Nutritionists, carry out routine weighing and the initiation of mandatory exercise 2-3 times a week routinely. The results of the evaluation of these activities obtained results that were less effective in maintaining or reducing weight. In the initial weighing results before the innovation, of the 23 Nutritionists, about half of the personnel had normal nutritional status (11 people, 47.8%), the rest with overweight nutritional status (10 people, 43.5%) and obesity (2 people, 8.7%).

The description of physical activity (sports) is seen as many as 65.2% (15 people) have a habit of exercising <3x per week. In December 2022, an easy, practical, effective innovation was made in implementing weight loss by selecting food intake and physical activity. From the data results above, 10 people with overweight nutritional status became respondents to implement the innovation.

The innovation creation process begins by compiling guidelines for food types according to 3 categories: green (recommended in the daily diet), yellow (limited to a maximum of 1 serving per day), red (max. 2 servings per week) and compiling guidelines for diet and physical activity per week.

The agreed joint commitment includes the same goal of implementing the innovation, the same perception of filling the innovation, implementing a program of weighing and physical activity according to the guidelines prepared. Implementation of the innovation (food intake and physical activity) for 8 weeks by following the guidelines as in Figure 2. Weighing is carried out every week and height measurements are taken at the beginning before and after the innovation. After the innovation had been running for 4 weeks, data on body weight, Body Mass Index and exercise frequency were obtained. The results of the weighing showed that the initial weight range before the intervention was 59.9 kg to 76.65 kg while the weight range after the intervention was 59.1 kg to 75.62 kg. Changes in BMI from before the innovation in the range of 25.47 to 31.34 decreased to a range of 25.05 to 30.80 kg/m2.

After the innovation was carried out for 8 weeks, it was found that there was a significant decrease in body weight and body mass index (p value 0.000 and 0.005). In addition, there was a change in exercise frequency, as many as 60% of respondents already had a habit of exercising >3 times a week. The results of the analysis showed that physical activity was significantly related to weight loss (p 0.033).

The results of the research from the implementation of the innovation showed

that intake with the selection of types of food and physical activity with exercise were related to weight loss. Monitoring and Evaluation were conducted to inventory the obstacles in implementing the innovation and follow up so that it can be applied in the general group (other than nutritionists) with a larger number of patients. The results of dietary compliance and physical activity showed that the diet could be applied with a high level of dietary compliance. Dietary non-compliance was only seen from 1 respondent exceeding the recommended consumption of yellow (> 1 portion/day) and 3 respondents exceeding the recommended consumption of red (> 2x a week). From the frequency of physical activity, more than half of the respondents (6 people) have a habit of exercising > 3x a week.

Conclusion

The conclusion based on the research that has been conducted, it can be concluded that: The results of the analysis of changes in body weight show a significant decrease in body weight after the implementation of the innovation (p 0.000). There is a significant relationship between the frequency of physical activity (exercise) and weight loss (p 0.033). There was a significant change in BMI before and after the innovation from a range of 25.47 to 31.34 to 25.05 to 30.8 kg/m2 (p 0.005)

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