

EFFECTS OF TRAINING CONSUMPTION OF MILK AND DAIRY PRODUCTS ON THE PERSONNEL OF STATE WELFARE OFFICE AT KERMANSHAH BY USING BASNEF EDUCATIONAL MODEL

NAHID KHADEMI¹, LALEH MOZAFARI^{2*}, ELAHE SADEGHI¹

¹Deputy of Health, Kermanshah University of Medical Sciences, Iran - ²Deputy of food and Drug, Kermanshah University of Medical Sciences, Iran

ABSTRACT

Background: Given the importance of consumption of milk and dairy products to improve the members of society, especially employees, this study aimed to determine the effect of consumption of milk and dairy products personnel of state welfare office at Kermanshah by using BASNEF educational model was performed.

Materials and methods: In this experimental study on 64 employees of state welfare office at Kermanshah 32 patients were divided into two groups: experimental and control was performed. Data collection, set questionnaire based on BASNEF model and 24-hour recall (before intervention and one month after intervention) was. Educational intervention was done in three training sessions and data from questionnaires by 16- SPSS software and paired t-test, analysis of variance with repeated observations, Friedman and Mann-Whitney were analyzed. Educational intervention was done in three training sessions and data from questionnaires by 16- SPSS software and paired t-test, analysis of variance with repeated observations, Friedman and Mann-Whitney were analyzed.

Results: Research findings showed that the mean score of knowledge and components BASNEF model between the two experimental and control groups the nutrition performance of dairy after educational intervention there was a significant difference. Most important subjective norms after the educational intervention for experimental group consisted of wife and family members.

Conclusions: The results of this study designing the nutrition education program based on BASNEF model the improvement in performance, consumption of dairy by employees will be effective.

Key words: milk, dairy products, employees, BASNEF model.

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Introduction

The role of dietary and nutrition in health and disease progression are well known⁽¹⁾. Diet, in addition to the growth and evolution, can cause some health problems such as bones health; Tooth decay, eating disorders, obesity, constipation, and malnutrition and iron-deficiency anemia reduce or exacerbate^(2,3). Today, consumption of milk and dairy products as one of the indicators of development of human society are discussed.

Research consistently shows that have high correlation between the consumption of milk and dairy products with level of health of individuals. Milk and dairy products provide a good source of protein, some minerals and vitamins required by the body. Therefore, milk and other dairy products like yogurt, cheese and yogurt are Food stuffs such as daily food basket per household should be present. Consumption of milk and dairy products for rickets, slow growth, and tooth decay in children and osteoporosis in adults, hypertension and high blood lipid

and colon cancer prevent^(4,5). Consumption of dairy products in our country is very inadequate, so that according to the latest statistics about Iranian food basket, daily intake of dairy products per person is 139 grams, while high consumption of dairy products each person a day should be 225 to 240 g⁽⁶⁾. Nutrition education, to any combination of educational strategies designed to facilitate decision-making in food choices and eating behavior that is appropriate to the health and well-being⁽⁷⁾. Nutrition education programs appropriate way to increase awareness and attitudes and modifying behavior of wrong nutrition is^(8,9). Nutrition education programs as an effective way to establish positive attitudes nutritional, Change and Reform eating habits and learn about the relation between nutrition and disease have been identified⁽³⁾. Should be through education, knowledge and skills to enable people to choose the proper nutrition provide to improve their health.

A systematic review of the literature review that can understand the background of an issue with the review of the studies provides. This study may help researchers for studies more effective action in the future. It should be noted that the value of educational programs depends on the effectiveness of these programs and the effectiveness of educational programs largely depends on the proper use of theories and models. One of the models for the study to identify the behavior and creating of new behaviors in society used the BASNEF Model is that structures such as beliefs (attitude toward evaluation of the behavior); attitude toward the behavior, norms Subjective, enabling factors, has been established. Different studies have proved its efficiency based on this model.

Considering that the level of milk consumption of staff in recent years, information is available and also due to the fact that in order to promote health and prevent the devastating effects of osteoporosis and tooth decay in adults need to take necessary measures to increase milk consumption is between individuals, The aim of this study was to investigate the effect of milk and dairy products in office workers of state welfare at Kermanshah by using the training BASNEF model is.

Methods

This study by method of intervention on 64 state welfare office workers in 2014 was carried out. 32 people as the control group and 32 others were

considered as the experimental group. For data collection, a questionnaire was designed based on the BASNEF model and a questionnaire during 24 hours dairy feed was used. A questionnaire components of BASNEF Model, including knowledge (22 questions), Attitude toward evaluation of the behavior (6 items), Attitude toward the behavior (6 items), the norm beliefs (5 questions), subjective norms (4 questions), enabling factors (5 questions), and aims behavior (5 items), was. That in three times before the intervention, immediately after the intervention and one month after the educational intervention as self-report was completed. 24-hour recall questionnaire consumption of dairy in three days (two days routine a day off) to interview method employees of the department of Welfare was completed.

To determine, scientific validity of the questionnaire by content validity and to determine the reliability of the questionnaire by 20 employees (excluding employees participating in the study was completed and Cronbach's alpha coefficient for sector of knowledge (0.75), Attitude (7.0), and subjective norms, behavioral intention and enabling factors (0.82), obtained. The educational intervention in both the experimental and control groups completed the mentioned questionnaire and then intervention for the experimental group in three training sessions two sessions were held for employees and a special session for their spouses the duration of the training sessions was 75 minutes and after each training session to the staff on the correct nutrition educational booklets in adulthood was given.

Scoring each of the parts of the questionnaire is as follows: Knowledge sector to each correct answer one point and to each wrong answer and I do not know to each one zero-rated was given. structures of model sector that was 5 scale Likert model were awarded respectively four to zero was given only part of the enabling factors of BASNEF Model how to measure the Yes, No and to some extent, respectively three, one and two were awarded Finally, the scores were level 100. For nutrition performance also number of consumer units of each group the 24-hour recalls dairy consumption extraction and then dairy group the minimum number of units proposed by the consumer pyramid of dairy products it was provided Ten score was given.

If the employees of each group of dairy had consumed at least the recommended unit, ten point gained that total of five groups, this score is 50, ten points were obtained also a preserving diverse of dairy products in the total score reaches to 60

Finally, performance as diversity and selection of higher dairy products consumption of 60 points, adequacy and variety of desirable dairy products consumption 59-50 points Dairy consumption low (negative) $50 \geq$ was divided.

Results

Independent t-test showed that before the educational intervention there was no significant difference between the knowledge score in two group ($P=0.122$). Paired t-test in the experimental group showed that the mean knowledge score immediately and one month after the educational intervention was significantly increased ($P=0.001$). In the control group the ANOVA test showed that the mean pre-awareness immediately and one month after educational intervention there was a significant difference ($P=0.001$). Independent t-test showed that before the educational intervention between mean scores of attitude toward evaluation of the behavior, there is no significant difference between experimental and control groups ($P=0.226$), While the difference in immediately after the intervention ($P=0.001$), and one month after intervention ($P=0.004$), was significant. Before, immediately and one month after the training, between the attitude toward the behavior in the two groups showed no significant difference. While the RMA test showed significant difference mean attitude toward the behavior in three time at the experimental group ($P=0.003$) and control ($P=0.02$), was.

The mean score of normative beliefs experimental and control groups were not significantly different before intervention. But immediately after the intervention and also one month after the intervention score mean, normative beliefs in the treatment group was significantly higher than the control group. RMA1 test showed that the mean score of normative beliefs in the experimental and control groups before, immediately and one month after intervention is not the same. Independent t-test showed that before the educational intervention between mean scores of enabling factors, there is no significant difference between the two groups.

However, this difference was significant immediately and one month after intervention. Friedman test showed that frequency distribution of subjective

norm (wives of employees) ago immediately and one month after educational intervention in the experimental group had been a significant difference, but in the control group this difference was not significant. Analysis of variance with repeated observations showed that the mean score in the experimental group plans to conduct in three times (before, immediately and one month after intervention is not similar. RMA test showed having the significant difference between mean scores of enabling factors target group before intervention immediately and one month after the educational intervention ($p=0.001$)⁽¹⁾ (table 1).

Friedman test showed that frequency distribution of subjective norm (wives of employees), before, immediately and one month after educational intervention in experimental group had been a significant difference, But in the control group this difference was not significant. Analysis of variance with repeated observations showed that the mean score in the experimental group plans to conduct in three times (before, immediately and one month after intervention) is not the same. Paired t-test showed that between mean behavior plan in before and one month after training ($P=0.006$).

Row	Variable	Group	Before i ntervention Mean \pm SD	Immediately after the intervention Mean \pm SD	1month after intervention Mean \pm SD	RMA Test
1	Attitude toward behavior asses- ment	Experimental	67/66 \pm 12/58 68/55 \pm 11/22 P=0/226	77/34 \pm 17/06 66/44 \pm 10/1 P=0/001	88/4 \pm 7/08 755/7414/26 0<P/004	P<003/0 P= 02/0
2	Attitude, behavior	Control	64/54 \pm 12/16 65/1 \pm 16/22 P=0/46	73/76 \pm 15/96 71/22 \pm 24/82 P=0/38	79/16 \pm 15/35 74/98 \pm 16/88 0<P/126	P<001/0 P= 03/0
3	Normative beliefs	Experimental	75/58 \pm 14/22 66/66 \pm 20/22 P=0/056	85/33 \pm 12/96 74/14 P=0/026	87/16 \pm 14/2 78/12 \pm 15/1 P=0/012	P= 001/0 P= 02/0
4	Treatment planning	Control	73/66 \pm 18/94 65/41 \pm 17/36 P=0/098	84/66 \pm 19/12 74/74 \pm 20/22 0<P/014	67/66 \pm 12/58 68/55 \pm 11/22 0<P/04	P= 006/0 P= 01/0
5	Enabling factors	Experimental	62/66 \pm 12/58 60/65 \pm 15/22 P=0/266	88/66 \pm 14/10 56/76 P<0/001	76/66 \pm 16/58 43/45 \pm 18/22 0<P/001	P<003/0 P= 002/0

Table 1: Comparison of the mean scores of attitude toward the evaluation of the behavior, attitude toward the behavior, normative beliefs, plans and enabling factors of employees in the 3 times before, immediately after and one month after the intervention the experimental group and control.

There are significant differences, RMA1 test showed that the mean score in the control group in three same times is not intention behave. Independent t-test showed that before the educational intervention between mean scores of enabling factors, there is no significant difference between the

two groups ($P=0.266$). But the difference, Immediately and one month after intervention become significant RMA1 test showed significant differences in the mean scores of enabling factors in experimental and control groups in all three times intervention ($0.003 = p^{(1)}$). In relation to the performance, before the intervention, 81.25% of staff had a poor performance, but after the intervention reach to 28.12 percent. In the control group before and one month after the intervention unfavorable performances of dairy products consumption were 84.38% of employees⁽²⁾ (table 2).

Experimental		control		Group
1month after training	Before training	1month after training	Before training	Operation
9(12.28%)	26(25.81%)	27(38.84%)	27(38.84%)	50> (poor)
23(38.59%)	6(75.18%)	5(62.15%)	5(62.15%)	60-50 (moderate)
4(5.12%)	-	-	-	60 <(desirable)

Table 2: frequency distribution of performance dairy products consumption before and 1 month after the educational intervention.

Discussion and conclusion

The average score in the experimental group compared to the control immediately and one month after dramatic increase had that reflects the impact of educational intervention on BASNEF model to increase their knowledge that the studies by using BASNEF model done is consistent. The mean knowledge score of the control group increased cause it can be curious and questioning employees of the Group considered Because seeks to answer the questions in pre-test For them created was, Correct answers to their spouses or other partners were asked. Staff attitude on the evaluation of the results of behavior Immediately and one month after educational intervention in experimental group increased Which shows the effectiveness of the intervention based on the BASNEF model in the area of faith and persistence , Preservation and promotion of employees’ attitude towards taking proper performance is daily dairy consumption. These findings are consistent with other studies.

One month after the intervention, the attitude towards the evaluation of the behavior in control group also increased May be because of increased awareness in this Group, The cause of attitude creation in them, and the importance of nutrition staff and partners have been involved in this matter.

Before the intervention the mean of attitude toward operation in both groups was high May be because of the high level of attitude towards the evaluation of the behavior considered in both groups. When the staff from the results of a behavior (proper functioning of daily consumption of dairy) have had a positive assessment of this factor increases staff motivation and encouragement to do it. Immediately after the intervention and one month after training, attitude toward to act has been increased. In this study, also results suggest that the relationship between beliefs with behavior intended and the effect of behavior intended on the related performance by food choice from employees.

The increase in mean of enabling factors immediately after training the experimental group caused by:

1. The access of employees to training classes, pamphlets and booklets,
2. Access to the nutrients needed by the family, especially wives and mothers of employees,
3. The lack of available employees to unhealthy foods is through self-service foods.

With regard to increasing the score enabling factors results of this study is consistent with findings Alizadeh on field of personnel safety.

In the control group, this significant decrease can be explained so That employees have gained some knowledge on field of nutrition And family have attention to this important issue and the availability of enabling factors In order to perform the desired behavior have feeling the need. In the present study due to the increase in the average score of model parts, training has improved the performance of the experimental group. Such that performance before intervention 81.25% of employees was unfavourable while after intervention, reach to 28.12 percent. In the control group before and one month after intervention 84.38% of employees in the dairy products consumption were undesirable performance. One month after training in the use of each of milk and dairy products in the experimental group increased, which shows the effect of education based on BASNEF model on the performance of staff is and with other studies in the field of nutrition education is consistent. Above results importance effectiveness of Consumption of milk and dairy products Welfare office workers in Kermanshah by using educational model of BASNEF shows to improve performance of dairy products consumption of employees. Finally, it is recommended the effect of other models on the perfor-

mance of consumption of milk and dairy products in the employees were evaluated and its efficacy compared with BASNEF model.

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