

Food Labelling Programme for use in the New Zealand Army dining halls

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Background

At present the New Zealand Army is undergoing a review of their food service which includes an investigation of the nutritional needs of soldiers and determination of how these needs could be better met.

The aim is to ensure optimal physical and mental performance during training and missions is achieved through adequate nutrition. In addition, it is anticipated the adoption of a healthy eating pattern would result in a reduction of risk burden of disease later in life.

At present, little nutrition education is provided to New Zealand Army personnel. Due to this, what nutrition knowledge soldiers have may be suspect as sources of information may deliver inaccurate or inappropriate nutrition information to the soldiers with very diverse needs. Many soldiers are unaware of their dietary requirements for optimal physical performance or unaware of what constitute a healthy diet. This lack of knowledge is likely to lead to an inadequate nutritional intake, in particular during times of physical and psychological stress or increased workloads. Previous research has identified the adverse effects of inadequate nutrition as an important factor in relation to performance during missions and soldiers' health and risk of illness and injury.

An intervention conducted by Shannon, et al (2002)¹ identified that in practice environmental intervention is the most effective method to educate a large diverse population. Such interventions involve a change to the social environment, in so far as the environment is altered to make it easier for the target group to engage in the new behaviour (Glanz 1997)². Food labelling programmes, such as point of purchase interventions, are an effective type of environmental intervention as it incorporates behaviour change in the program design and changes the social environment and aid people to change their dietary intake (Glanz 1997)²

Aim

The programme aims to provide soldiers with the means to select healthier food choices and to mitigate the risk of inadequate nutrition and its associated adverse effects in soldiers who dine mostly on-base.

¹ Shannon, C., Story, M., Fulkerson, J.A. and French, S.A., (2002) Factors in the School cafeteria Influencing Food Choices by High School Students, *Journal of School Health*, vol 72, no 6, pp 229 - 234.

² Glanz, K. and Rimer, B.K. (1997), Theories and Applications, *Theory at a Glance: A guide for health promotion practice*, United States of America Department of Health and Human Services, United States of America, pp 15 - 25.



Methods

This project reviewed current literature on food labelling programmes used in other defence forces, university dining halls and cafes, high school cafes and civilian restaurants and cafes and literature on soldiers' nutritional needs and nutritional intakes to help develop the most appropriate food labelling programme.

This study conducted a 22-item questionnaire to gather demographic information, current eating habits, sources of nutrition information and readiness to make dietary change.

Focus groups were conducted on a convenience sample of soldiers living in camp at Trentham Military Camp, this was conducted to test and gather feedback on the acceptability of the food labelling programme developed.

Results

The sample included 22 soldiers with ten participants in group one and twelve participants in group two who met the inclusion criteria.

Questionnaire

Demographics details were similar between the two groups.

50% of the overall sample did not source nutrition information on a regular basis and when participants did source nutrition information they sourced it from friends and family.

Perceived readiness to make dietary change was different between the two groups. Majority (50%) of group one perceived themselves to be in the contemplation stage of change and 50% of group two perceived themselves to be in the maintenance phase. When asked how confident they were at making dietary change 60% of group one reported having little confidence in their ability to make dietary change whereas 58% of group two reported being moderately or highly confident in their ability to make dietary change.

Focus group

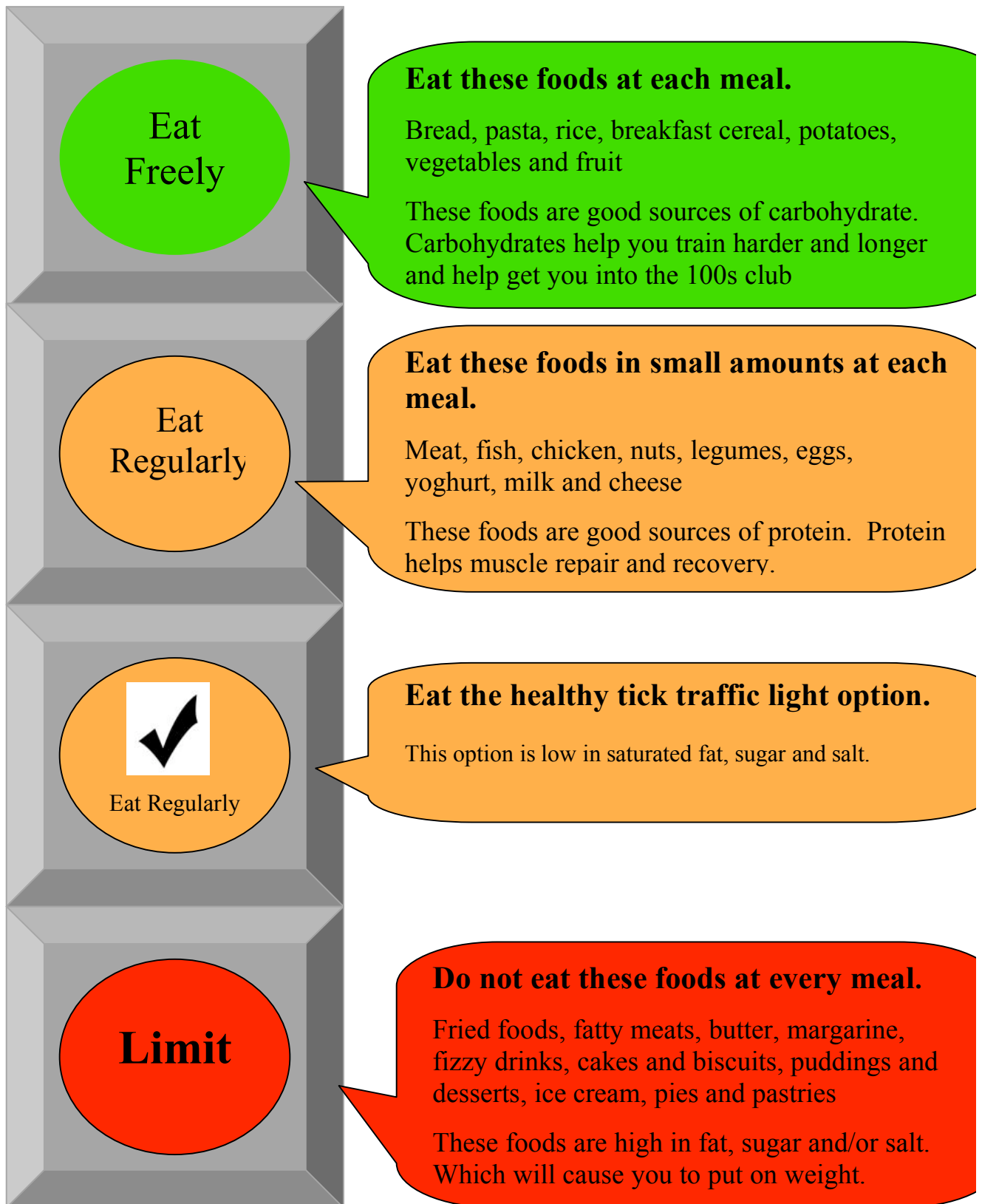
These sessions generated a wealth of feedback on the food labelling programme. This resulted in changes to the format and wording of the existing posters and the development of a new poster that caters to the specific needs of the target audience.

Food labelling programme developed

This programme developed is based on a four level traffic light system, with food labels that will be placed on the tray lines and three different posters to help educate soldiers on the traffic light programme and healthy eating for optimal performance.



Food labels



Conclusion

Findings suggest that soldiers were in favour of a food labelling programme that will provide relevant and reliable nutrition information. This initiative is likely to lead to an increase in levels of nutrition knowledge and perceived confidence to make dietary changes. Provision of a specifically tailored programme will engage the target group and encourage soldiers to adopt healthy eating behaviours that will improve overall physical and mental performance. The outcome of this project was the development of a refined draft of the food labelling programme.

Main limitations and strengths

Major limitations that need to be considered when interpreting these results are; the sample was selected using a convenience sample and the sample was taken from one Military Camp, each camp is slightly as each camp conduct different training programmes. These limitations decreases the ability of the results being generalised to the greater Army population. The questionnaire was not validated or pre-tested on soldiers. This increases the chance of response bias. However, the questionnaire was pre-tested on individual of a similar age as the target audience

A strength of this study was the use of both qualitative focus groups and a semi-quantitative questionnaire. This increases the validity of the study approach.

Main Recommendations

The following recommendations can be made from the results of this study.

1. Before implementation of the food labelling programme, the following activities are recommended to occur:
 - a. The study should be repeated using a larger sample from the target group.
 - b. Review both the food service operation and the dining hall environment to identify and make appropriate changes to the foods offered and the environment in order to promote the adoption of healthy eating behaviours.
 - c. Posters and food labels would benefit from graphic design work to provide a more professional look that would enhance credibility.

