



Abstract Developing Ecologically Sustainable Recipes for Older Adults with Obesity during a Period of Weight Loss: The First Step in the 2EAT Project⁺

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Abstract: Background and objectives: Dieticians often advise older adults to eat animal-based proteins during a period of weight loss. Animal-based proteins in general have a higher protein quality and a higher potential to stimulate muscle protein synthesis and might therefore better preserve muscle mass during weight loss compared to plant-based proteins. However, animal-based proteins have a high environmental impact. The 2EAT project aims to study the effect of a 60% plant-based protein diet compared to a 60% animal-based protein diet on muscle health and general health during a period of weight loss. The first objective in this project is to develop recipes that dieticians can use to coach older adults with obesity on moving towards a more plant-based diet. The recipes need to be nutritionally adequate, with 1.2 g/kg protein/kg body weight and high protein quality per meal, need to fit into an energy-restricted diet and must be feasible for the target group. Methods: The development of the recipes consisted of several steps. 1. Develop recipes for meals that, on daily average, meet the nutritional criteria and are feasible for the target group. 2. Have focus groups with the target group to evaluate the feasibility of the recipes. 3. Interview dieticians on the nutritional adequacy and feasibility of the recipes. 4. Based on steps 3 and 4, adjust the recipes. The recipe book is then provided to the target group (n = 18) so they can prepare at least seven meals to rate and evaluate these meals. Based on their findings, adaptations are made. Results: The developed recipes meet the nutritional criteria. The average rating of the meals on a scale of 1–10 is a 7.5. In general, the target group is positive and mentions that the recipes are easy to prepare, taste good, and are not too expensive. Improvements need to be made to some recipes: the portion sizes were too large, they were not tasty enough, and/or the recipe description needs to be reformulated. Discussion: The next step is to pilot nutritional counselling with a dietician with the use of these recipes for 8 weeks to see whether the target group reaches 60% plant-based protein and the other nutritional criteria.

Keywords: plant based protein; animal based protein; muscle mass; older adults; obesity; weight loss; recipe books

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