

Através da análise dos resultados preliminares, será expectável que se verifique um incremento da literacia alimentar dos indivíduos beneficiários, no final da intervenção. Além disso, prevê-se que a capacitação de cada indivíduo possa ser amplificada para a família, uma vez que se distribuíram materiais pedagógicos para serem analisados/utilizados nesse contexto. Os resultados reforçam a importância de se implementarem estratégias de intervenção orientadas para o perfil dos indivíduos, em função da sua caracterização.

Conclui-se, assim, que a aplicação deste projeto poderá realçar o papel do nutricionista enquanto agente de promoção de literacia alimentar junto de famílias em situação de vulnerabilidade socioeconómica, fornecendo-lhes ferramentas para realizarem melhores escolhas alimentares em função do orçamento familiar disponível.

## From Knowledge to Action: The BeE-school Program's Effectiveness on Obesity in School Children

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**INTRODUCTION:** The risks of noncommunicable diseases (NCDs) often begins in childhood and are associated with common modifiable determinants such as unhealthy diets and disrupted 24-hour movement behaviours (including sleep, sedentary behaviour, and physical activity), particularly among socially vulnerable groups. Despite the increasing public health importance of NCDs, prevention efforts remain inconsistent and fragmented. Promoting healthy lifestyles from an early age is crucial, especially in school settings.

**OBJECTIVES:** To evaluate the effectiveness of a school-based health promotion intervention (BeE-school) on children's lifestyle behaviours and weight status.

**METHODOLOGY:** BeE-school was a cluster-randomised controlled trial conducted in ten socially disadvantaged primary schools in Northern Portugal, involving 735 children aged 6–12 years. The intervention, grounded in health promotion principles, was co-created with input from teachers, families, and pupils. It included a 16-week teacher training program (48 hours), classroom activities, and biweekly family challenges focused on nutrition, physical activity, emotional well-being, and misinformation resilience. Anthropometric, lifestyles and health literacy data were collected at baseline, post-intervention (4 months), and long-term follow-up (12 months after intervention).

**RESULTS:** Children in the intervention group showed significant reductions in BMI Z-scores, waist-to-height ratio, and waist-to-weight ratio post-intervention. These improvements in BMI Z-scores were sustained one year later. Parental health literacy was positively associated with adherence to the Mediterranean diet, which in turn was linked to lower odds of childhood overweight/obesity—particularly in families with higher educational levels. Among families with lower educational attainment, increased quality family time also reduced obesity risk, highlighting the importance of family engagement.

**CONCLUSIONS:** BeE-school represents an effective and sustainable strategy for promoting healthy lifestyles and reducing the risk of obesity among vulnerable children. The findings highlight the importance of integrating health literacy, family engagement, and behaviour change principles into school-based interventions as a means to address NCD risk factors early in life.

## NUTRITIVE VALUE VS. COST: STRATEGIES TO OPTIMIZE DIET'S NUTRITIVE VALUE IN A LOW-INCOME CONTEXT

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The Mediterranean Diet (MD) emphasizes nutrient-rich foods consumption, that lowers the risk of several non-communicable diseases and increases life expectancy, being consensually recognized as a high nutritive value diet. The main characteristics of this diet are the abundance of fruits, vegetables, whole grains, legumes, and olive oil, along with moderate consumption of fish, poultry, and dairy, and limited red meat and processed food. Although Portugal is a southern European country with mild weather and all-year access to local fish, seafood, vegetables and fruits common in the MD, the adherence to this eating pattern is decreasing, mainly due to the increase in these food products cost, what is proved by the greater adherence among the better-off.

The mean cost of a high adherence to the Mediterranean Diet (adjusted for a total energy intake of 2000 kcal) is €3.61 per day. According to data from the latest Household Expenditure Survey, the contribution of food to the household's annual expenditure is around 20%. Considering the Portuguese minimum wage of €870, it quickly becomes clear that a Portuguese family may be unable to perform a high adherence to the Mediterranean Diet. However, some strategies can be used to optimize the nutritive value of the diet, saving as much as possible. Firstly, for soup preparation, preferring seasonal vegetables (typically cheaper) and that easily increase the soup volume, such as savoy cabbage and other traditional cabbages (kale, etc) decreases the cost per serving. Regarding fruit, it is important to notice that the price is highly variable depending on the type (a banana costs on average €0.26/unit and a pitaya €4.25/unit), so, maintaining the daily consumption of 3 portion of varied, local and seasonal fruit may not be as expensive. It is known that sunflower oil (for example) is cheaper (€1.79/L) than olive oil (€5.50/L), however, even though olive oil should be the preferred fat for cooking, the amount used does not need to be high, especially for those who need to reduce fat mass (the average price per tablespoon is around €0.08). Additionally, with regard to the main meals, the most economical sources of protein are also the ones that should be favoured, such as legumes, chicken, eggs, and fish (when canned or frozen, maintains its nutritive value and is more economical). With regard to carbohydrate sources in the main dish, it is important to highlight whole grain flour and whole grain bread use (both can be used in typical Portuguese dishes), since they are cheap and highly nutritive options. These, among other strategies, can be used, avoiding food choices that are unbalanced and not necessarily less expensive.

## O TEMPO DE SER MÃE

### Os Desafios Metabólicos da Maternidade Tardia - A Fertilidade

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A maternidade tardia, definida como a concepção a partir dos 35 anos, é um fenómeno crescente nos países desenvolvidos, que tem surgido devido ao aumento da escolaridade e oportunidades de carreira da mulher, uso generalizado de métodos contraceptivos e acessibilidade dos meios de procriação medicamente assistida (1). Contudo, associa-se a desafios metabólicos e reprodutivos significativos. A fertilidade diminui progressivamente com a idade, devido à diminuição da quantidade e qualidade ovocitária. À nascença, os ovários possuem cerca de 1-2 milhões de foliculos primordiais, reduzindo-se para 400.000 na puberdade, com uma perda contínua ao longo da vida reprodutiva. A redução