

**Ph.D. Thesis Proposal<sup>1</sup>**

General Information		
Ph.D. Thesis Title	<i>Evaluation of changes in lifestyle and interpretation of their impact on non-communicable diseases, and implementation of an obesity control program among University students in Lebanon</i>	
USEK Doctoral Program	Agricultural and Food Sciences	
Research Center	NA	
Research Group	NA	
Research Axis		
Ph.D. Supervisor	Name & Title : Julien Sophie , Professor Email : sophiejulien@usek.edu.lb	University Address : Holy Spirit University of Kaslik-USEK, Faculty of Arts and Sciences, Room H113A
Co-supervisor (if applicable)	Name & Title : Email :	University Address :
Location (s)	Location 1: USEK- Kaslik Campus	Work shift calendar /per year (%): 70
	Location 2: (if applicable) Universities among Lebanon	Work shift calendar /per year (%) 30
Potential funding and scholarship	AUF, Erasmus, Prima	

Applicant Profile and/or Special Requirements	<ul style="list-style-type: none"> <li>- Master in Clinical Nutrition or Public Health</li> <li>- Must hold the Lebanese Dietetic Licensure</li> <li>- Strong experience with the Nutritional Care Process in hospital care.</li> <li>- Possess advanced statistical analysis and Excel skills</li> <li>- Dynamic and proactive approach in carrying clinical settings responsibilities</li> <li>- Autonomy in carrying collection and analysis of the data.</li> <li>- Previous peer-reviewed publication will be considered as an advantage</li> <li>- Strong English language skills</li> </ul>
Comps Exam Language (to be check-marked by the Ph.D. Supervisor)	<input checked="" type="checkbox"/> Oral Assessment <input type="checkbox"/> Written Assessment <input type="checkbox"/> Arabic <input type="checkbox"/> French <input checked="" type="checkbox"/> English

Subject's national or worldwide Context, Objectives & Research lines
Lifestyle including food choices, physical activity, social-environment and stress management, is currently recognized as the main contributor to global pandemic of non-communicable chronic diseases (NCD). Worldwide, more than 90% of all deaths are attributed to NCD, which refer to a group of conditions such as cardiovascular diseases, type 2 diabetes, cancer and chronic pulmonary illnesses, not caused by an acute infection.

<sup>1</sup> The Ph.D. Thesis Proposal should not exceed three pages.

The young adults are particularly at risk in developing NCD due to the consequences of the COVID-19 pandemic that has dramatically impaired socializing, promoted sedentary habits, developed poor eating habits, and raised anxiety, stress and depression [R1,R2]. All of these factors have contributed to the high incidence of overweight and obesity, which are the major risk factors for NCD, regardless of gender, socioeconomic status and ethnicity [R3]. Currently, the estimation of the prevalence of excess body weight in university students of Lebanon is missing, and the associated risks are neglected, highlighting an important socioeconomic and healthcare burden to arise within the next decades. A recent study from the Lancet journal have recently observed that “In 2022, the combined prevalence of obesity was highest in island nations in the Caribbean and Polynesia and Micronesia, and countries in the Middle East and north Africa” [R4]. A study made in Finland have demonstrated that internet-based technologies can be implemented in the virtual management of obesity [R5].

The **main goal** of this research project is to assess the prevalence of overweight and obesity through the development and implementation of a multidisciplinary behavioral program to prevent NCDs in the Lebanese university community. To reach this goal, this research project will focus on **three main objectives**:

- 1- Assess the prevalence of overweight and obesity and explore multidimensional covariates (mental health, dietary habits, and lifestyle habits) and related NCD-developing risk factors.
- 2- To create and implement a cost-effective and comprehensive behavioral and dietary habit change' intervention for obesity control as a preventive measure for NCD occurrence.
- 3- To assess the effectiveness of behavioral and nutrition changes' strategies through measurements of lifestyle changes and NCD risk factors.

The overall goal of this research project, is to develop an obesity prevention program, aiming at developing healthy nutrition transition among overweight or obese young adults that has been proven to be effective.

Outcomes (OCs) : What do we wish to achieve?	
OC1:	Qualitative and quantitative measurements of anthropometrics, adherence to healthy diet, physical activity, mental health correlated with NCD markers.
O23 :	Measure effectiveness of behavioral change intervention evidenced by a maintenance or decrease body mass index along with a higher adherence of Mediterranean diet or plant-based diet, decrease in anxiety and/or depression, and sedentarity, and recovery of markers levels toward normal ranges.
OC3:	Publish a validated cost-effective behavioral change program to be spread and used among healthcare institutions in Lebanon and/or globally.

References (R) (5 most recent peer-reviewed publications in the field)	
R1:	Boutari, C., & Mantzoros, C. S. (2022). A 2022 update on the epidemiology of obesity and a call to action: As its twin COVID-19 pandemic appears to be receding, the obesity and dysmetabolism pandemic continues to rage on. <i>Metabolism</i> , 133, 155217. <a href="https://doi.org/10.1016/j.metabol.2022.155217">https://doi.org/10.1016/j.metabol.2022.155217</a>
R2:	Baroud, T., El Masri, J., Shammaa, H., Saleh, M., Chanbour, H., & Saleme, P. (2022). The Impact of COVID-19 Pandemic, Financial Wellness, and Online Teaching on Schoolteachers' Mental Health: A

	Cross-Sectional Study in Lebanon. <i>International Journal of Clinical Research</i> , 3(1), 150–161. <a href="https://doi.org/10.38179/ijcr.v3i1.169">https://doi.org/10.38179/ijcr.v3i1.169</a>
R3 :	Mizia, S., Felińczak, A., Włodarek, D., & Syrkiewicz-Świtała, M. (2021). Evaluation of Eating Habits and Their Impact on Health among Adolescents and Young Adults: A Cross-Sectional Study. <i>International Journal of Environmental Research and Public Health</i> , 18(8), 3996. <a href="https://doi.org/10.3390/ijerph18083996">https://doi.org/10.3390/ijerph18083996</a>
R4:	Phelps NH, Singleton RK, Zhou B, Heap RA, Mishra A, Bennett JE, et al. Worldwide trends in underweight and obesity from 1990 to 2022: a pooled analysis of 3663 population-representative studies with 222 million children, adolescents, and adults. <i>The Lancet</i> . 2024 Mar;403(10431):1027–50.
R5:	Suojanen, L.-U., Ahola, A. J., Kupila, S., Korpela, R., & Pietiläinen, K. H. (2020). Effectiveness of a web-based real-life weight management program: Study design, methods, and participants' baseline characteristics. <i>Contemporary Clinical Trials Communications</i> , 19, 100638. <a href="https://doi.org/10.1016/j.conctc.2020.100638">https://doi.org/10.1016/j.conctc.2020.100638</a>