International Journal of Health Science

DESIGN AND IMPLEMENTATION OF THE HHVEVA PROGRAM: LIFE SKILLS AND ACTIVE LIFESTYLE IN UNIVERSITY STUDENTS

Noelia Belando Pedreño

Faculty of Physical Activity and Sport Sciences and Physiotherapy European University of Madrid

Lucía Ferreccio

Faculty of Physical Activity and Sport Sciences and Physiotherapy European University of Madrid

Irene Barbero Alcocer

Department of Education and Humanities European University of Madrid

Isabel Rossignoli Fernández

Department of Education and Humanities European University of Madrid



All content in this magazine is licensed under a Creative Commons Attribution License. Attribution-Non-Commercial-Non-Derivatives 4.0 International (CC BY-NC-ND 4.0).

Abstract: Optimal mental health, understood as the state of well-being in which a person is aware of his or her cognitive abilities, able to cope with normal day-to-day stresses, perform academic tasks productively, and participate actively in his or her community. The aim of this study was to design and implement a 10week life skills and active lifestyle intervention program (HHVEVA Program), following the guidelines of the Transparent Report of Evaluation with Non-Randomized Designs (TREND), for the acquisition of intrapersonal and interpersonal skills in college students. The proposal is described on the basis of the actions carried out for the elaboration of the program, and how to implement it in university students of different degrees, aged between 18 and 25 years (M = 21.09; SD = 1.8) (11 women and 9 men). The study concludes with the need to develop and implement multicomponent intervention programs for the promotion and improvement of health, integrating emotional regulation strategies, interpersonal skills and the practice of healthy physical exercise in university students.

Keywords: emotional intelligence, psychonutrition, physical exercise, integral health, young university students.

INTRODUCTION

This research proposal focuses on the importance of training and accompanying young university students in life skills and healthy lifestyle at a physical and psychological level. With the purpose of enjoying an adequate personal, academic, and even professional development in the near future. One of the essential values for true personal development in individuals is "wisdom", understood as the degree of learning associated with personal development and transpersonal aspects such as emotional self-regulation, resilience, respect for oneself and others, personal and social responsibility (Wright & Burton,

2008). This paper describes the design and implementation mode of the intervention program "HHVEVA, Life Skills and Active Lifestyle" in university students, from an integral approach to the developmental dimensions of the human being, based on psychological theories that explain human behavior. Theoretical paradigms that analyze the cognitive and emotional processes of motivation in individuals (Reeve, 2012), the Transcontextual Model of Motivation (MTM) (Hagger and Chatzisarantis, 2009b) and the Biopsychosocial Model of physical activity (Bauman et al., 2012). The interconnection between: a) the level of personal motivation, b) the motivation experienced by the person in the different contexts in which he/she develops (MTM), c) the satisfaction of Basic Psychological Needs (BPN, Echegoyén et al., 2022), d) the acquisition of intra- and interpersonal skills (Goleman, 1995), e) "motor literacy" (integration of knowledge, procedures, attitudes and emotions linked to motor behavior), as well as, the improvement of physical condition (Raymond et al., 2022).

Other biopsychosocial and academic actions that underpin the present proposal focus on the alignment of the objectives of the HHVEVA program with the pillars of the Academic Model (AM) of the European University (EU). The MA is established in a hybrid form (face-to-face and online) requiring the teacher to possess, improve and acquire new socio-pedagogical competencies in these two contexts in conjunction with digital and technological competencies (He et al., 2023). Likewise, and in line with the latest scientific evidence in pedagogy, more and more universities, including the EU, are updating their MA to foster experiential learning.

OBJECTIVE AND HYPOTHESIS

According to the above, this work is structured in two main objectives: 1) to design an intervention program (HHVEVA Program) based on the knowledge and management of intrapersonal skills (emotional intelligence), emotional regulation of eating behavior and the regular practice of physical exercise, for the promotion of a healthier lifestyle in university students; 2) to implement the "HHVEVA" intervention program through psychoeducation, several sessions psychonutrition workshops and dynamic strength training. It is hypothesized that the HHVEVA program will produce a positive impact on psychoemotional, physical and social health in university students.

MATERIAL AND METHODS

RESEARCH DESIGN

This is a methodological protocol design of an interventionist educational program (prepost). *Template for Intervention Description and Replication* (TIDieR) (Hoffmann et al., 2014) was used in this design. The methodology used for data collection is quantitative and pre-post intervention design with intra-subject and inter-subject data comparison.

PARTICIPANTS

The sample consisted of 20 students aged 18 to 25 years (M = 21.09; SD = 1.8) (11 women and 9 men) organized into an intervention group (N = 12; 7 women and 5 men) and a control group (N = 8; 4 women and 4 men). These were undergraduate students (1° and 4°) of Physical Activity and Sport Sciences, Physiotherapy and Engineering of the European University of Madrid (UEM). Both groups would be evaluated in two moments (preintervention and post-intervention) by means of psychometric questionnaires, anthropometric tests and physical condition tests.

SAMPLE RECRUITMENT

Students were recruited using the technique of dissemination of posters placed in various physical and virtual spaces of the EMU. The poster included a "QR" code linked to a questionnaire elaborated in "Google forms" for enrollment in the information session prior to the start of the study. To participate in the study, they had to meet the inclusion criteria detailed in Table 1. The sampling technique applied was non-probabilistic by convenience (Ozten & Manterola, 2017).

Inclusion criteria	Exclusion criteria
Be undergraduate university students over 18 years of age and up to 29 years of age.	Students under 18 and over 29 years of age.
Commit to participate in 90% of the intervention sessions.	Attendance of less than 90% of the face-to-face sessions.
Not having metabolic, mental and anatomical-functional pathology diagnosed and with contraindications for the practice of physical exercise.	Failure to complete all data collection tests before and after the intervention.

Table 1. *Inclusion criteria and sample inclusion.*

QUANTITATIVE AND QUALITATIVE DATA COLLECTION VARIABLES AND TOOLS

The variables under study and the measures/instruments used for data collection are described below.

DEPENDENT VARIABLES

Behavioral variables

Emotional regulation. The Emotional Regulation Questionnaire (ERQ, Gross and Johnson, 2003) was administered to determine emotional regulation strategies, using the version adapted to Spanish and to the adult population. It consists of 9 items (e.g., "when I want to feel more positive emotions -such as joy or fun-, I change what I am thinking"), with a Likert-type scale ranging from 1 (disagree) to 7 (agree).

Meta-cognition of emotional states. The *Trait Meta-Awareness of Emotional States Scale* (TMMS-24) based on the *Trait Meta-Mood Scale* (TMMS) of Salovey et al. (1995), which measured emotional attention, emotional clarity and emotional repair, was used. It is a Likert-type scale from 1 (strongly disagree) to 5 (strongly agree), with 8 items for each dimension (e.g., "I am able to attend to feelings appropriately").

Lifestyle variables

Lifestyle. The Health Promoting Lifestyle Questionnaire (PEPS II, Walker and Hill-Polerecky, 1996; Walker et al. 1990) was used. The questionnaire is composed of a total of 52 items with a Likert-type scale from 1 (never) to 4 (routinely) with a minimum score of 52 and a maximum score of 200. 6 dimensions are measured: physical activity (e.g. "I follow a planned exercise program"), nutrition (e.g. "I limit the use of sugars and sugarcontaining foods"), spiritual development (e.g. "I believe my life has a purpose"), interpersonal relationships (e.g. "I maintain meaningful and nurturing relationships") and stress management (e.g. "I focus on pleasant thoughts at bedtime").

Adherence to the Mediterranean diet Adherence to the Mediterranean diet was assessed with the *Mediterra-nean Diet Adherence Screener* (MEDAS), which consists of 14 items. Each item adds 0 or 1 point. To obtain a result of good adherence to the Mediterranean diet, the sum must be equal to or greater than 9 points.

Health status variables

Physical condition. Maximal strength was assessed based on mean propulsive velocity (MPV) of the 1st repetition in bench press and squat exercises using the *standard* "T-Force" encoder. Cardiorespiratory endurance (heart rate, HR and oxygen saturation values, SO₂)

was measured with the 20 m repeated sprints test (6 sprints). HR and SO_2 were recorded at the beginning and end of the test, as well as the total time spent.

Evaluation of anthropometry and body perimeters. The bioimpedance scale (Tanita-BC 545N) was used. Body composition values (% muscle mass, % fat mass, % water mass, basal metabolism [BM], body mass index [BMI]) and total body mass were recorded. In addition, perimeters or body contours were measured (pectoral, waist, hip, biceps contour relaxed and in contraction at 90°, central femoral region with lower limb at 90°).

QUALITATIVE DATA COLLECTION INSTRUMENTS

A semi-structured interview (Ibarra-Saíz et al., 2023) with 7 open-ended questions was developed to learn about the participants' perception of their personal impact at the emotional, psychonutritional and physical levels. One of the 7 questions refers to the transfer of the experience lived in the study to other areas of their lives.

Independent variable

The HHVEVA (Habilidades para la Vida y Estilo de Vida Activo) intervention program. We propose the design of an educational interventionist program of mixed methodology (quantitative-qualitative) with a duration of 10 weeks.

RESULTS

The phases of the HHVEVA program design are presented in relation to the first objective of this study.

DESIGN PHASES OF THE HHVEVA PROGRAM

The HHVEVA program was created in three phases described in Table 2. In relation to the professionals responsible for the program, it was designed by three researchers from the UEM, two of them with PhDs in CCAFyD (Sciences of PA and Sport), one of them with a PhD in Psychopedagogy. In addition, a fourth member, a 4th degree student of CCAFyD, contributed to the design and implementation of the dynamic strength training sessions, as part of the subject of "external practices". For the design and implementation of the psychonutrition workshops, we had the advice and collaboration of a nutritionist (PhD student) expert in the prevention of eating disorders.

Table 3 describes the types of sessions, the contents, the objectives and the theoretical paradigm on which the design of the HHVEVA program is based.

IMPLEMENTATION OF THE HHVEVA PROGRAM

Prior to the implementation of the HHVEVA program, during the first week of April 2024, pre-intervention data was collected on the variables under study using the instruments described in section 2.3. Participants were summoned (in pairs) to attend the EMU training laboratory where strength tests were performed according to speed (squat and bench press), anthropometry and measurement of perimeters. The repeated sprints endurance test was performed on the athletics track. Table 4 shows the sequence of pre-intervention data collection (1st week of April, Wednesday and Thursday).

Once the pre-intervention data were collected, the implementation of the HHVEVA program began in the 2nd week of April 2024. Schedules were agreed upon with participants to ensure commitment to attendance.

LOYALTY OF THE HHVEVA PROGRAM

To guarantee a correct implementation of the program, a communication channel was established between the facilitators of the sessions via whatsapp, video calls and two face-to-face meetings.

DISCUSSION

The present study aimed to the design and implementation interventionist program (HHVEVA Program, "life skills and active lifestyle") as a strategy for the acquisition of emotional regulation skills, social skills and development of an active life at a physical level in students. This proposal focuses on the fact that mental health is essential for a good quality of life, and is closely related to physical health. Mental health pathologies are disorders that affect a person's thinking, mood and behavior. They can be caused by a combination of genetic, biological, environmental and psychological factors, are very debilitating and can affect a person's ability to work, study, maintain interpersonal relationships and care for themselves.

A mixed-methodology (quasi-experimental (pre-test and post-test) quasi-experimental (quanti-quanti-quanti) study design has been proposed, with a non-randomized experimental group (EG) and a non-randomized control group (CG). It is essential to be able to replicate and improve the intervention program over time and in different national and international university contexts.

In relation to intervention programs in higher education, there are intervention proposals designed to help university students with mental health problems, or without them, but with the aim of taking care of this aspect and improving the quality of life of university students. For example, we find recent studies

Shares	Phase 1	Phase 2	Phase 3
	1) Approval of the EMU Ethics Committee.	3) Design of the intervention sessions:	4) Recruitment of the sample and selection of spaces and materials (questionnaires and physical tests).
	- 8 sessions of psychology: applied to academic properties (60 min./session) state of the art, aresearch questions, sessions (50 min/sessions (50 min/sessions).	- 8 sessions of psychoeducation	5) Information session prior to the start of the study.
			6) Beginning of the intervention program the 2nd week of April 2024. On Wednesday of this week, the 1st psychoeducation session and the 1st physical training session were held.
		(60min./session).	7) Program loyalty.

Table 2. HHVEVA program design phases.

Type of sessions	Session/Contents	Objectives	Theory/paradigm	
Psychoeducation	Session 1. Integral health	To know the meaning of "mental health".	_	
	Session 2. Emotions and academic challenges	Examine emotions derived from academic challenges.		
	Session 3. Emotional Conflicts	To put into practice the resolution of practical cases of personal and social emotional conflicts.	Motivation and Emotion (Reeve, 2012). Emotional Intelligence (Goleman, 1995) Biopsychosociocultural	
	Session 4. Internal dialogue	Become aware of the thoughts associated with emotions and their connection with the body.		
	Session 5. Parentalization	Explore parenting models and how they condition our reactions.	Model (Braumen, 2012)	
	Session 6. Life script, mandates and existential positions	To deepen one's own life script by becoming aware of the mandates received in childhood.	Transcontextual Model of Motivation (MTM)	
	Session 7. Psychological games	To identify and develop psychological games.	(Hagger and Cha	
	Session 8. Setting Limits and Learning to Communicate	To work on practical assumptions to establish an adequate social and emotional communication, preventing psychological games.		
Psychonutrition workshops	Workshop 1. Food groups and the way we nourish ourselves	Knowing the food groups and how to regulate daily intakes.	- Nutrition education	
	Workshop 2. Emotional Regulation of Eating Behavior	Examine the relationship between emotion and eating.		
	Workshop 3. Academic challenges and food	Develop sample meals for improved academic performance.		
Training sessions*.	Session 1. Postural reeducation and Bracing	Transmit physical exercise techniques and the associated physiological and emotional response, through postural reeducation and abdominal work "Bracing".		
	Mobility and Lower Body Strength Session 2.	Begin work of integral mobility and strength of lower limbs with own body weight.	Principles of strength	
	Mobility and Upper Body Strength Session 3.	To develop integral mobility and upper limb strength work with one's own body weight.	training, optimal joint range of motion and development of	
	Session 4. Initiation to climbing	To implement the transversal work of psychoeducation "4. Internal Dialogue" and the practice of climbing.	autonomy.	
	Session 5. Lower Body Hemisphere Strength (lower limbs)	Perform lower limb strength work with equipment (free weights and fitball).	Basic principles of calisthenics training.	
	Session 6. Upper body hemisphere strength (upper limbs)	Continue upper limb strength work with equipment (free weights).	Responsibility and adherence to regular	
	Session 7. Strength	Advance lower limb strength work with load variation (kg. and speed of execution).	physical exercise.	
	Session 8. Full Body Strength	Achieve maximum muscle involvement and intermuscular coordination in compound and sequential exercises.	-	

Table 3. Sessions, contents, objectives and theoretical paradigm for the implementation of the HHVEVA program.

^{*}Note: Participants have been provided with an individualized strength training program of 20 min. to perform autonomously twice a week. This schedule is shared through the application "Google Keep: notes and lists".

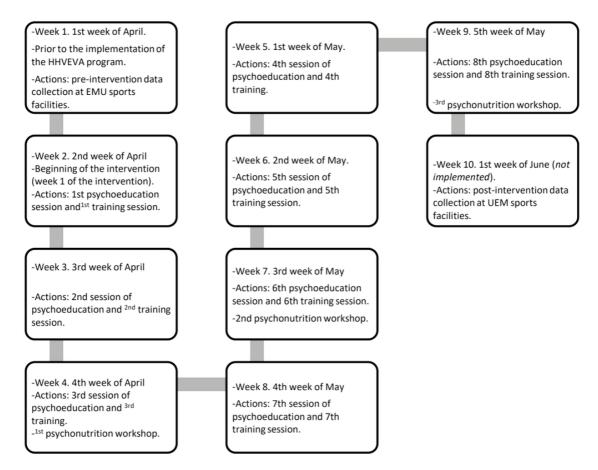


Figure 1. *Timeline for the implementation and data collection of the HHVEVA program.*

*Note: the program is in the process of implementation and post-intervention data collection until June 2024.

that focus on improving empathy through the development of emotional intelligence (Barqueros-López et al., 2019), improving stress and assertive strategies or personal wisdom (Arteaga-Checa et al., 2022). In turn, there are various theories that have been studied for years with university students therapies related to cognitive-behavioral theory (Stice et al., 2009).

The proposal presented provides participants with practical tools that they can implement to improve their intra- and interpersonal skills (mental health) in conjunction with their physical health, thus improving their autonomy in achieving and maintaining their overall health.

CONCLUSIONS

It is concluded that the design of the intervention program "HHVEVA" has integrated the development of psychological approach, emotional regulation of eating behavior, physical exercise behavior and interpersonal relationships in university students.

The implementation of the "HHVEVA" intervention program has enabled university students to become aware of their cognitions, emotions and improved physical condition for coping with academic challenges. All this, in order to promote emotional well-being, resilience and quality of life of students.

REFERENCES

Arteaga-Checa, M., Palop-Montoro, M.V., & Manzano-Sánchez, D. (2022). Application of a Program to Improve Personal Development in Future Physical Education Teachers of the Degree in Education and Its Relationship with Wisdom. *Sustainability*, 14, 1188. https://doi.org/10.3390/su14031188

Barqueros-López, S., Gómez-Sánchez, R., & Gómez-Díaz, M. (2019). Efectividad de un Programa de Intervención en Habilidades Socioemocionales para el Desarrollo de la Empatía en Alumnos de Primero de Enfermería de una Universidad Privada. *Revita de Psicología de la Salud*, 7(1), 45-61. https://doi.org/10.21134/pssa.v7i1.873

Bauman, A. E., Reis, R. S., Sallis, J. F., Wells, J. C., Loos, R. J., Martin, B. W., & Lancet Physical Activity Series Working Group (2012). Correlates of physical activity: why are some people physically active and others not? *Lancet* (London, England), 380(9838), 258–271. https://doi.org/10.1016/S0140-6736(12)60735-1

Echegoyén Calderón, E. N., Escobar Avelar, M. A., & Monterrosa Hernández, H. A. (2022). Satisfacción de las necesidades psicológicas básicas, indicadores de calidad de educación superior y estrategias de aprendizaje de los estudiantes de pregrado en universidades acreditadas en El Salvador. *Investigaciones UCA*, 1(2), 225–230. https://doi.org/10.51378/iuca.v1i2.7794

Goleman, D. (1995). Emotional Intelligence. New York: Bantam Books (trad. cast.: Inteligencia Emocional. Barcelona: Paidós.

Hagger, M. S., & Chatzisarantis, N. L. D. (2009b). Integrating the theory of planned behaviour and self-determination theory in health behaviour: a meta-analysis. British Journal of Health Psychology, 14(2), 275-302.

He, T., Breithaupt, F., Kübler, S. et al. (2023). Quantifying the retention of emotions across story retellings. *Scientific Report*, 13, 2448 . https://doi.org/10.1038/s41598-023-29178-8.

Hoffmann, T.C., Glasziou, P.P., Boutron, I., Milne, R., Perera, R., Moher, D., Altman, D.G., Barbour, V., Macdonald, H., Johnston, M., et al. (2014). Better reporting of interventions: Template for intervention description and replication (TIDieR) checklist and guide. *BMJ*, 348. https://doi.org/10.1136/bmj.g1687

Ibarra-Sáiz, M. S., González-Elorza, A., y Rodríguez-Gómez, G. (2023). Aportaciones metodológicas para el uso de la entrevista semiestructurada en la investigación educativa a partir de un estudio de caso múltiple. *Revista de Investigación Educativa*, 41(2), 501-522. https://doi.org/10.6018/rie.546401

Raymond K.W. S., Tristan W., Fong-Jia W., Siu-Ming C., Ming-Hui L., & Yong L. (2022). Effects of teachers' participation in continuing professional development on student's perceived physical literacy, motivation and enjoyment of physical activity. *Revista de Psicodidáctica*, 27(2), 176-185. https://doi.org/10.1016/j.psicoe.2022.05.003

Reeve, J. (2012). Motivación y Emoción. Editorial Mcgraw hill.

Stice, E., Shaw, H., Bohon, C., Marti, C. N., & Rohde, P. (2009). A meta-analytic review of depression prevention programs for children and adolescents: factors that predict magnitude of intervention effects. *Journal of consulting and clinical psychology*, 77(3), 486-503. https://doi.org/10.1037/a0015168

Wright, P. M., & Burton, S. (2008). Implementation and outcomes of a responsibility-based physical activity program integrated into an intact high school physical education class. *Journal of Teaching in Physical Education*, 27(2), 138–154. https://psycnet.apa.org/record/2008-14303-001