self-rated fitness (SRF) as predictors of all-cause mortality. Moreover, we also examined whether any protective effect of SRH on premature mortality was mediated by SRPA, SRF.

Methods. SRH, SRPA and SRF were self-reported in 7111 participants, aged 16 to 96 years, by asking their perceptions of health, PA and fitness, respectively, in comparison with their age peers. Based on their ratings participants were categorised in 3 incremental groups. Cox proportional hazards regression was used to examine associations between SRH, SRPA, SRF and all-cause mortality.

Results. During a median follow-up of 23 years, 1850 deaths occurred. SRH, SRPA and SRF were inversely and independently associated with mortality ($P < 0.05$) after adjustment for sex, age, socio-economic and marital status, body mass index, baseline medical conditions, parental history of chronic disease, fruit, vegetable and alcohol intake, and smoking habits. The association between SRH and mortality remained significant following additional adjustment for SRPA, SRF. Self-rated factors combined were associated with a more than 50% reduced hazard for premature mortality when comparing extreme categories.

Conclusion. SRH, SRPA and SRF are independent predictors of mortality. Perceptions of health, physical activity and fitness may be valuable additional tools in epidemiological studies, health surveillance and the clinical setting.

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Do overall physical fitness and subjective well-being help patients cope with fibromyalgia severity? The al-Ándalus project

F. Estévez-López[a,b,*], C.M. Gray[b], V. Segura Jiménez[a], A. Soriano-Maldonado[a], I.C. Álvarez-Gallardo[a], M.J. Arrayás-Grajera[c], A. Carbonell-Baeza[d], V.A. Aparicio[a,e], M. Delgado-Fernández[a], M. Pulido-Martos[f]

[a] *Department of Physical Education and Sport, Faculty of Sport Sciences, University of Granada, Granada, Spain*
[b] *Institute of Health and Wellbeing, University of Glasgow, Glasgow, UK*
[c] *Department of Physical Education, Music, and Fine Arts, Faculty of Education, University of Huelva, Huelva, Spain*
[d] *Department of Physical Education, Faculty of Sciences Education, University of Cádiz, Cádiz, Spain*
[e] *Department of Physiology, Faculty of Pharmacy, University of Granada, Granada, Spain*
[f] *Department of Psychology, School of Humanities and Sciences of Education, University of Jaén, Jaén, Spain*
Correo electrónico: festevez@ugr.es (F. Estévez-López).

Keywords: Chronic pain; Functional capacity; Health psychology; Physical function; Positive psychology; Resilience (psychological)

Aim. The purposes of the current study were: (i) to analyse the associations of overall physical fitness (OPF) and subjective well-being (SWB) with fibromyalgia symptom severity (FS); and (ii) to test the combined effect of OPF and SWB on FS among female patients.

Methods. This cross-sectional study included 424 fibromyalgia women. OPF and the components of SWB, positive affect (PA), negative affect (NA) and cognitive well-being (CWB), and FS were assessed by means of the Functional Senior Physical Fitness Test Battery, the Positive And Negative Affect Schedule, the Satisfaction With Life Scale, and the Fibromyalgia Impact Questionnaire, respectively.

Results. Significant associations of OPF, PA, NA, and CWB (β=-.23, β=-.18, β=.26, and β=-.18, respectively) with FS were observed. The combination of high OPF and high PA, low NA, or high CWB reduced FS by ~20% (Cohen's $d > 1.0$).

Conclusion. Our findings support that multidisciplinary interventions aimed to increase physical fitness holistically and to enhance subjective well-being may be particularly advisable for patients with low OPF and low SWB.

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Socioeconomic Factors and Abdominal Obesity in European and Brazilian Adolescents: Data from Two Observational Studies

E.C.O. Forkert[a,b,*], A.C.F. de Moraes[a,b,c], H.B. Carvalho[a], A. Kafatos[e], D. Jiménez-Pavón[b,f], K. Widhalm[g], F. Gottrand[h,i], S. Gómez-Martínez[j], O. Androutsos[k], M. Ferrari[l], D. Cañada[m], L.A. Moreno[b,c,d]

[a] *School of Medicine of the University of São Paulo – Department of Preventive Medicine, São Paulo/SP, Brazil*
[b] *GENUD - Growth, Exercise, Nutrition and Development, University of Zaragoza, UNIZAR /Spain*
[c] *Faculty of Health Sciences of the University of Zaragoza, Zaragoza/Spain*
[d] *Visiting Professor, School of Medicine of the University of São Paulo – Department of Preventive Medicine, São Paulo/SP, Brazil*
[e] *Preventive Medicine and Nutrition Unit, University of Crete School of Medicine, Heraklion, Crete, Greece*
[f] *PROFITH Group, Department of Physical Education and Sports,School of Sport Sciences, University of Granada, Granada, Spain*
[g] *Division of Nutrition and Metabolism, Department of Pediatrics,Medical University of Vienna,Vienna, Austria*
[h] *Unité Inserm U995 and Université Lille Nord de France, Lille, France*
[i] *Centre d'Investigation Clinique,CIC-9301 – Inserm – CH&U, Lille, France*
[j] *Immunonutrition Research Group.Department of Metabolism and Nutrition. Institute of Food Science and Technology and Nutrition (ICTAN).Spanish National Research Council (CSIC), Madrid, Spain*
[k] *Department of Nutrition and Dietetics, Harokopio University, Athens, Greece*
[l] *CRA-NUT,Agricultural Research Council – Food and Nutrition Research Centre, Rome, Italy*
[m] *ImFine Research Group,Universidad Politécnica de Madrid*
Correo electrónico: elsie@centerlink.com.br (E.C.O. Forkert).

Keywords: Adolescents; Abdominal obesity; Socioeconomic status; Waist circumference; Waist to height; Cross-sectional study

Objectives. This study aimed to different socioeconomic indicators as parental education, and occupation, and Family Affluence Scale (FAS), related to abdominal obesity in adolescents from two observational studies, HELENA and BRACAH.

Methods. Brazilian (n = 991, 54.5% girls aged 14-18y, BRACAH study) and European (n = 3528, 52.3% girls aged 12.5-17.5y, HELENA study) participant adolescents were recruited in two cross-sectional studies. From the total number (n = 3528) of adolescents studied in HELENA, we included in this analysis 3192, 53.1% girls. Adolescents with complete information on waist circumference (WC), height, socioeconomic status indicators and confounding variables (center, physical activity and sedentary behavior) were included. Socioeconomic indicators were measured through a self-reported questionnaire in order to assess the family social status from the adolescents. Multilevel linear regression models were used and results were adjusted for potential confounders.

Results. In *European girls*, mother's and father's education levels were inversely associated with waist to height ratio ($p < 0.0001$).

Waist to height ratio (WHtR) was 0.42, when fathers and mothers had the highest level of education and 0.45 when they had the lowest level. The same inversely association was observed in *European girls* between FAS and WHtR, (p = 0.0112) that showed 0.43 when they had the highest level of FAS and, 0.44 when the level was the lowest. However, this association was not observed between FAS and WC. Similarly, the inverse association was observed in *European girls*, when evaluating the relationship between parental education and WC. On the highest level of mother's education, WC was 69.3 cm (p = 0.0099) and for father's education was 69.2 cm (p = 0.0014). There was not any association in boys and when considering parent's occupation.

Conclusions. In European adolescent girls, abdominal obesity (WC and WHtR) was associated with the education levels of the parents. Health promotion programs aiming to reduce abdominal obesity should give special consideration to low education level families.

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Efectos de diferentes tipos de ejercicio físico aeróbico con intervención nutricional en la tensión arterial, masa y composición corporal y condición cardiorespiratoria en personas con sobrepeso e hipertensión primaria: estudio preliminar

I. Gorostegi-Anduaga[a], I. Labayen[b], J. Pérez-Asenjo[c], M. Illera-Villas[b], S. Maldonado-Martín[a,*]

[a] *Departamento de Educación Física y Deportiva. Facultad de Ciencias de la Actividad Física y del Deporte. Universidad del País Vasco (UPV/EHU). Vitoria-Gasteiz, Araba-Álava, País Vasco, España*
[b] *Nutrición y Bromatología. Universidad del País Vasco (UPV/EHU). Vitoria-Gasteiz, Araba-Álava, País Vasco, España*
[c] *Unidad de Cardiología. Igualatorio Médico Quirúrgico (IMQ). Vitoria-Gasteiz, Araba-Álava, País Vasco, España*
Correo electrónico: sara.maldonado@ehu.es (S. Maldonado-Martín).

Palabras clave: Hipertensión arterial; Intensidad alta; Interval; Intensidad moderada; Dieta hipocalórica; Consumo de oxígeno pico

Objetivo. Comparar los efectos de dos programas de ejercicio físico (EF) aeróbico (continuo de intensidad moderada y alto volumen vs. interválico de alta intensidad y bajo volumen) en la masa y composición corporal, presión arterial (PA) y condición cardiorespiratoria en pacientes adultos con sobrepeso u obesidad e hipertensión primaria tratados con dieta hipocalórica; con los efectos mediante tratamiento único con dieta hipocalórica.

Métodos. Se tomaron mediciones de masa y composición corporal, PA y prueba pico ergoespirométrica a 31 participantes (56 ± 9 años) antes y después de 16 semanas de intervención. De forma aleatoria se repartieron en tres grupos paralelos: GC (n = 11), grupo control con tratamiento único con dieta hipocalórica (25% restricción energética) y recomendaciones de estilo de vida saludable; GEC (n = 10), grupo de EF supervisado (2 días/sem) en modo continuo a intensidad moderada (60-80% FCpico), alto volumen (45 min) y dieta hipocalórica; y GEI (n = 10), grupo de EF supervisado (2 días/sem) en modo interválico a intensidad alta (85-95% FCpico), bajo volumen (20 min) y dieta hipocalórica.

Resultados. Comparando antes vs después de la intervención se observaron descensos (P < 0,05) en todos los grupos del estudio en la masa corporal, masa grasa y PA media (PAM). Sin embargo, la condición cardiorespiratoria valorada en términos relativos (VO2pico y MET) presentó incrementos sólo en los grupos de EF supervisado (GEC: 25,6 vs 29,4 mL·kg-1·min-1, P = 0,005; 7,3 vs 8,4 METS, P = 0,03; GEI: 21,6 vs 27,0 mL·kg-1·min-1, P = 0,009; 6,2 vs. 7,7 METS, P = 0,02),) y sin cambios significativos en GC (22,1 vs 25,1 mL·kg-1·min-1, P = 0,1; 6,7 vs 7,2 METS, P = 0,2).

Conclusiones. Tanto un tratamiento único con dieta hipocalórica como combinado con EF aeróbico consiguen reducir la masa y grasa corporal y PA en reposo en pacientes con hipertensión y sobrepeso. Sin embargo, solamente el tratamiento combinado (dieta + EF) consigue mejoras añadidas en la condición cardiorespiratoria, lo que se asocia a una reducción del riesgo de enfermedad cardiovascular. El protocolo de EF aeróbico de alta intensidad y bajo volumen podría resultar más efectivo con incrementos superiores de las variables cardiorespiratorias, concluyendo que "menos" puede ser "más". Estos resultados son preliminares precisando confirmación con un mayor tamaño muestral.

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Associations between patterns of active commuting and socioeconomic factors in women with fibromyalgia: the al-Ándalus Project

M. Herrador-Colmenero*, I.C. Álvarez-Gallardo, V. Segura-Jiménez, F. Estévez-López, A. Soriano-Maldonado, P.J. Ruiz-Montero, M.J. Girela-Rejón, M. Delgado-Fernández, P. Chillón

Department of Physical Education and Sport, Faculty of Sport Sciences, University of Granada, Spain
Correo electrónico: mhc@ugr.es (M. Herrador-Colmenero).

Keywords: Active transportation; Chronic pain; Social-economic factors

Background. Fibromyalgia is associated with a debilitated physical function, which limits activities of daily living. Active commuting might be a way of increasing physical activity levels. Understanding potential social-economic factors associated to active commuting are necessary to promote strategies aiming at increasing physical activity behaviours.

Objective. The aims were: to compare the patterns of commuting between fibromyalgia women and healthy women; and to examine the associations between active commuting and socioeconomic factors in fibromyalgia women.

Method. This cross-sectional study included a total of 459 women satisfying the 1990 American College of Rheumatology criteria and 214 healthy women from Andalusia. Active commuting to local shops, supermarket, local facilities and work/study place were assessed by mode of commuting questionnaire. Active commuter and active worker commuter dichotomous variables were created. Civil status, accompaniment at home, living with, educational level, current occupational status and professional status were assessed by socioeconomic factors questionnaire. Differences between fibromyalgia and healthy women on the patterns of commuting were performed using the Chi-square test. Associations between active commuting and social-economic factors were performed using binary logistic regression.

Results. No differences in the percentage of active commuters were observed between fibromyalgia and control women (69 vs. 73%). The percentage of active workers commuters did not vary between the fibromyalgia and control groups (71 vs. 67%). Differences in the percentage of active commuting to supermarket were observed between fibromyalgia and controls (46 vs. 56%, p = 0.020,