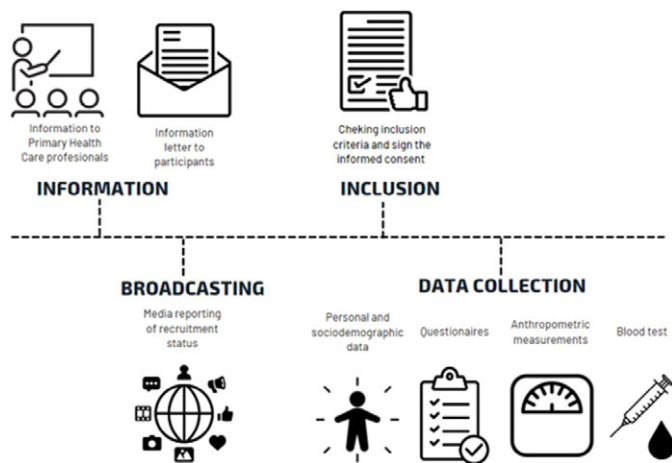


**Image:**

**Conclusions:** Gender modifies the ways in which technologies are used, so that men have a more problematic use of video games and the Internet than women. On the other hand, in relation to emotional symptoms, it was observed that women presented more anxiety and less satisfaction with life than men. The evaluation of abuse of new technologies cts should be incorporated into health services to improve people's ability their self-care, the level of knowledge of managing their disease and their physical, mental and social health.

**Disclosure of Interest:** None Declared

**EPP0407**

### Relationship between Signals Regulating Energy Homeostasis and Neuropsychological and Clinical Features in Gambling Disorder: A Case-Control Study

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doi: 10.1192/j.eurpsy.2023.722

**Introduction:** The neurobiology of gambling disorder (GD) is not yet fully understood. Although dysfunctional signalling involved in

energy homeostasis has been studied in substance use disorders, it should be examined in detail in GD.

**Objectives:** To compare different endocrine and neuropsychological factors between individuals with GD and healthy controls (HC), and to explore endocrine interactions with neuropsychological and clinical variables.

**Methods:** A case-control design was performed in 297 individuals with GD and 41 HC, assessed through a semi-structured clinical interview and a psychometric battery, adding 38 HC in the evaluation of endocrine and anthropometric variables.

**Results:** Individuals with GD presented higher fasting plasma ghrelin ( $p < .001$ ) and lower LEAP2 and adiponectin concentrations ( $p < .001$ ) than HC adjusting for body mass index (BMI). The GD group reported higher cognitive impairment regarding cognitive flexibility and decision-making strategies, a worse psychological state, higher impulsivity levels, and a more dysfunctional personality profile. Despite failing to find significant associations between endocrine factors and either neuropsychological or clinical aspects in GD, some impaired cognitive dimensions and lower LEAP2 concentrations significantly predicted GD presence.

**Conclusions:** This study suggests distinctive neuropsychological and endocrine dysfunctions may operate in individuals with GD, predicting GD presence. Further exploration of endophenotypic vulnerability pathways in GD appear warranted, especially with respect to etiological and therapeutic potentials.

**Disclosure of Interest:** F. Fernandez-Aranda Consultant of: Novo Nordisk, Employee of: editorial honoraria as EIC from Wiley, I. Baenas: None Declared, M. Etxandi: None Declared, B. Mora-Maltas: None Declared, R. Granero: None Declared, S. Tovar: None Declared, C. Diéguez: None Declared, M. Potenza Grant / Research support from: Mohegan Sun Casino and Connecticut Council on Problem Gambling, Consultant of: Opiant Pharmaceuticals, Idorsia Pharmaceuticals, Baria-Tek, AXA, Game Day Data and the Addiction Policy Forum; has participated in surveys, mailings or telephone consultations related to drug addiction, impulse control disorders or other health topics; and has consulted for law offices and gambling entities on issues related to impulse control or addictive disorders, Employee of: patent application in Yale University and Novartis, S. Jiménez-Murcia: None Declared.

**Child and Adolescent Psychiatry 04****EPP0409**

### Relationship between elimination disorders and internalizing-externalizing problems in children: A systematic review and meta-analysis

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doi: 10.1192/j.eurpsy.2023.723

**Introduction:** Elimination disorders (ED) include enuresis, defined as wetting from 5 years, and encopresis, defined as soiling from 4 years onwards after organic causes are excluded. They are highly prevalent in childhood and often associated with clinically relevant comorbid psychological disorders. However, no systematic review or meta-analysis examines their co-occurrence with internalizing and externalizing problems in children.

**Objectives:** The aim of this study is to determine if, and to what extent, children with ED show higher internalizing and externalizing problems than their healthy peers.

**Methods:** A multistep literature search was performed from database inception until May 1st, 2022. PRISMA/MOOSE-compliant systematic review (PROSPERO: CRD42022303555) were used to identify studies reporting on internalizing and/or externalizing symptoms in children with an ED and a healthy control (HC) group. First, a systematic review was provided. Second, where data allowed for it, a quantitative meta-analysis using random effects model was conducted to analyze the differences between the ED and the HC groups for internalizing and externalizing symptoms. Effect size was standardized mean difference. Meta-regression analyses were conducted to examine the effect of sex, age, and study quality. Funnel plots were used to detect a publication bias. Where found, the trim and fill method was used to correct it.

**Results:** 36 articles were included, 32 of them reporting on enuresis (n=3244; mean age=9.4; SD=3.4; 43.84% female) and 7 of them on encopresis (n=214; mean age=8.6; SD=2.3; 36.24% female) [Image 1]. The ED group presented significantly lower self-concept (ES:0.42; 95%CI: [0.08;9.76]; p=0.017) and higher symptom scores for thought problems (ES:-0.26; 95%CI: [-0.43;-0.09]; p=0.003), externalizing symptoms (ES:-0.20; 95%CI: [-0.37;-0.03]; p=0.020), attention problems (ES:-0.37; 95%CI: [-0.51;-0.22]; p=0.0001), aggressive behaviour (ES:-0.33; 95%CI: [-0.62;-0.04]; p=0.025) and social problems (ES: 0.39; 95%CI: [-0.58;-0.21]; p=0.0001) [Image 2]. Significant publication biases were found across several of the studied domains [Image 3]. No significant effect of sex, age or quality of the study score was found.

Image:

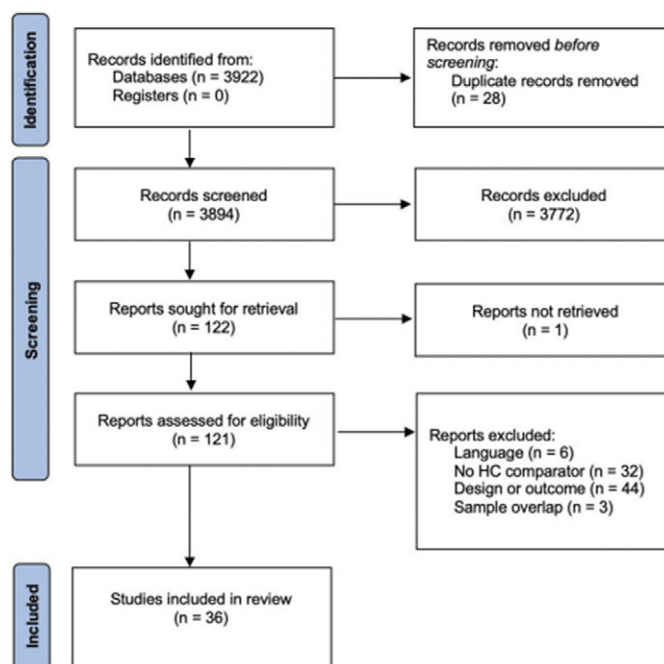


Image 2:

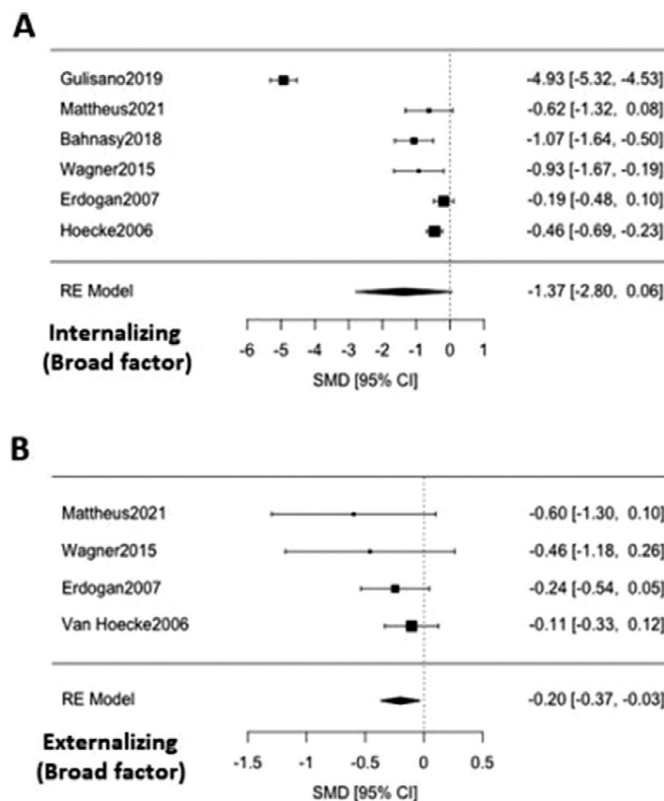
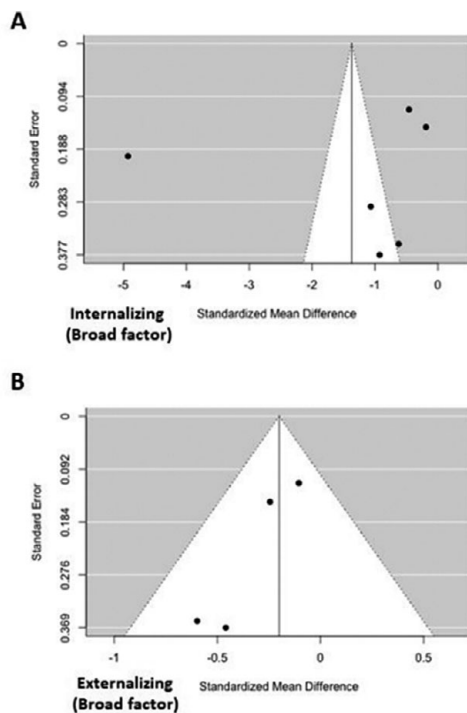


Image 3:



**Figure 2.** Funnel plots for the CBCL broad-band internalizing scale meta-analysis (A) and CBCL broad-band externalizing scale meta-analysis (B).

**Conclusions:** Children with an elimination disorder may have significant internalizing and externalizing problems, as well as impaired self-concept. It is recommendable to screen for them in children with ED and provide interventions as appropriate.

**Disclosure of Interest:** None Declared

## EPP0410

### Being Praised for Prosocial Behaviors Longitudinally Reduces Depressive Symptoms in Early Adolescents: A Population-Based Cohort Study

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doi: 10.1192/j.eurpsy.2023.724

**Introduction:** Depression is highly prevalent and causes a heavy burden in adolescent life. Being praised for prosocial behavior might be a preventive factor because both being praised and

prosocial behavior are protective against depression. However, no study has investigated the association between experiences of being praised for prosocial behavior and depressive symptoms in adolescents.

**Objectives:** Here, we investigated the longitudinal relationship between being praised for prosocial behavior and depressive symptoms in adolescents.

**Methods:** In Tokyo Teen Cohort study (TTC), an ongoing prospective population-based cohort study, we collected 3,171 adolescents' data on self-reported experiences of being praised for prosocial behavior, depressive symptoms, and caregiver-evaluated prosocial behavior. Ten-year-old children were asked to freely describe answers to the question "What are you praised for?". Only children who clearly answered that they were praised for their prosocial behavior were designated the "prosocial praise group." The degree of depression at ages 10 and 12 was measured with the Short Mood and Feelings Questionnaire (SMFQ), a self-report questionnaire about depression. Objective prosocial behavior of the 10 year-old children was assessed by the Strength and Difficulty Questionnaire (SDQ). Multiple linear regression analysis was performed using the SMFQ score at age 12 as the objective variable and being praised for prosocial behavior as the main explanatory variable, and the SMFQ score at age 10 and the objective prosocial behavior at age 10 were included as confounders.

**Results:** 3,007 pairs of child and their primary caregiver participated in the second data collection at the age of 12 years (follow-up rate was 94.8%). Regarding the question "What are you praised for?", 845 (28.1%) children answered that they were praised for prosocial behavior. Depressive symptoms (SMFQ scores) in the "prosocial praise group" were significantly lower than those in the other group both at age 10 ( $4.3 \pm 4.4$  vs.  $4.9 \pm 4.6$ ,  $p < 0.001$ ) and at age 12 ( $3.4 \pm 4.2$  vs.  $4.0 \pm 4.6$ ,  $p < 0.01$ ). In the single regression analysis, the children who reported being praised for prosocial behavior at age 10 had significantly lower depressive symptoms at age 12 (partial regression variable:  $-0.57$ , 95% confidence interval (CI)  $[-0.96, -0.17]$ ). This association remained significant after adjusting for confounders, including baseline depressive symptoms (partial regression variable:  $-0.44$ , 95% CI  $[-0.80, -0.08]$ ). Prosocial behavior alone was not associated with depressive symptoms.

**Image:**

**TABLE 2** | The association between being praised for prosocial behaviors at age 10 and depressive symptoms at age 12.

	Unadjusted			Adjusted		
	B	95% CI	p-value	B	95% CI	p-value
Being praised for prosocial behavior	-0.57	(-0.96 to -0.17)	0.005**	-0.44	(-0.80 to -0.09)	0.017*
Depressive symptoms at baseline <sup>a</sup>	0.43	(0.39 to 0.47)	<0.001***	0.43	(0.39 to 0.47)	<0.001***
Prosocial behavior at baseline <sup>b</sup>	-0.05	(-0.13 to 0.03)	0.221	-0.05	(-0.13 to 0.03)	0.221
Female sex	0.47	(0.11 to 0.77)	0.004**	0.47	(0.11 to 0.77)	0.004**
Age in month	0.03	(-0.02 to 0.07)	0.321	0.03	(-0.02 to 0.07)	0.321
Estimated IQ <sup>c</sup>	0.00	(-0.01 to 0.02)	0.497	0.00	(-0.01 to 0.02)	0.497
Number of siblings	0.17	(-0.02 to 0.36)	0.082	0.17	(-0.02 to 0.36)	0.082

B, regression coefficient; CI, confidence interval; IQ, intelligence quotient.

\*\*  $p < 0.005$ , \*  $p < 0.01$ , †  $p < 0.05$ .

Unadjusted: single regression analysis.

Adjusted: multiple regression analysis (multiple assignment methods; number of multiple imputations = 200) adjusted for depressive symptoms at age 10, parent-evaluated prosocial behavior at age 10, sex, age in months at age 10, estimated IQ at age 10 and number of siblings at age 10.

<sup>a</sup> Depressive symptoms were self-reported with the Short Mood and Feelings Questionnaire (SMFQ).

<sup>b</sup> Prosocial behaviors were parent-evaluated with a subscale from the Strength and Difficulty Questionnaire (SDQ).

<sup>c</sup> IQ was estimated from the two wide of scores in the Wechsler Intelligence Scale for Children (WISC-III).

**Conclusions:** Being praised for prosocial behavior rather than objective prosocial behavior at 10 years of age predicted lower depressive symptoms 2 years later. Praise for adolescents' prosocial behavior can be encouraged to prevent depression.

**Disclosure of Interest:** None Declared