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Original

Educational and wellbeing outcomes of an anxiety and depression prevention program for adolescents[☆]

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A B S T R A C T

Anxiety and depression are disorders associated with both high prevalence rates and comorbidity in adolescence. Despite the fact that schools are a key resource for mental health support programs for the prevention of mental disorders are scarce in this setting. The present work aims to study the ef?cacy of a program based on transdiagnostic cognitive-behavioral therapy to jointly prevent anxiety and depression. Speci?cally, the ef?cacy of this program is studied in relation to variables related to the school context and wellbeing: adjustment to school, indiscipline in the classroom, problems with peers, satisfaction with life, quality of life, and self-esteem. A total of 151 adolescents were randomized to the experimental group or the control group and completed a range of self-report questionnaires at three intervals (including a three-month follow-up). The intervention consisted of nine weekly sessions administered during school hours by two psychologists. The results showed a reduction in the academic expectations in the control group, while these remained constant in the experimental group. The implications of the results of this study are discussed in relation to previous literature and the limitations of this trial.

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Los efectos de un programa de prevención de la ansiedad y la depresión para adolescentes en variables educativas y de bienestar

R E S U M E N

La ansiedad y la depresión son trastornos que presentan altas tasas de prevalencia y comorbilidad en la adolescencia. A pesar de que los centros escolares constituyen un recurso clave para fomentar la salud mental, escasean los programas de prevención de los trastornos mentales en este contexto. El presente trabajo tiene como objetivo estudiar la eficacia de un programa basado en la terapia cognitivo-conductual transdiagnóstica para prevenir de forma conjunta la ansiedad y la depresión. En concreto, se estudia la eficacia de dicho programa en relación con las siguientes variables educativas y de bienestar: ajuste escolar, indisciplina en el aula, problemas con los iguales, satisfacción con la vida, calidad de vida y autoestima. Un total de 151 adolescentes fueron aleatorizados al grupo experimental o al grupo control y cumplimentaron varios cuestionarios autoinformados en tres momentos temporales (incluyendo un seguimiento a los tres meses). La intervención está compuesta por nueve sesiones semanales impartidas en horario escolar por dos psicólogas. Los resultados muestran una reducción de las expectativas académicas en el grupo control, mientras que estas se mantienen constantes en el grupo experimental. Se discuten las implicaciones de los resultados del trabajo teniendo en cuenta la literatura previa y las limitaciones del estudio.

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Introduction

The World Health Organization defines health as "a state of complete physical, mental and social wellbeing and not merely the absence of disease or illness" (WHO, 1998). The educational system plays a key role in helping children and adolescents enjoy a complete wellbeing; therefore, it should not only pay attention to educational variables related to academic performance but also focus on socio-emotional variables (Suldo, Gormley, DuPaul, & Anderson-Butcher, 2014).

Instruments that measure educational variables focus on different aspects: (a) the student's direct academic achievement (e.g., grades); (b) academic and behavioral skills (e.g., reading comprehension, classroom behavior); (c) attendance; (d) the quality of the learning environment (at school and at home); and, (e) academic self-efficacy (e.g., youth-reported perceptions of their own academic skills) (Becker, Brandt, Stephan, & Chorpita, 2014). On the other hand, changes in socio-emotional health are measured through two types of indicators (Suldo et al., 2014): (a) behavioral (e.g., social skills, bullying) and (b) psychological. The latter includes internalized problems (e.g., anxiety and depression), externalized challenges (behavior problems), and well-being variables (e.g., quality of life, self-esteem).

Several correlational and intervention studies indicate the existence of important links between educational and socio-emotional variables since favorable changes in one of these areas have a positive impact on the others (Suldo et al., 2014). For example, different reviews conclude that mental health programs seem to have a positive impact on educational variables, although only a few studies of this type evaluate educational variables as well as socio-emotional ones (Becker et al., 2014; Suldo et al., 2014).

Anxiety and depression disorders are very prevalent mental disorders in adolescence. In this stage, they increase (especially depression) and are associated with low school grades and less likelihood of school completion (Riglin, Petrides, Frederickson, & Rice, 2014). Without a doubt, schools are a key resource for identifying those students suffering from mental health problems, as well as a place for preventing disorders and fostering the personal development and well-being of the students (Zenner, Herrnleben-Kurz, & Walach, 2014).

In this sense, universal prevention programs, that is, those that target groups of people (e.g., all students in a class) without taking into account their symptoms or risk factors, present several advantages, such as not stigmatizing specific students, low dropout rates, or the positive reception they usually get from the Educational Community (Horowitz & Garber, 2006). In general terms, the universal prevention of anxiety and depression has been mainly addressed separately, with FRIENDS for life (Barrett, 2005) and the Penn Resiliency Program (Gillham, Brunwasser, & Freres, 2008) as the most evaluated programs (Ahlen, Lenhard, & Ghaderi, 2015).

However, several authors defend the relevance of preventing anxiety and depression at the same time, arguing that they have high comorbidity rates and share risk and maintenance factors such as neuroticism and poor emotional regulation (Ehrenreich-May et al., 2018; Essau & Ollendick, 2013). Transdiagnostic cognitive behavioral therapy (T-CBT) is a novel psychopathology approach characterized by addressing anxiety and depression disorders using unified treatment protocols. Unified protocols target etiological and maintenance factors shared between groups of disorders and therefore constitute a potentially effective and efficient tool to prevent anxiety and depression that occur together (Sandín, Chorot, & Valiente, 2012). However, in the preventive field there are only two T-CBT based protocols that prevent anxiety and depression: Super Skills for Life (Essau & Ollendick, 2013; Fernández-Martínez, Espada, & Orgilés, 2019) and EMOTION: "Coping Kids" Managing Anxiety and Depression (Kendall, Stark, Martinsen, O'Neil, & Arora, 2013). However, both programs target indicated prevention as well as children, not adolescents.

The main objective of this study is to analyze the effects that a universal T-CBT based prevention program for anxiety and depression has on a range of educational and socio-emotional variables. These six variables, along with their operationalization in this study, follow: (1) *school adjustment*: problems with school integration, perception of school performance, and future academic expectations (Moral de la Rubia, Sánchez-Sosa, & Villarreal-González, 2010); (2) *indiscipline in the classroom*: instructional and social indiscipline derived from the disruptive behaviors of the student in the classroom (Badia-Martín, Cladellas-Pros, Gotzens-Busquets, & Clariana-Muntada, 2012); (3) *problems with peers*: socio-emotional difficulties related to the perception of not having friends or not feeling comfortable with or appreciated by peers (Goodman, 2001); (4) *life satisfaction*: the global evaluation or the subjective cognitive judgment that a person makes about their own life (Diener, Emmons, Larsen, & Griffin, 1985); (5) *quality of life*: personal assessment of one's own physical and psychological well-being, the social support one receives, the school environment, and how leisure time is spent (KIDSCREEN Group, 2006); and, (6) *self-esteem*: someone's global positive or negative attitude toward their own worth as a person (Rosenberg, 1965).

The secondary objective of the present study is to analyze whether the results are influenced by gender and/or by the basal levels of anxiety and depression. Previous literature has shown contradictory results regarding the role of gender in the effectiveness of programs for the prevention of emotional disorders (Ahlen et al., 2015). On the other hand, various studies have found that these programs have more intense effects in children with higher previous symptoms (Horowitz & Garber, 2006; Gillham et al., 2012).

Method

Participants

The sample, chosen for convenience, consisted of 151 adolescents, 90 in the experimental group (EG) and 61 in the control group (GC). Participants were in ninth grade ($n = 90$, 61.2%) and tenth grade ($n = 57$, 38.8%) at a public school in the city of Madrid, Spain, which is 3° and 4° in the Spanish educational stage termed Compulsory Secondary Education (*Educación Secundaria Obligatoria*; ESO). The sample included 82 girls (54.3%). The mean age of the sample was 15.05 years ($SD = 1.14$). Most of the participants were born in Central and South America ($n = 90$; 61.2%), not Spain. The socioeconomic status, evaluated through the Family Affluence Scale (Currie et al., 2008), revealed the following results: low ($n = 46$; 31.5%), medium ($n = 63$; 43.2%), and high ($n = 37$; 25.3%).

The inclusion criteria for taking part in the investigation follows: (1) both the adolescent and at least one parent or legal guardian signed the informed consent, and (2) the adolescent had Spanish proficiency (based on a teacher report). No incentives were being given to the adolescents or the school for participating in this study.

Instruments

Revised Child Anxiety and Depression Scale (RCADS-30) (Sandín, Chorot, Valiente, & Chorpita, 2010). The RCADS-30 questionnaire includes six subscales (with 5 items each) that measure the symptoms of the following disorders: major depressive disorder, panic disorder, social phobia, separation anxiety disorder, generalized anxiety disorder, and obsessive-compulsive disorder. In the current sample, the internal consistency of the total scale (in T1) was excellent (α Cronbach = .92; ρ Bentler = .93).

School Adjustment Brief Scale (Escala Breve de Ajuste Escolar; EBAE-10) (Moral de la Rubia et al., 2010). The ten questions of this scale refer to three dimensions: *problems of adjustment at school* (5 items, e.g., "I have problems with the teachers of my school"); *self-perceived school performance* (3 items; "I think I am a good student" "I enjoy doing school work" and "I have good grades"); and *future academic expectations* (2 items, e.g., "I plan to finish high school" and "I am interested in going to university"). To adapt this questionnaire to a Spanish context, the term "Preparatoria" was changed to the term "Bachillerato," and the word "escuela" to "colegio." A Likert-type scale of 6 points was used with a range between 1 ("Completely agree") and 6 ("Completely disagree"). Throughout the different assessments, the consistency of the total scale was acceptable (α = .72–.76, ρ = .84–.87), as well as the consistency of the following dimensions: problems of adjustment at school (α = .66–.79; omega coefficient (ω) de McDonald = .69–.80), self-perceived school performance (α = .76–.77; ω = .78–.81), and academic expectations (α = .84–.93; ω = .86–.93).

General Indiscipline Scale (Escala de Indisciplina General; IG), adapted from Badia-Martín et al. (2012) questionnaire. In its original version, this questionnaire asks the students to place eleven disruptive behaviors (e.g., talking with classmates during class when they are not allowed to) in a bull's-eye according to their frequency. In the present adaptation, that frequency was indicated using a Likert-type scale (0 = never, 1 = only sometimes, 2 = quite a few times, and 3 = a lot of the time). The questionnaire showed good consistency: T1 (α = .75, ω = .75), T2 (α = .80, ω = .82), and T3 (α = .78, ω = .80).

Strengths and Difficulties Questionnaire (SDQ) (Goodman, 2001). The Spanish version was taken from the SDQ website (retrieved from https://www.sdqinfo.org). The results of the subscale named *peer problems* were analyzed (e.g., "other children or young people pick on me or bully me"). The SDQ includes three options to answer: 0 = not true, 1 = somewhat true, 2 = certainly true. The consistency of this subscale in the current study was poor: T1 (α = .52, ω = .53), T2 (α = .57, ω = .56) and T3 (α = .56, ω = .58).

Satisfaction with Life Scale for Children (SWLS-C) (Sandín, Chorot, & Valiente, 2015; children and adolescents' version of the SWLS of Diener et al., 1985). The respondents indicate to what degree each of the 5 items (e.g., "for the most part, my life is how I would like it to be") is true of their life using a 5-point, Likert-type scale ranging from 1 ("not at all") to 4 ("a lot or completely"). The consistency of the questionnaire in the current sample was good: T1 (α = .81, ω = .82), T2 (α = .88, ω = .89) and T3 (α = .86, ω = .86).

Kidscreen-10 (KIDSCREEN Group, 2006). This 10-item questionnaire assesses a wide range of aspects regarding quality of life, quality of leisure time ("have you been able to do the things that you want to do in your free time?"), or the experience of uncomfortable emotions (e.g., "have you felt lonely?"). It is answered through a Likert-type scale that ranges from 1 ("not at all") to 5 ("extremely"). In this study, the questionnaire showed good consistency: T1 (α = .82, ω = .83), T2 (α = .85, ω = .85) and T3 (α = .82, ω = .82).

Escala de autoestima (Self-Esteem Scale; SES) (Rosenberg, 1965). The Spanish adaptation from Sandín, Valiente, and Chorot (2008) was used. In this questionnaire, respondents are asked to indicate how much they agree with each of the 10 items (e.g., "I feel that I am a person of worth") on a 4-point scale ranging from 1 = strongly disagree to 4 = strongly agree. The consistency of the questionnaire in the current sample was good: T1 (α = .83, ω = .84), T2 (α = .91, ω = .81) and T3 (α = .87, ω = .87).

Procedure

The Research Ethics Committee of the National Distance Education University (UNED, Madrid, Spain) granted ethical approval,

and all adolescents as well as their parents or guardians signed an informed consent. A professor at the UNED not involved in the current project randomized each of the participating classes (three groups of ninth graders and two groups of tenth graders) to the EG or the CG using a computerized random number generator and a balanced design. Two ninth-grade classes and one tenth-grade class were randomized to the EG, whereas one ninth-grade class and one tenth-grade class were randomized to the CG.

Regarding the study design, this project constitutes a three measurements x two groups cluster randomized control trial. Participants completed several questionnaires at three time points during the 2016–2017 school year: one week before the EG started the intervention (T1; n = 148), one week after the EG finished the intervention (T2; n = 137) and three months after the EG finished the intervention (T3; n = 120). A large set of questionnaires (García-Escalera et al., 2017) was completed during school hours designated for "Tutorías" (weekly sessions meant to target issues occurring within the school context, such as providing academic support), including the questionnaires whose results are discussed in this article.

Given the lack of universal T-CBT based protocols aimed to prevent anxiety and depression in adolescents, our team translated and adapted into a preventive format the *Unified Protocol for Transdiagnostic Treatment of Emotional Disorders in Adolescents* (UP-A) (Ehrenreich-May et al., 2018). The UP-A, considered the most consolidated T-CBT protocol for the treatment of anxiety and depression in adolescents (García-Escalera, Chorot, Valiente, Reales, & Sandín, 2016), consists of eight core modules ([M], see Table 1) and a parent module (with a recommended duration of 1–3 sessions).

The first adaptation made to the UP-A, which had the objective of shortening the duration of the program, consisted of selecting the most important contents and worksheets for each module. These contents were grouped into nine sessions, and one session was dedicated to each UP-A module with the exception of M5, which was targeted in two sessions (Table 1). In addition, we decided not to use the parent module. Second, several UP-A handouts were adapted to a universal prevention format. For example, on the "Weekly Activity Planner" worksheet (M3), adolescents were asked to daily plan not only enjoyable activities, but also study time. Some adaptations were also made to adapt the UP-A contents to the Spanish cultural context. For example, certain activities on the "List of Commonly Enjoyed Activities" (M3) were replaced by more common ones in Spain (e.g., "yard work" was changed to "going for a walk").

Intervention

The preventive program was administered by two psychologists of our research team. The school counselor was involved in the project leading the contact with the families (dissemination of the study, gathering informed consents, etc.). The intervention was administered during school hours to groups of around 30 students each (specifically, during classes called "Tutorías") and over nine 55 minutes long weekly sessions. The contents of each session, its correspondence to the UP-A modules, and the psychological techniques used can be found in Table 1. The teachers of the CG were asked to teach their classes in the usual way and to not include training of emotion regulation skills.

Due to the large number of students per group, a traditional teaching methodology was used. Traditional lessons were taught using Power Point slides, and individual worksheets were assigned during sessions and as homework.

Statistical analyses

All statistical analyses were done with the SPSSS v.24 software program with the exception of those related to the psychometric

Table 1
Content of each session [S] of the preventive program (including the psychological technique used) and the corresponding UP-A module [M]

[S1] Introduce confidentiality and group rules; obtain 3 top problems, severity ratings, and a goal for each problem (Motivational techniques)	[M1] Building and Keeping Motivation
[S2] Psychoeducation concerning emotions and emotional behaviors (Psychoeducation)	[M2] Getting to Know Your Emotions and Behaviors
[S3] Psychoeducation regarding acting opposite to how our emotions tell us to act; reflect on current use of free time and come up with a list of enjoyed activities (Behavioral activation)	[M3] Introduction to Emotion-Focused Behavioral Experiments
[S4] Psychoeducation regarding body sensations in relation to intense emotions; practice body scanning and conduct sensational exposures (Exposure to physical sensations)	[M4] Awareness of Physical Sensations
[S5] Psychoeducation regarding "thinking traps" and detective thinking skills; re-rate top problems (Cognitive reappraisal)	[M5] Being Flexible in Your Thinking
[S6] Review Session 5 contents; practice problem solving skills (Problem solving)	[M5] Being Flexible in Your Thinking
[S7] Introduce present-moment awareness and nonjudgmental awareness skills; practice focus on breathing (Mindfulness)	[M6] Awareness of Emotional Experiences
[S8] Psychoeducation concerning cycle of avoidance and exposure to situations that bring up uncomfortable emotions; create an emotional behavior form to identify relevant exposures (Exposure)	[M7] Situational Emotion Exposures
[S9] Review exposure homework and learnings of the program; re-rate top problems (Relapse prevention)	[M8] Keeping it Going — Maintaining Your Gains

properties of the questionnaires; for those, the EQS 6.3 program was used. Cronbach's (coefficient α) and McDonald's (composite consistency coefficient ω) internal consistency coefficients were calculated. To examine the composite reliability coefficient corresponding to the scales RCADS-30 and EBAE-10, the Bentler's rho coefficient (ρ) was calculated (Bentler, 2006). Taking into account the ordinal nature of the study variables, these coefficients were calculated considering the variables as categorical and using polychoric correlations. After verifying that all dependent variables (DVs) fulfilled the assumptions of normality and homogeneity, the linear mixed models (LMMs) procedure was used to analyze whether in T1 there were differences in the DVs between the EG and the CG. Subsequently, the LMMs procedure was used to adjust each DV to a three-level random intercept hierarchical model (assessment time, student, and class). Effect sizes were calculated using the following formula: $d = B/(SE\sqrt{n-1})$ (Hedges, 2007). LMMs treat missing data according to the maximum likelihood estimation, which allows an analysis of the total sample (151 adolescents).

On the other hand, it was analyzed whether baseline anxiety and depression symptoms (evaluated in T1 with the RCADS questionnaire) and gender acted as predictors of the program's effectiveness. For each of these potential predictors, LMMs were used in order to examine the following triple interaction: experimental condition (GE, GC) × assessment time (T1, T2, T3) × predictor. Separate LMMs were run on each DV including a sample of 148 adolescents, which is all participants who completed the sociodemographic questionnaire and the RCADS questionnaire in T1.

Results

Effects of the program on educational and wellbeing variables

At T1, LMMs did not show significant differences between the EG and the CG in any DV except for variable SWLS-C [B = −1.30, SE = .54, p = .018], in which the EG had a significantly higher score than the CG (d = .20). The descriptive statistics of all DVs are shown on Table 2 along with the Intracluster Correlation Coefficients (ICCs), which had values between .01 and .24.

The LMMs results showed a significant main effect of time on the following variables: *SWLS-C*, B = .43 (SE = .21), p = .047, d = 0.17; *SES*, B = .72 (SE = .34), p = .038, d = 0.17; and *EBAE self-perceived school performance*, B = −.39 (SE = .18), p = .029, d = −0.18. Specifically, the scores on *life satisfaction* and *self-esteem* increased in the EG and the

CG over time, while the scores on *self-perceived school performance* decreased in the EG and the CG over time.

Additionally, there were several significant or marginally significant Time × Group interactions on several DVs: *EBAE problems of adjustment in school*, B = −.89 (SE = .37), p = .018, d = −0.20; *EBAE academic expectations*, B = .40 (SE = .21), p = .057, d = 0.16; and *SWLS-C*, B = −.56 (SE = .28), p = .046, d = −0.16. Post hoc Bonferroni-adjusted pairwise comparisons did not reveal significant results for *EBAE problems of adjustment at school*, but it did for *EBAE academic expectations*. Specifically, the *academic expectations* of the CG significantly decreased between T1 and T2 (p = .001) and between T1 and T3 (p < .001), whereas they remained without significant changes in the EG. Lastly, *satisfaction with life* scores significantly marginally increased in the CG between T2 and T3 (p = .076), while there were no changes in the GE over time.

There were no significant Time x Group interactions in the remaining DVs: *EBAE-10*, B = −.57 (SE = .52), p = .282, d = −0.09; *EBAE self-perceived school performance*, B = .02 (SE = .23), p = .944, d = 7.09; *IG*, B = .21 (SE = .27), p = .451, d = 0.06; *KIDSCREEN-10*, B = .21 (SE = .57), p = .713, d = 0.03; *SES*, B = −.29 (SE = .44), p = .520, d = 0.05; and *SDQ peer problems*, B = .02 (SE = .12), p = .863, d = 0.01.

Analyses of potential predictors of efficacy

Linear mixed models did not show any significant Group (EG, CG) × Time (T1, T2, T3) × Predictor (gender; RCADS scores in T1) interaction regarding any of the DVs of the present study (n = 148). It is worth mentioning that the analyses related to the RCADS predictor in T1 were first carried out with the entire sample. The second analyses left out the 16 adolescents (11 in the GE) who in T2 and/or T3 who reported attending therapy outside the school in the past three months.

Discussion

The main objective of this study was to examine the effects of a universal anxiety and depression prevention program on a range of education and well-being variables. The results show that *satisfaction with life* is balanced in the EG and the CG over time; specifically, the scores in this variable increase in the CG, which started with lower basal levels while they remained constant in the EG. Furthermore, there is a significant increase in *self-esteem* scores for the entire sample, with no differences between the EG and the CG. This result is consistent with the fact that anxiety and depression symptoms also significantly decreased for the entire sample

Table 2
Descriptive statistics of educational and wellbeing variables

		EG (n = 88)[a]		CG (n = 60)[b]		ICC
		Mean	SD	Mean	SD	
School Adjustment Brief	T1	45.23	8.18	45.82	6.78	.11
Scale (EBAE)	T2	43.59	8.19	44.05	6.75	.11
	T3	42.93	8.44	44.83	7.08	.05
Problems of adjustment	T1	25.38	4.41	25.10	4.45	.08
at school	T2	25.00	3.96	25.33	3.94	.04
	T3	24.61	4.56	26.02	3.99	.05
Self-perceived school	T1	10.82	3.46	10.98	2.64	.06
performance	T2	10.08	3.55	10.04	3.40	.04
	T3	9.96	3.50	10.21	3.40	.04
Academic expectations	T1	9.03	3.43	9.73	2.70	.24
	T2	8.51	3.82	8.68	3.29	.21
	T3	8.36	3.99	8.60	3.42	.19
General Indiscipline	T1	6.10	3.93	5.82	3.22	.06
Scale (IG)	T2	6.96	5.15	5.98	2.93	.07
	T3	6.85	4.66	5.83	3.19	.09
Satisfaction with Life	T1	13.47	3.29	12.17	3.25	.05
Scale for Children	T2	13.52	3.90	12.07	3.60	.05
(SWLS-C)	T3	13.08	3.48	13.04	3.68	.03
KIDSCREEN-10	T1	34.94	6.85	34.88	7.72	.03
	T2	34.46	7.02	33.11	8.35	.04
	T3	34.11	7.04	33.98	7.27	.02
Self-Esteem Scale (SES)	T1	28.66	5.63	27.44	5.61	.02
	T2	28.91	5.99	27.53	6.89	.01
	T3	29.58	5.59	28.77	6.25	.02
SDQ peer problems	T1	2.05	1.79	2.43	1.93	.03
	T2	2.11	1.97	2.63	1.75	.06
	T3	2.21	1.85	2.54	1.89	.04

Note. ICC: Intracluster Correlation Coefficient, CG: Control Group, EG: Experimental Group, SDQ: Strengths and Difficulties Questionnaire.

[a] n: T2 = 78; T3 = 72.

[b] n: T2 = 57; T3 = 48.

(García-Escalera et al., 2020), a reduction that may be due to three factors: (1) the test–retest effect (scores tend to decrease between two measurements); (2) contamination of program contents that may have taken place between the EG and the CG (e.g., through handouts); or (3) some type of socio-emotional training took place in the school, unknown to researchers.

Regarding school adjustment, there is a decrease in *self-perceived school performance* for the entire sample. At the same time, *self-reported academic expectations* significantly diminished in the CG while they remain unchanged in the EG. Therefore, it seems that the decrease in *self-perceived school performance* is accompanied by a reduction in *academic expectations* in the CG but not in the EG, perhaps because participants in the EG learn psychological techniques (e.g., cognitive restructuring strategies), which contributes to a reduction in *self-perceived school performance* but not in *academic expectations*. This result can be considered a preventive effect (preventing undesirable variables from increasing over time) rather than a treatment effect (existence of positive changes after the intervention) (Horowitz & Garber, 2006).

The authors of this study are not aware of similar studies that evaluate the effect of school adjustment. In fact, this variable is not mentioned in the review by Becker et al. (2014) on educational variables targeted by child and youth mental health programs. However, correlational studies have found significant associations between emotional regulation strategies and *self-perceived school performance*, although self-esteem is the variable that seems to stand out as the main predictor of *self-perceived school performance* in secondary education (Fernández-Lasarte, Ramos-Díaz, Goñi Palacios, & Rodríguez-Fernández, 2019). Therefore, it would be appropriate for school mental health programs to directly target this variable.

This study did not find any effects of the intervention on the remaining DVs evaluated. This may be due to the fact that the improvement in the social-emotional variables is what allows an improvement in the educational variables (Suldo et al., 2014); and in this project, there is no evidence of a reduction in the anxiety and depression symptoms (García-Escalera et al., 2020). Other possible explanations include the short follow-up period (three months) and the loss of statistical power, which made the detection of preventive effects difficult. Specifically, the statistical power calculations carried out before the study began predicted that the dropout rate at T3 would not exceed 10% (García-Escalera et al., 2017); nevertheless, it was 19.8%. The presence of a high percentage of immigrant students in the study (61.2%) may help explain this dropout rate since these students tend to have higher truancy rates and lower academic scores (Grau-Rubio & Fernández-Hawrylak, 2016). This factor could further explain the decrease in *self-perceived school performance* in the sample. Future studies need larger samples to examine the possible differential impact of the program on immigrant students.

Regarding the secondary objective of this study, neither gender nor baseline anxiety and depression scores acted as predictors of efficacy, although it is important to bear in mind the study's loss of statistical power. The result regarding gender is consistent with the meta-analysis of Ahlen et al. (2015), who found no moderating effects of this variable on anxiety and depression symptoms—although it did not evaluate education or well-being variables. In relation to baseline anxiety and depression levels, the result is not consistent with similar studies (e.g., Gillham et al., 2012), which found greater reductions in the DVs for the most symptomatic participants, although, again, we are not aware of any investigation that studies this in relation to educational and well-being variables.

The results of the present study warrant further evaluation of the effects of the UP-A protocol adapted as a universal prevention intervention. Future research may envisage that teachers themselves be the ones to administer the program with the aim of reducing costs, increasing the potential for dissemination of the intervention, and increasing the exposure of students to the program's contents. Teachers could, for example, dedicate a few minutes every day to the practice of mindfulness, which seems to be especially related to two important variables in the educational context: cognitive performance and stress resilience (Zenner et al., 2014). Finally, the implementation in schools of a step-by-step approach to mental health could be studied. This could entail school counselors to support those adolescents who do not respond adequately to universal prevention programs. To do this, they could rely on new technologies (e.g., the AMTE program by Sandín et al., 2019).

In addition to the limitations associated with the loss of statistical power and the limited follow-up period previously discussed, this study presents three other weaknesses: (1) self-reported questionnaires were used instead of obtaining information from multiple sources (teachers, family members); (2) the sample is not representative of the adolescent population living in Spain, which makes it difficult to generalize the results; and (3) the reliability of the peer problems subscale of the SDQ questionnaire is below the values considered acceptable.

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