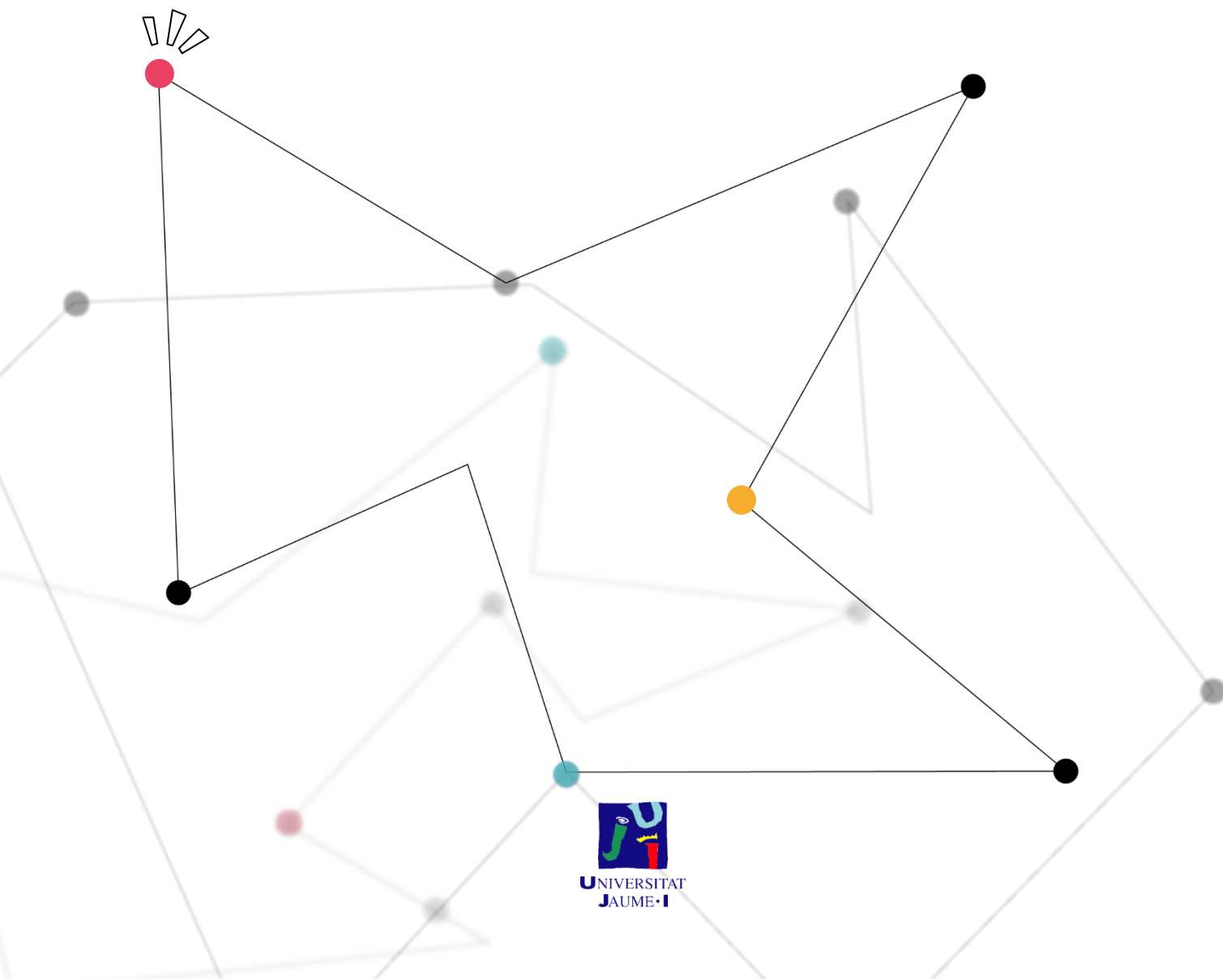


INFLUENCIA DE LOS **SUCESOS VITALES ESTRESANTES** Y LA **PERSONALIDAD** EN EL DESARROLLO DE PROBLEMAS INTERIORIZADOS Y EXTERIORIZADOS DURANTE LA ADOLESCENCIA

Andrea Cuevas Carda

Supervisores: Manuel Ignacio Ibáñez Ribes y Laura Mezquita Guillamón

2022.12





Programa de Doctorado en Psicología

Escuela de Doctorado de la Universitat Jaume I

Influencia de los sucesos vitales estresantes y la personalidad en el desarrollo de problemas interiorizados y exteriorizados durante la adolescencia.

Memoria presentada por Andrea Cuevas Carda para optar al grado de doctor/a por la Universitat Jaume I

Andrea Cuevas Carda

Manuel I. Ibáñez Ribes

Laura Mezquita Guillamón

Castelló de la Plana, diciembre de 2022

LICENCIA

Licencia CREATIVE COMMONS
Reconocimiento - Compartir igual (BY-SA).



FINANCIACIÓN

La presente Tesis Doctoral ha sido posible gracias al contrato predoctoral FPU del Ministerio de Universidades (FPU16/02395). La investigación se ha podido realizar gracias a los proyectos otorgados por del Ministerio de Ciencia, Innovación y Universidades (RTI2018-099800-B-I00), la Generalitat Valenciana (GV/2016/158 y AICO/2019/197) y la Universitat Jaume I (UJI-B2017-74 y UJI-A2019-08).

”

La vida és una successió d'esdeveniments inevitables i d'esdeveniments evitables que pel que siga no s'han evitat o que fins i tot s'han buscat, amb tot el que això comporta.

- Maria Climent



Agradecimientos

A los centros educativos IES Caminàs e IES Bovalar por participar en el proyecto de investigación y permitir la recogida de datos en sus centros.

A la Universitat Jaume I y sus docentes por estos años de formación y acompañamiento.

A la Unitat de Suport Educatiu de la UJI y especialmente a Inma Usó, por acercarme a la investigación desde el principio e iniciarme en este camino.

A Jorge Moya, gracias por acogernos en Lleida durante las estancias de investigación y por hacernos tan fácil aprender.

Agradezco también a todo el equipo IDAP, por estos años de formación y acompañamiento y por el tiempo y esfuerzo empleado en esta tesis. A Generós por depositar su confianza en mí para iniciar este proyecto y a mis compañeros de laboratorio por acompañarme en este proceso.

A Laura Mezquita, mi primera tutora de investigación durante la carrera, TFG, TFM y ahora también, codirectora de tesis, gracias por la dedicación y rigurosidad en esta tesis. A Nacho Ibáñez, director de tesis, por sus aportes y correcciones, y por hacer posible que este proyecto saliera adelante.

A nivel personal, me gustaría agradecer a mis padres, Rosana y Vicent, que siempre y en todo lo que hago son un apoyo fundamental para mí, mi espacio seguro. A mi hermano, Vicent, que no necesita hablar para enseñarme. Y por ser luz. A mi tía M^o Carmen, por todo,

pero sobre todo por recordarme constantemente que el éxito es más simple de lo que parece y que mire dentro de mí para buscarlo.

A mis amigas y amigos, que siempre me escuchan, me calman, me acompañan y me ayudan. Que siempre confían en mí incluso cuando yo no confío. Y por apoyarme en este camino.



[Índice]

RESUMEN	14
ABSTRACT.....	16
MARCO TEÓRICO	18
Psicopatología.....	18
Adolescencia y salud mental	20
Estructura de la psicopatología	22
Evaluación de la psicopatología.....	24
Personalidad	27
Modelo de cinco factores.....	27
Personalidad en la adolescencia.....	30
Sucesos vitales estresantes (SLE)	36
Tipologías de SLE.....	37
SLE y psicopatología	39
MARCO EXPERIMENTAL.....	52
Objetivos generales e hipótesis	52
Estudio 1	56
Estudio 2	94
DISCUSIÓN.....	122
REFERENCIAS.....	132



Lista de tablas y figuras

Tabla 1. Factores y facetas del NEO-PI-R.....	29
Tabla 2. Estructura factorial con rotación Varimax y coeficientes de congruencia de la versión piloto (N=2733) y de la versión final (N=983) del JS NEO	34
Tabla 3. Coeficientes de congruencia finales del análisis factorial del JSNEO	35
Tabla 4. Una revisión de los estudios previos que exploran la asociación entre el Modelo de Cinco Factores (FFM) y SLE	43
Tabla 5. Descriptives of age and the main outcomes of the study.	74
Tabla 6. Test-retest reliability of the occurrence and impact of stressful life events over one month.....	76
Tabla 7. Correlations between stressful life events measures from the LEIA with the EAV, symptom and life satisfaction measures.....	80
Tabla 8. Regression analyses with types of life events as independent variables and psychopathologic symptoms and life satisfaction as dependent variables.....	83
Tabla 9. Descriptive Analysis of the Total Sample and Differentiating by Sex.....	110
Tabla 10. Correlational Analysis.....	111
Tabla 11. Indirect and Total Effects	112
Tabla 12. Regression analysis.....	114
Figura 1. Sintomatología y trastornos asociados a los factores de interiorización y exteriorización.....	24
Figure 2. Hypothesized Model between Personality, SLE and Internalizing and Externalizing Psychopathology	105
Figure 3. Final Path Analysis Model.....	112



[Resumen]

Los trastornos mentales son una de las causas más importantes a nivel mundial de años de discapacidad a lo largo de la vida (YLD), y de pérdida de años de vida potenciales. Además, durante los últimos años, se ha observado un incremento significativo en la prevalencia de los trastornos mentales durante la adolescencia. Por ello, conocer cuáles son los factores de riesgo y protección más importantes de la psicopatología más común (i.e., problemas interiorizados como la ansiedad o depresión, y problemas exteriorizados como los problemas de conducta o adicciones) en los adolescentes es fundamental para el desarrollo de estrategias de prevención y tratamiento personalizadas más eficaces en esta población. En este sentido, la personalidad y los sucesos vitales estresantes se han asociado tanto con los problemas interiorizados como con los problemas exteriorizados durante la adolescencia. Sin embargo, en la literatura previa se observa: 1) una falta de instrumentos de evaluación que exploren de forma sistemática tanto la ocurrencia de distintos tipos de eventos vitales (p.e., dependientes vs. independientes, personales vs. interpersonales), como la afectación que los eventos estresantes tiene para los adolescentes; 2) estudios que exploren la interrelación compleja (efecto directo, moderación y mediación) entre la personalidad y los eventos vitales estresantes a la hora de predecir la psicopatología interiorizada y exteriorizada en la adolescencia.

Por ello, los objetivos de la presente tesis doctoral fueron: 1) Desarrollar una lista de verificación de eventos vitales estresantes (SLE) en adolescentes españoles, el Life Events

Inventory for Adolescent (LEIA), y proveer evidencia sobre la validez y fiabilidad de sus puntuaciones (Estudio 1); 2) Explorar los efectos de mediación y moderación de los eventos vitales estresantes dependientes e independientes en la relación de la personalidad evaluada mediante el Modelo de Personalidad de los Cinco Factores y los problemas interiorizados y exteriorizados (Estudio 2).

Los resultados del Estudio 1 mostraron índices de fiabilidad del LEIA adecuados, así como correlaciones elevadas entre el LEIA y otro cuestionario de eventos vitales, el EAV. La ocurrencia de SLE proporcionó información más relevante que la valoración subjetiva de los mismos. Los SLE no interpersonales dependientes graves fueron los mejores predictores de los problemas exteriorizados, mientras que los SLE no interpersonales independientes graves fueron los mejores predictores de síntomas interiorizados y baja satisfacción con la vida.

En el Estudio 2 los resultados de los Análisis de Ecuaciones Estructurales mostraron que los SLE dependientes, la baja amabilidad, la baja responsabilidad, el neuroticismo y la extraversión se asociaron con los problemas exteriorizados; mientras que los SLE dependientes e independientes, el neuroticismo y la baja extraversión se relacionaron con la sintomatología interiorizada. Los SLE dependientes actuaron como mediadores parciales entre la personalidad y la psicopatología. En contra de lo esperado, los resultados de los análisis de regresión lineal no mostraron efectos de interacción robustos entre la personalidad y distintos tipos de eventos vitales en los factores de interiorización y exteriorización.

Con todo ello, los resultados de la presente tesis doctoral proveen de diferentes fuentes de fiabilidad y validez que avalan que LEIA es una lista de verificación adecuada para la evaluación de SLE en adolescentes españoles. Además, se provee evidencia de cómo se interrelacionan la personalidad y las distintas tipologías de SLE (dependientes o independientes) a la hora de dar cuenta de los problemas interiorizados y exteriorizados.



[Abstract]

Mental disorders are one of the most important causes of Years Lived with Disability (YLD) worldwide, as well as loss of potential years of life. Also, in the latest years, a significant increase has been reported in the prevalence of mental disorders during adolescence. Thus, learning what the most important risk and protection factors are for the most common forms of psychopathology (i.e., internalizing problems such as anxiety and depression, and externalizing problems such as behavioral problems or addictions) in adolescents is essential for the development of more effective and personalized prevention and intervention strategies in this population group. In this sense, personality and stressful life events have been linked to internalizing, as well as externalizing problems in adolescents. Nonetheless, in the existing literature we can observe: 1) a lack of assessment instruments that systematically explore both the occurrence of different types of life events (e.g., dependent vs. independent, personal vs. interpersonal), as well as the effect that stressful life events have for adolescents; 2) studies that explore the complex interplay (direct, moderation, and mediation effects) between personality and stressful life events to predict internalizing and externalizing psychopathology in adolescence.

Thus the aims of the present doctoral dissertation were: 1) developing a verification list of stressful life events (SLE) in Spanish adolescents, the Life Events Inventory for Adolescents (LEIA) and providing evidence on the validity and reliability of its scores (Study 1); 2) Exploring the mediation and moderation effects of the dependent and independent stressful life events in

the relationship between personality, assessed within the Five Factor Model of personality framework, and internalizing and externalizing problems (Study 2).

The results of study 1 show adequate reliability indices of the LEIA, as well as high correlations between the LEIA and another life events questionnaire, the EAV. The occurrence of SLE provided more relevant information than subjective reports of them. The non-interpersonal, severe and dependent SLE were the best predictors of externalizing problems, whereas the non-interpersonal, severe independent SLE were the best predictors of internalizing symptoms and low life satisfaction.

In Study 2, the results of the Structural Equation Modeling analyses showed that the dependent SLE, low agreeableness, low conscientiousness, high neuroticism and high extraversion were associated with externalizing problems; whereas the dependent and independent SLE, high neuroticism and low extraversion were linked to internalizing symptoms. The dependent SLE acted as partial mediators between personality and psychopathology. Counter to our expectations, the linear regression analyses' results did not show robust interaction effects between personality and different types of life events predicting internalizing and externalizing factors.

All in all, the results of the present doctoral dissertation provide several different sources of reliability and validity that support the LEIA instrument as an adequate verification list for the assessment of SLE in Spanish adolescents. Furthermore, evidence is provided on the interplay between personality and different types of SLE (dependent or independent), explaining internalizing and externalizing problems.



[Marco teórico]

1. Psicopatología

Los trastornos mentales son una de las causas más importantes a nivel mundial de años de discapacidad a lo largo de la vida (YLD), y de pérdida de años de vida potenciales (DALYs) (Global Burden of Disease [GBD] 2019 Mental Disorders Collaborators, 2022; Degenhardt y cols., 2013; Whiteford y cols., 2013). Por ello, los trastornos mentales son un aspecto relevante a tener en cuenta debido a su impacto social, económico y a nivel de salud (Layard, 2012; Trautmann y cols., 2016). Parte de este impacto es claramente visible y está asociado a aspectos como el diagnóstico y tratamiento de dichos problemas de salud, no obstante, existen numerosos costes indirectos derivados de los mismos, como puede ser el aumento de la mortalidad y discapacidad, así como la disminución de la calidad de vida de los pacientes, o bien las pérdidas de ingresos o producción debido a las bajas laborales, la jubilación anticipada o la incapacidad para desarrollar una actividad laboral remunerada (Trautmann y cols., 2016).

En lo relativo a la prevalencia de los trastornos mentales, la evidencia empírica sugiere que las enfermedades mentales deben considerarse un problema importante de salud pública porque alrededor del 50% de la población en países de ingresos medios y altos presentará un trastorno mental o más durante su vida (Moitra y cols., 2022; Trautmann y cols., 2016, Vigo y cols., 2016; Vos y cols., 2019). Otros autores también encuentran efectos de género consistentes, indicando que las mujeres muestran tasas más altas de trastornos del estado de

ánimo, depresión ansiedad y una mayor predisposición a problemas interiorizados (Bacigalupe y cols., 2020; Carragher y cols., 2016; Hengartner, 2017; Moitra y cols., 2022; Organización Mundial de la Salud [OMS], 2019; Wichstrøm, 1999), mientras que los hombres muestran tasas más altas de trastornos por uso de sustancias, problemas de control de impulsos y trastornos exteriorizados (Bacigalupe y cols., 2020; Carragher y cols., 2016; Hartung y Lefler, 2019; OMS 2019; Steel y cols., 2014).

En una revisión de prevalencia de los trastornos mentales más comunes (trastornos afectivos, de ansiedad, control de impulsos y abuso de sustancias) en adultos en España se encontró que dicha prevalencia es alta y afecta a principalmente a personas en edad laboral; la morbilidad psíquica global en España fue del 22,2% en 2006, el 22,1% en 2011 y el 19,1% en 2017 (Henares y cols., 2020). El 49.2% de los pacientes que acuden a las consultas de Atención Primaria cumplen los criterios diagnósticos para al menos un probable trastorno de ansiedad, depresión o somatización. Además, de acuerdo con la evidencia del ámbito internacional, en el contexto español los estudios confirman la mayor prevalencia de problemas de salud mental en las mujeres, siendo del 23,4% en estas y del 15,6% en los hombres (Arias de la Torre y cols., 2020; Bacigalupe y cols., 2020). Los trastornos mentales comunes presentan un gran impacto sobre las personas y sobre la sociedad, tanto si se evalúan los costes, cuantificando en unidades monetarias, como si se mide la carga producida por los mismos, bien a través de la calidad de vida relacionada con la salud (AVAC) o bien se evalúa dicho impacto por la discapacidad que producen estos trastornos (AVAD) (Ruiz-Rodríguez y cols., 2017).

En el caso de los jóvenes, los trastornos psicológicos son una de las principales causas de discapacidad para las personas de entre 10 y 19 años (OMS, 2020). Además, sufrir problemas de salud mental tiene efectos importantes en el desarrollo de niños y adolescentes y tiende a estar asociado con varios otros problemas sociales y de salud (OMS, 2020). Estos pueden incluir dificultades en el funcionamiento social y académico, como el abandono

temprano de la escuela (Melkevik y cols., 2016; Seiffge-Krenke, 2017), la mala calidad de vida en general (Atilola y cols., 2018) y el desarrollo de trastornos mentales en la edad adulta (Navarro y García-Villamizar, 2014). En términos de años de vida ajustados por discapacidad (AVAD), los trastornos mentales y por uso de sustancias emergen a nivel mundial como la principal causa de discapacidad en los jóvenes (Erskine y cols., 2015). Esta es una medida que expresa el número de años perdidos debido a problemas de salud, discapacidad o muerte prematura. Recientemente, Erskine y cols. (2015) encontraron que estos diagnósticos ocupaban el sexto lugar entre 55,5 millones de AVAD (5,7%), atribuibles principalmente a trastornos depresivos, de ansiedad, de conducta y por consumo de sustancias (Catalá-López y cols., 2013; Silva y cols., 2020). Por ello, conocer cuáles son los factores de riesgo y protección más importantes de los trastornos mentales más comunes es fundamental para el desarrollo de estrategias de prevención y tratamiento personalizadas más eficaces.

1.1. Adolescencia y salud mental

El término adolescencia no aparece hasta el siglo XV siendo Rousseau quien se refirió a este período como “antesala del estado adulto”. Hall en 1904 considera este momento del desarrollo como un periodo tormentoso y estresante (“storm and stress”), una etapa crítica y decisiva donde afloran los conflictos entre dos estados psicológicos distintos: el salvajismo de la infancia y mundo civilizado de los adultos (véase Arnett, 1999). Sin embargo, esta visión negativa ha derivado más recientemente en una conceptualización más compleja, considerando no solo sus aspectos de vulnerabilidad, sino también los aspectos de crecimiento y flexibilidad (Arnett, 1999; Hollenstein y Loughheed, 2013). Por tanto, la adolescencia es un período caracterizado por importantes cambios biológicos, psicológicos y sociales, en la que se da una mayor sensibilidad a las experiencias sociales (Schriber y Guyer, 2016), pero también mejoras sustanciales en las capacidades físicas y cognitivas (Crone y Dahl, 2012).

Así, la adolescencia constituye un período clave de transición de la niñez a la edad adulta. Los adolescentes tienen que adaptarse a los múltiples cambios biológicos y físicos que implica la maduración puberal y se enfrentan a nuevos desafíos sociales dentro de la familia, entre sus compañeros y en la escuela (Crone y Dahl, 2012; Hollenstein y Loughheed, 2013). Estos cambios pueden conducir a transformaciones cognitivas, trastornos del estado de ánimo y cambios de personalidad en la autorregulación, desinhibición y conflictividad (Denissen y cols., 2013; Ibáñez y cols., 2016).

De hecho, la adolescencia ha sido conceptualizada como un período de vulnerabilidad durante el cual algunos trastornos mentales presentan su fase prodrómica (Casey y cols., 2014; Wittchen y cols., 2011). En consecuencia, la prevalencia de trastornos mentales comunes durante la adolescencia tiende a ser alta, con estimaciones en el rango del 25% al 45% (Merikangas y cols., 2011; Patton y cols., 2014; Wittchen y cols., 2011). Específicamente en niños y adolescentes, los trastornos relacionados con la ansiedad parecen ser los más frecuentes (Merikangas y cols., 2009; OMS, 2012), al igual que en la población adulta. Las tasas de prevalencia mundial para niños y adolescentes rondan el 6% para los trastornos de ansiedad y el 3% para los síntomas depresivos (Polanczyk, y cols., 2015), mientras que los trastornos del comportamiento y los problemas de hiperactividad-atención tienen una prevalencia entre el 3% y el 6% (Merikangas y cols., 2015; Polanczyk y cols., 2015). En un metaanálisis que incluyó 41 estudios y se llevó a cabo en 27 países de todo el mundo, los autores concluyeron que la prevalencia mundial de trastornos mentales en la infancia y la adolescencia era del 13% (con heterogeneidad significativa para todas las estimaciones combinadas), lo que implica que los trastornos mentales afectan a un número significativo de jóvenes en todo el mundo (Polanczyk y cols., 2015). No obstante, los estudios sobre el desarrollo de la psicopatología en etapas tempranas de la vida también parecen indicar que la psicopatología en la infancia suele aparecer como una maraña inespecífica de

problemas emocionales y conductuales difusos que, con el tiempo, tienden a diferenciarse en síntomas y trastornos más específicos (Forbes y cols., 2019).

Esta vulnerabilidad se puede atribuir, en parte, a los cambios madurativos que se producen en los circuitos cerebrales responsables de la respuesta al estrés y la adversidad (Schriber y Guyer, 2016). Aunque muchos de estos síntomas y trastornos se limitan a la adolescencia, en algunos casos padecer un trastorno mental en la adolescencia aumenta el riesgo de padecer trastornos mentales en la edad adulta (Clark y cols. 2007; Copeland y cols., 2009; Patton y cols., 2014).

1.2. Estructura de la psicopatología

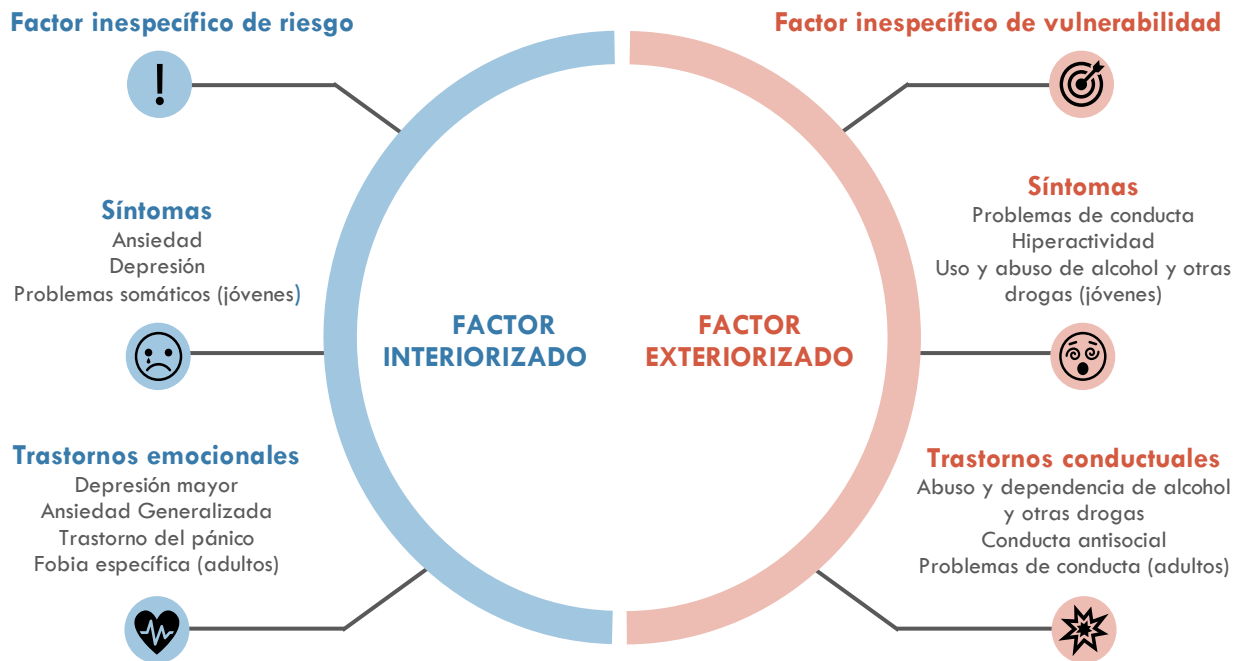
Uno de los autores pioneros en el estudio sobre la estructura de la psicopatología en niños ha sido Thomas M. Achenbach. A partir de la investigación factorial sobre la asociación de síntomas psicopatológicos en niños y adolescentes en la década de los 60, Achenbach encontró dos factores de psicopatología; el primero llamado "exteriorización" comprendía elementos que representaban un conflicto con el entorno (es decir, síntomas antisociales y de conducta), mientras que el segundo factor llamado "interiorización" representa problemas dentro del yo (es decir, síntomas del estado de ánimo y ansiedad) (Achenbach, 1966, 1978; Achenbach y Edelbrock, 1978, 1984). De forma similar a los hallazgos con muestras de niños, Krueger (1999) encontró una estructura similar de dos factores correlacionados de trastornos internalizados y exteriorizados a partir de pacientes diagnosticados a partir de criterios diagnósticos del DSM. A partir de estas propuestas pioneras, en las últimas décadas multitud estudios han replicado esta estructura de dos factores (interiorizado y exteriorizado) subyacentes de vulnerabilidad a distintos trastornos psicopatológicos en adultos (p.ej. Carragher y cols., 2015; Eaton y cols., 2010; Kramer y cols., 2008; Krueger y Markon, 2006; Krueger, 1999; Mezquita y cols., 2015) y adolescentes (p.e. Achenbach, 2011; Carragher, y cols., 2016; Cosgrove y cols., 2011; Doyle y cols., 2016; Etkin y cols., 2020; Forbush y cols.,

2010; Lahey y cols., 2004; Sánchez-Sánchez y cols., 2016; Verona y cols., 2011; Watts y cols., 2019). En estos últimos se muestran factores de vulnerabilidad relacionados, aunque con variaciones propias de las escalas de síntomas utilizadas. En algunos estudios se apoya un modelo de factores que comprende los subfactores interiorizados de angustia (ansiedad generalizada y depresión mayor) y miedos (agorafobia, trastorno obsesivo compulsivo, pánico, ansiedad por separación, ansiedad social y fobia específica) y un factor de exteriorización (trastorno de conducta, hiperactividad, impulsividad, inatención y trastorno negativista desafiante) (Watts y cols., 2019). Otros estudios incluyen depresión y ansiedad en el mismo factor de interiorización, un factor de exteriorización que comprende el trastorno de conducta, el déficit de atención y el trastorno negativista desafiante, y un factor de uso de sustancias (Verona y cols., 2011).

En resumen, la investigación en todos los grupos de edad señala la existencia de una alta comorbilidad en muchos trastornos mentales comunes. Por ejemplo, la ansiedad y la depresión suelen aparecer conjuntamente (Assmann y cols., 2018; Cummings y cols., 2014; Gómez y cols., 2019; O'Neil y cols., 2010; Ranøyen y cols., 2018), así como también lo hacen los trastornos de conducta y los trastornos negativistas desafiantes, con más del 60% de comorbilidad (Lahey y cols., 1992; Maughan, y cols., 2004; Rowe y cols., 2010). Además, el trastorno de conducta se asocia y suele preceder a trastornos relacionados con el consumo de drogas y trastornos del control de impulsos (Nock y cols., 2006). Estos datos sugieren que los trastornos clínicos más comunes co-ocurren con más frecuencia de lo que se puede esperar por casualidad (Krueger y Markon, 2006) y esto parece sugerir que esta comorbilidad podría deberse a la existencia de una estructura subyacente común (Krueger & Markon, 2006; South, y cols., 2010). Además, incluso cuando se han encontrado diferentes modelos de la estructura de la psicopatología, los factores que emergen sistemáticamente en todos los estudios empíricos son los factores de trastornos y síntomas interiorizados y exteriorizados (Eaton y cols., 2013; Hicks, y cols., 2004; Krueger y cols., 2007). Esta estructura parece

permanecer estable en el tiempo (Hatoum y cols., 2018), y persiste en diferentes grupos de edad y género (Mezquita et al., 2015).

Figura 1.
Sintomatología y trastornos asociados a los factores de interiorización y exteriorización.



1.3. Evaluación psicopatología

Aunque el Manual Diagnóstico y Estadístico de Trastornos Mentales (DSM-5; APA, 2013) sigue siendo el sistema de clasificación estándar para evaluar, estudiar y conceptualizar los trastornos psicológicos, no está exento de críticas por no considerar los últimos avances en neurociencia y ciencias del comportamiento (Cuthbert, 2014). No obstante, el DSM-5 reconoce la necesidad de un abordaje dimensional y propone algunas escalas para evaluar dimensionalmente los síntomas, y enfatiza su utilidad para mejorar el proceso de toma de decisiones clínicas, para comprender mejor la situación del paciente, y para poder realizar un análisis funcional de los trastornos mentales. Concretamente, incluye medidas dimensionales sobre depresión, ira, manía, ansiedad, síntomas somáticos, ideación suicida, psicosis,

alteraciones del sueño, memoria, pensamientos y comportamientos compulsivos, disociación, funcionamiento de la personalidad y uso de drogas. Sin embargo, esta es una aproximación inicial a abordaje dimensional de los trastornos en el DSM-5, por lo que estas escalas no cubren todo el rango de conductas, síntomas y grupos poblacionales (Echeburúa y cols., 2014).

1.3.1 Evaluación de la psicopatología interiorizada y exteriorizada en infancia y adolescencia

Existen numerosos test de amplio espectro que son frecuentemente utilizados en el ámbito internacional para la evaluación de problemas y trastornos psicológicos en la infancia y la adolescencia (Sánchez-Sánchez, 2016) como el Sistema de Evaluación de Achenbach (ASEBA; Achenbach y Rescorla, 2000, 2001), el CBRS (Comprehensive Behavior Rating Scales; Conners, 2008), el BASC-2 (Behavior Assessment System for Children; Reynolds y Kamphaus, 2004), el PIC-2 (Personality Inventory for Children; Lachar y Gruber, 2001), el PIY (Personality Inventory for Youth; Lachar y Gruber, 1995) o el SBS (Student Behavior Survey; Lachar y cols., 2000).

En España solo se dispone de adaptaciones de algunas de estas pruebas, entre las que destacan la del BASC o la del ASEBA. En el caso del BASC se trata una adaptación de la versión original de 1992 (Reynolds y Kamphaus, 2004) y ofrece unos baremos amplios a nivel nacional recogidos entre 2001 y 2003. En el caso del ASEBA, solo se disponen de baremos españoles para algunos de los instrumentos parciales que componen la prueba y, más en concreto, los correspondientes al CBCL (Child Behavior Checklist) deben considerarse provisionales, según los autores de la adaptación española (Unitat d'Epidemiologia i de Diagnòstic en Psicopatologia del Desenvolupament, 2013).

Teniendo en cuenta todos estos aspectos, Fernández-Pinto y cols. (2015) crearon el sistema de Evaluación para Niños y Adolescentes (SENA). Este instrumento permite la evaluación y detección de los principales problemas psicopatológicos junto con factores de vulnerabilidad y fortalezas psicológicas de los niños y adolescentes. El SENA está desarrollado íntegramente

en español y dispone de unos baremos amplios, representativos y actuales. Este instrumento permite la aplicación en un amplio rango de edad de aplicación que va desde los 3 a los 18 años, e incluye diferentes escalas y normas que varían según la edad y el informante (autoinforme o heteroinforme: padres y tutores).

Este instrumento permite evaluar (a) problemas interiorizados: depresión, ansiedad, ansiedad social, quejas somáticas, obsesión-compulsión y sintomatología postraumática; y (b) problemas exteriorizados: hiperactividad e impulsividad, problemas de atención, agresividad, conducta desafiante, problemas de control de la ira, conducta antisocial; (c) problemas específicos: retraso en el desarrollo, problemas de la conducta alimentaria, problemas de aprendizaje, esquizotipia, consumo de sustancias y comportamiento inusual; y finalmente, (d) problemas contextuales con la familia, en la escuela o con los compañeros.

El SENA también proporciona índices globales que permiten resumir las puntuaciones obtenidas en las distintas escalas y que muestran el funcionamiento del evaluado en varias áreas más generales. Además, permite detectar áreas de vulnerabilidad, así como la presencia de recursos psicológicos que actúan como factores protectores ante el desarrollo de psicopatología (Fernández-Pinto y cols., 2015).

Estudios empíricos recientes proveen de evidencias de fiabilidad de las puntuaciones del SENA, de la estructura del instrumento (Fernández-Pinto y cols., 2016), así como de evidencias de validez de criterio (i.e., relación de las puntuaciones del SENA con el modelo de cinco factores de la personalidad) (Etkin et al., 2020, 2021, 2022), lo que sugiere que el SENA es un instrumento adecuado para evaluar los problemas interiorizados y exteriorizados en adolescentes españoles.

2. Personalidad

2.1. Modelo de cinco factores

Uno de los constructos más estudiados en relación con la psicopatología es la personalidad. Y es que los hallazgos respecto a la comorbilidad de los trastornos mentales y síntomas psicopatológicos más comunes estarían apuntando a que en la base de los factores transdiagnósticos de interiorización y exteriorización podría estar la personalidad (Krueger y Tackett, 2003), y que ésta podría generar vulnerabilidades para el desarrollo de síntomas psicopatológicos específicos (Krueger y cols., 2018; 2020).

De acuerdo con una conceptualización que podríamos denominar biodisposicional de la personalidad se entendería un conjunto de disposiciones en parte de origen biológico, que influyen en el desarrollo de patrones de conducta, reacciones emocionales y cogniciones relativamente estables y consistentes. Estas dimensiones son universales, de modo que todas las personas las poseen en distinto grado, lo cual determina la existencia de diferencias individuales en la conducta ante situaciones semejantes. Además, la naturaleza de estas dimensiones es tanto biológica como ambiental, de forma que la interacción de ambos aspectos serían los responsables de las diferencias individuales entre las personas (Ashton, 2018; Boyle y cols., 2008; Costa y McCrae, 1992; Eysenck, 1992; 1989; Eysenck y Eysenck, 1985; McCrae y Costa, 1995; Zuckerman, 1992).

Existen diferentes modelos que podríamos entender como biodisposicionales. Uno de los pioneros, y de los más importante, surge precisamente de vincular la personalidad normal con la psicopatología. Así, H. J. Eysenck propuso tres dimensiones básicas extraversión (E), neuroticismo (N) y psicoticismo (P), dimensiones que se entendían como factores de vulnerabilidad a desarrollar trastornos psicológicos de tipo “neurótico” (N) y trastornos “psicóticos” y “psicopáticos” (P) (Eysenck y Eysenck, 1985). Con un acento más psicobiológico J.A. Gray formuló un modelo neuropsicológico de personalidad de tres sistemas emocionales

básicos: los sistemas de inhibición conductual (BIS), el sistema de activación conductual (BAS), y el sistema de lucha/huida (FFS) (Gray y McNaughton, 2000). Se ha propuesto que las diferencias individuales en la sensibilidad al castigo están relacionadas con el funcionamiento combinado de FFS/BIS, y que la sensibilidad a la recompensa se relaciona con el funcionamiento del BAS (Corr, 2004).

No obstante, hoy en día el modelo dominante es el modelo de los Cinco Grandes (BF) o Modelo de Cinco Factores (FFM) (John y cols., 2008; McCrae y Costa, 2010; Widiger y cols., 2018). Este modelo ofrece una taxonomía descriptiva útil para la mayoría de los rasgos de personalidad de acuerdo con diferentes autores (Digman, 1990; Goldberg, 1993; John y Srivastava, 1999; McCrae y Costa, 2008) y ha permitido avances en la investigación de la personalidad al proporcionar estructura, claridad y dirección a la investigación en diversos campos de estudio como la psicología de las organizaciones, la psicopatología, la psicología del desarrollo, los estudios transculturales o la psicología comparada (Deal y cols., 2007; McCrae y Sutin, 2007; Verardi y cols., 2008).

Entre los distintos instrumentos de evaluación desarrollados bajo el FFM, el NEO-PI-R (Costa y McCrae, 1992) es uno de los cuestionarios más completos y usados para la evaluación de la personalidad adulta, tanto en investigación como a nivel aplicado. Este instrumento consta de cinco grandes dimensiones de personalidad: neuroticismo (N), extraversión (E), apertura a la experiencia (O), amabilidad (A) y responsabilidad (C) y asume que estas grandes dimensiones de personalidad son independientes entre ellas. Cada dimensión se compone de seis facetas, como se puede observar en la Tabla 1 (McCrae y Costa, 2008, 2010).

Tabla 1.

Factores y facetas del NEO-PI-R

Factores	
N	Neuroticismo
E	Extraversión
O	Apertura
A	Amabilidad
C	Responsabilidad
Facetas de neuroticismo	
N1	Ansiedad
N2	Hostilidad
N3	Depresión
N4	Ansiedad social
N5	Impulsividad
N6	Vulnerabilidad
Facetas de extraversión	
E1	Cordialidad
E2	Gregarismo
E3	Asertividad
E4	Actividad
E5	Búsqueda de emociones
E6	Emociones positivas
Facetas de apertura	
O1	Fantasía
O2	Estética
O3	Sentimientos
O4	Acciones
O5	Ideas
O6	Valores
Facetas de amabilidad	
A1	Confianza
A2	Franqueza
A3	Altruismo
A4	Actitud conciliadora
A5	Modestia
A6	Sensibilidad a los demás
Facetas de responsabilidad	
C1	Competencia
C2	Orden
C3	Sentido del deber
C4	Necesidad de logro
C5	Autodisciplina
C6	Deliberación

La dimensión Neuroticismo (N) se compone por las facetas: Ansiedad, Depresión, Hostilidad, Ansiedad social, Impulsividad y Vulnerabilidad. Esta dimensión se asocia con inestabilidad emocional y con estados emocionales negativos, así como con ansiedad, preocupación o trastornos depresivos. Niveles altos de N se relacionan con la dificultad de regresar a un estado de equilibrio tras las experiencias emocionales importantes. Por el

contrario, aquellos que son estables emocionalmente son capaces de controlar sus reacciones emocionales de forma adecuada y adaptada al contexto.

La Extraversión (E) está configurada por Cordialidad, Gregarismo, Asertividad, Actividad, Búsqueda de emociones y Emociones positivas. Personas con niveles altos de E tienden a ser más sociables, disfrutan de las fiestas y de la aventura, con muchos amigos, incluso a veces pueden ser impulsivas, despreocupadas y agresivas. Los introvertidos, por el contrario, se caracterizan por el retraimiento, por hacer planes a largo plazo, pensar las cosas antes de hacerlas y por tener un círculo social reducido.

La Apertura a la Experiencia (O) refleja el hecho de tener ideas o valores no convencionales, así como intereses muy amplios tanto en el mundo exterior como en interior. Esta dimensión se asocia con aspectos intelectuales como el pensamiento divergente, la creatividad y la flexibilidad cognitiva. Los factores que componen la Apertura a la experiencia son: Fantasía, Estética, Sentimientos, Acciones, Ideas y Valores.

La dimensión amabilidad (A) muestra la capacidad altruista, la compasión, la franqueza y la tendencia a ser sensible ante las necesidades de los otros. Sus principales facetas son: Franqueza, Altruismo, Actitud conciliadora, Modestia y Sensibilidad a los demás.

Finalmente, la Responsabilidad (C) evalúa la tendencia al sentido del deber, a la organización y planificación de objetivos, la disciplina y la eficiencia. Las personas con alta C son escrupulosas, puntuales, fiables y muy capaces de controlar sus impulsos. Las facetas de las que se compone son: Competencia, Orden, Sentido del deber, Necesidad de logro, Autodisciplina y Deliberación.

2.2. Personalidad en la adolescencia

La adolescencia es un estadio importante del desarrollo, y la personalidad jugaría un papel relevante durante este periodo. Cada vez hay más evidencia de la validez predictiva

de los rasgos y dimensiones del FFM en aspectos importantes de la vida de los adolescentes, tales como la psicopatología y la salud (De Bolle y cols., 2012). Además, diferencias de personalidad y de problemas de salud mental en niños y adolescentes se van a manifestar en alteraciones en el funcionamiento durante el resto del ciclo vital (Hampson y cols., 2015; Martin y cols., 2007; Moffitt y cols., 2011).

Sin embargo, la evaluación de la personalidad normal en la infancia y adolescencia no está establecida en la práctica clínica, a pesar de que esto podría mejorar el tratamiento y el pronóstico (Tyrrer y Yang, 2015). Por lo tanto, varios autores del campo indican la importancia de realizar una evaluación objetiva y estandarizada del espectro normal de la personalidad en la infancia y adolescencia (Crego y cols., 2016; Widiger, 2015; Widiger y cols., 2009). Además, medir la personalidad normal en lugar de los trastornos de la personalidad puede ser más adecuado en edades tempranas ya que los rasgos de personalidad son más estables a lo largo de la vida que los trastornos de personalidad (Roberts y DelVecchio, 2000; Shiner, 2009).

Debido al consenso respecto a la validez del FFM, se aboga por llevar a cabo esta evaluación de la personalidad normal en edades tempranas siguiendo este modelo (Costa y cols., 2008; De Clercq y De Fruyt, 2012; Shiner, 2009; Tackett y cols., 2008, 2012). No obstante, las dimensiones de la personalidad de los Cinco Factores en los niños y adolescentes tienen un contenido ligeramente diferente en comparación con los adultos (Mervielde y De Fruyt, 2002), ya que el repertorio conductual de los niños aún se está desarrollando.

En la construcción de instrumentos de evaluación de personalidad basados en el FFM en poblaciones de niños y adolescentes tradicionalmente se han seguido tres diferentes enfoques: 1) creación de nuevos cuestionarios para evaluar los cinco factores en la niñez; 2) administrar a muestras de adolescentes cuestionarios diseñados para evaluar los cinco factores en adultos adaptando el contenido de algunos ítems a grupos más jóvenes; 3)

desarrollar versiones adaptadas a estas edades de instrumentos para adultos (De Pauw, 2017).

Siguiendo la primera estrategia, podemos encontrarnos con el Inventario Jerárquico de Personalidad para Niños (HiPIC; Mervielde y De Fruyt, 2002), que evalúa las cinco dimensiones de personalidad, pero los autores utilizaron las etiquetas 'benevolencia' en lugar de amabilidad e 'imaginación' en lugar de apertura a la experiencia para indicar diferencias en el contenido (Mervielde y De Fruyt, 2002). Aunque inicialmente se trataba de un cuestionario de heteroevaluación, también se ha utilizado como un instrumento de autoevaluación en adolescentes (De Fruyt y cols., 2000; McCrae y cols., 2002).

La segunda estrategia consistente en administrar cuestionarios desarrollados en adultos para evaluar la personalidad en adolescentes. Tanto en la administración del NEO PI-R (De Fruyt y cols., 2000; McCrae y cols., 2002; Romero y cols., 2002) como su versión corta, el NEO-FFI (Markey y cols., 2002; McCrae y Costa, 2004; Parker y Stumpf, 1998) a población adolescente, se observan problemas de comprensión de muchos de los ítems porque los términos empleados son complejos, o porque su contenido hace referencia a conductas adultas (McCrae y cols., 2005).

La tercera estrategia consiste en la adaptación de cuestionarios de autoevaluación ya establecidos en adultos para la población de niños y adolescentes. Ejemplos de este tipo de estrategia son: HSPQ de Cattell, EPQ-J de Eysenck o TCI-J de Cloninger. En el presente trabajo haremos especial énfasis en el JS-NEO (Ortet y cols., 2010) que sigue el marco de esta tercera estrategia. Este cuestionario es una versión para adolescentes del NEO PI-R (McCrae y Costa, 2010) que evalúa las cinco dimensiones y las treinta facetas propuestas por el FFM. Del JS NEO existen también una versión corta de 150 ítems, el JS NEO-S (Ortet y cols., 2010) y una abreviada de 60 JS NEO-A60 (Ortet-Walker y cols., 2020).

El JS-NEO es una adaptación precisa del NEO-PI-R a adolescentes hispanohablantes de 12 a 18 años y replica la misma estructura en adolescentes que en población adulta tanto a nivel de dimensiones como a nivel de facetas. Además, el uso de ítems más comprensibles y situaciones familiares para este grupo de edad también facilitó una evaluación fiable y válida de los rasgos del FFM, incluyendo las facetas más problemáticas para los niños, como las escalas de Apertura a la Experiencia (Ortet y cols., 2012).

Para el desarrollo del JS NEO se utilizó una primera muestra de prueba de 2 chicos y dos chicas de 12 años. Se les administró la versión de adultos para identificar los ítems problemáticos o difíciles de entender. Posteriormente, se administró la versión piloto del JS NEO compuesta por 240 ítems potenciales a una primera muestra formada por 2733 estudiantes de secundaria de entre 12 y 18 años. Los resultados obtenidos mostraron que el cuestionario resultaba adecuado en general, aunque unas pocas escalas mostraban problema de fiabilidad y de estructura factorial. Concretamente, las escalas E3: Asertividad, E5: Búsqueda de sensaciones y A6: Sensibilidad a los demás saturaban inadecuadamente; mientras que las escalas E4: Actividad, O4: Acciones, O6: Valores y A6: Sensibilidad a los demás, presentaban índices de consistencia interna inadecuados.

Por ello, se desarrollaron nuevos ítems para las escalas problemáticas que se administraron a una segunda muestra de 983 de entre 12 y 18 años. Los resultados en esta segunda muestra mostraron resultados satisfactorios, con índices de fiabilidad entre .54 y .90 y una estructura factorial adecuada. Así, la Tabla 2 muestra la estructura factorial de la versión piloto y de la versión definitiva, mientras que la Tabla 3 presenta los índices de congruencia que muestran como la estructura es prácticamente la misma en niños y niñas, así como en diferentes edades, aunque mostrando algún índice menor en las facetas de O4 y O6, sobre todo en edades más tempranas.

Tabla 2.

Estructura factorial con rotación Varimax y coeficientes de congruencia de la versión piloto (N=2733) y de la versión final (N=983) del JS NEO

Facet scale	N		E		O		A		C		VC ^a	
	P	J	P	J	P	J	P	J	P	J	P	J
N1: Anxiety	.77	.79	.04	.02	.16	.16	.02	.05	.10	.05	.94	.96
N2: Angry Hostility	.56	.58	-.13	.07	-.01	.00	-.52	-.48	-.13	-.15	1.00	.99
N3: Depression	.78	.80	-.19	-.19	.11	.12	.07	.05	-.21	-.17	.98	.97
N4: Self-Consciousness	.73	.73	-.17	-.22	-.05	-.00	.10	.00	-.09	-.12	.99	1.00
N5: Impulsiveness	.44	.49	.21	.39	.15	.11	-.39	-.28	-.34	-.34	.99	1.00
N6: Vulnerability	.74	.72	-.12	-.17	-.08	-.10	.11	.02	-.25	-.28	.97	.99
E1: Warmth	-.08	-.13	.77	.72	.19	.12	.16	.31	.09	.13	.99	.98
E2: Gregariousness	-.02	-.06	.69	.70	-.04	-.11	.11	.15	-.03	-.04	.92	.96
E3: Assertiveness ^b	-.35	-.42	.30	.50	.20	.22	-.51	-.18	.11	.25	.96	.98
E4: Activity ^b	-.05	-.03	.51	.68	.16	.16	-.44	-.23	.03	.06	.89	.88
E5: Excitement Seeking	-.09	-.03	.37	.46	.23	.26	-.35	-.31	-.20	-.09	.95	.96
E6: Positive Emotions	-.20	-.21	.71	.69	.11	.15	-.06	.13	.16	.15	.95	.97
O1: Fantasy	.12	.14	.10	.09	.55	.50	-.18	-.04	-.15	-.23	.97	.98
O2: Aesthetics	.23	.14	.03	.06	.69	.65	.00	.05	.17	.18	.97	.98
O3: Feelings	.05	.07	.34	.39	.62	.58	-.20	-.04	.03	.13	.94	.94
O4: Actions ^b	-.13	.01	.06	.32	.49	.53	.06	.07	-.04	.09	.96	.88
O5: Ideas	-.11	-.08	-.19	-.13	.68	.73	-.01	-.03	.32	.25	.95	.96
O6: Values ^b	-.04	-.11	.11	.00	.47	.53	.16	.28	-.18	-.20	.81	.81
A1: Trust	-.20	-.17	.43	.30	.09	-.08	.50	.59	.10	.21	.96	.88
A2: Straightforwardness	.09	.05	.05	-.08	.05	-.04	.69	.74	.12	.08	.97	.96
A3: Altruism ^b	-.06	-.13	.51	.26	.27	.28	.41	.62	.22	.22	.95	.88
A4: Compliance	-.07	-.08	.09	-.11	.02	-.06	.70	.69	.19	.23	.98	.95
A5: Modesty	.30	.27	.06	-.11	.18	.14	.57	.61	-.14	-.18	.91	.90
A6: Tender-Mindedness ^b	.19	.09	.15	.19	.48	.43	.24	.54	.03	.14	.79	.90
C1: Competence	-.20	-.27	.09	.11	.04	.11	.01	.07	.80	.78	.94	.97
C2: Order	.01	-.03	.03	.09	-.12	-.06	-.02	.03	.69	.72	.99	.99
C3: Dutifulness	-.08	-.09	.15	.09	.12	.16	.36	.44	.67	.63	.97	.94
C4: Achievement Striving	.04	-.03	.12	.14	.05	.10	-.09	.04	.79	.81	.95	.96
C5: Self-Discipline	-.20	-.24	.07	.06	.04	.07	.11	.19	.79	.77	.96	.96
C6: Deliberation	-.20	-.27	-.12	-.30	-.04	.01	.30	.26	.64	.57	.99	.99
Congruence ^c	.97	.97	.97	.97	.92	.91	.95	.95	.95	.95	.95	.95

Nota. Tabla adaptada de Ortet y cols. (2012). Los valores superiores a .40 se muestran en negrita.
^aCoficiente de congruencia variable; coeficiente de congruencia total en la última casilla. ^bCambio en la escala de la versión piloto del JS NEO. ^cCongruencia con la estructura normativa adulta americana del JS NEO. Los coeficientes de congruencia $\geq .86$ son mayores que el 95% de las rotaciones aleatorias de datos (McCrae y cols., 1996). Los valores y coeficientes de la versión piloto del JS Neo aparecen en cursiva.

Tabla 3.

Coeficientes de congruencia finales del análisis factorial del JSNEO

Escala	Hombres (N = 498)	Mujeres (N = 482)	12-13 años (N = 291)	14-15 años (N = 386)	16-18 años (N = 306)
JS NEO Neuroticismo	.96	.95	.95	.96	.94
N1: Ansiedad	.96	.98	.97	.96	.94
N2: Hostilidad	.99	.98	.98	.98	.99
N3: Depresión	.97	.98	.94	.98	.97
N4: Ansiedad Social	1.00	.97	.98	.97	.97
N5: Impulsividad	.99	1.00	.98	.99	.98
N6: Vulnerabilidad	.98	.98	.96	.98	.98
JS NEO Extraversión	.96	.97	.94	.97	.96
E1: Cordialidad	.96	.97	.98	.96	.99
E2: Gregarismo	.93	.97	.97	.96	.94
E3: Asertividad	.98	.99	.98	.96	.98
E4: Actividad	.84	.90	.89	.83	.87
E5: Búsqueda de emociones	.98	.88	.94	.89	.98
E6: Emociones positivas	.97	.93	.96	.95	.95
JS NEO Apertura	.88	.92	.90	.87	.93
O1: Fantasía	.91	.99	.97	.94	.98
O2: Estética	.92	.99	.98	.97	.99
O3: Sentimientos	.95	.93	.91	.94	.94
O4: Acciones	.92	.81	.61	.88	.86
O5: Ideas	.96	.96	.89	.93	.99
O6: Valores	.79	.84	.77	.78	.73
JS NEO Amabilidad	.93	.96	.96	.94	.95
A1: Confianza	.80	.95	.92	.89	.89
A2: Franqueza	.95	.97	.92	.93	.95
A3: Altruismo	.84	.93	.90	.87	.91
A4: Actitud conciliadora	.93	.96	.95	.95	.97
A5: Modestia	.90	.92	.95	.86	.94
A6: Sensibilidad a los demás	.90	.92	.94	.88	.88
JS NEO Responsabilidad	.94	.96	.94	.94	.95
C1: Competencia	.96	.97	.97	.97	.96
C2: Orden	.98	.99	.98	.99	.98
C3: Sentido del deber	.96	.94	.93	.94	.93
C4: Necesidad de logro	.96	.97	.98	.95	.95
C5: Autodisciplina	.96	.97	.96	.96	.96
C6: Deliberación	.99	.97	.98	.99	.96
Congruencia total	.94	.95	.94	.94	.95

Nota. Tabla adaptada de Ortet y cols. (2012). Los coeficientes de congruencia $\geq .86$ son mayores que el 95% de las rotaciones de datos aleatorios (McCrae y cols., 1996).

3. Sucesos vitales estresantes (SLE)

Un factor importante en el inicio y cronificación de los trastornos mentales durante la adolescencia es el estrés (Gee y Casey, 2015; Grant y cols., 2004; Holder y Blaustein, 2014). El estrés implica la adaptación de un organismo a cualquier situación desafiante o conjunto de demandas externas que requieran gastar recursos para hacer frente a sus circunstancias (Monroe, 2008; Shields y Slavich, 2017). Los sucesos vitales estresantes (SLE) se refieren a acontecimientos que ocurren en un momento puntual de la vida, causan niveles de estrés elevado, y se caracterizan por su inicio agudo y su duración relativamente corta.

Se ha propuesto que la experiencia de múltiples factores estresantes en la adolescencia aumenta la probabilidad de desarrollar síntomas psiquiátricos a través de su acción sobre sistemas involucrados en las respuestas emocionales y de afrontamiento a las amenazas. Dichos sistemas incluyen la amígdala (Swartz y cols., 2015), la neurotransmisión serotoninérgica (Caspi y cols., 2010) y el eje hipotalámico-pituitario-adrenal (Miller y cols., 2007), y la acción sería en parte a través de mecanismos epigenéticos vinculados a ellos (Palma-Gudiel y cols., 2015; van der Knaap y cols., 2014).

Aunque durante bastante tiempo se pensó que la presencia de sucesos vitales negativos ocurría de forma aleatoria, esta asunción no es completamente cierta. De hecho, el número de sucesos vitales reportados por una persona en distintos periodos de su vida presenta una relación significativa (Andrews, 1981; Saudino y cols., 1997). Es más, estudios longitudinales también han demostrado una continuidad significativa en la frecuencia con la que una determinada persona experimenta determinados sucesos vitales, y a su vez, los rasgos de personalidad parecen tener un papel relevante en la probabilidad de experimentar determinados sucesos vitales, así como en su recurrencia (Andrews, 1981; Headey y Wearing, 1989).

Así, cuando se intentan analizar las causas de la ocurrencia de los sucesos vitales desde un punto de vista genético-epidemiológico se encuentra que algunos de los sucesos vitales que se dan a lo largo de la vida muestran una cierta correlación significativa entre pares de gemelos y esta correlación es significativamente mayor en gemelos monocigóticos que en dicigóticos, lo que está sugiriendo que aspectos genéticos pueden explicar las diferencias individuales en los sucesos vitales reportados (Kendler y cols., 1993; Plomin y Lichtenstein, 1990; Plomin y cols., 1997). Es decir, resulta posible que determinados factores psicológicos, como la personalidad, que están influenciados a su vez por factores genéticos, afecten a la posibilidad de experimentar algunos sucesos vitales negativos en mayor medida (Kendler y Greenspan, 2006).

3.1. Tipologías de SLE

Estos hallazgos sugieren la existencia de distintos tipos de sucesos vitales y, de hecho, una recomendación importante para aumentar la evidencia de validez en la evaluación de SLE y para estudiar su impacto en la salud mental es tener en cuenta diferentes tipologías de sucesos vitales (Grant y cols., 2004; Hammen, 2005; Vrshek-Schallhorn y cols., 2015). Así, una distinción relevante entre SLE es su naturaleza dependiente versus independiente. Así, los sucesos vitales se han diferenciado entre aquellos que se consideran dependientes e independientes (Wichers y cols., 2012). Los sucesos dependientes son aquellos que ocurren como consecuencia de las acciones o conductas propias (p.e despido laboral, repetir curso, etc.); por el contrario, aquellos sucesos impredecibles, que no dependen de la persona se consideran independientes (p.e. muerte de un familiar, sufrir un accidente, etc.). Estudios de genética apoyan esta diferenciación, indicando que los sucesos vitales independientes están más influenciados por el ambiente no compartido, mientras que los sucesos vitales dependientes presentarían una mayor heredabilidad, indicando que estarían más influenciados por factores genéticos, posiblemente a través de la personalidad (Johnson y cols., 2013; Kendler y Baker, 2007).

Así, Plomin y cols. (1990) realizaron un estudio con gemelos monocigóticos y dicigóticos y encontraron que el 40% de la varianza en la ocurrencia de sucesos vitales se debía a influencias genéticas, mientras que el resto de la varianza se explicaba por el ambiente no compartido. También demostraron que los sucesos vitales dependientes eran los que presentaban una mayor heredabilidad (43%) frente a los sucesos poco dependientes (18%). En otros estudios llevados a cabo en población adulta también se muestra una mayor heredabilidad de los sucesos dependientes, en los que el individuo juega un papel activo, que en los sucesos independientes (Kendler y Greenspan, 2006; Kendler y cols., 1993; McGue y Bouchard, 1991). En adolescentes, también se ha encontrado una mayor influencia genética (45%) en aquellos sucesos vitales dependientes del propio comportamiento (Bemmels y cols., 2008; Billig y cols., 1996).

Por tanto, por lo que respecta a los sucesos vitales independientes, parecen no estar tan afectados por la influencia genética, sino más bien por aspectos del ambiente no compartido. En cambio, se ha encontrado que los SLE dependientes tienen una estimación de heredabilidad sustancialmente mayor que los SLE independientes en muestras de adultos y adolescentes (Johnson y cols., 2013; Kendler y Baker, 2007). Esto indica que las características personales de base genética pueden estar involucradas en la búsqueda, creación o evocación de SLE dependientes.

Además, también es relevante tener en cuenta la dimensión interpersonal de los SLE. Los SLE interpersonales hacen referencia a aquellos sucesos que afectan directamente a las relaciones con los demás frente a los personales que se refieren a sucesos que experimenta principalmente el individuo solo. Esta distinción cobra especial significado en lo que se refiere a determinados trastornos mentales como la depresión (Hammen, 2005). La adversidad interpersonal, como discusiones matrimoniales (Whisman, 2007), duelo (Cole y Dendukuri, 2003), rechazo de los padres (McLeod y cols., 2007) y apego disfuncional entre padres e

hijos (Groh y cols., 2012) son algunos de los SLE interpersonales que se relacionan de forma significativa con el desarrollo de psicopatología.

Otra dimensión de SLE importante es su grado de impacto negativo. Los SLE graves o importantes son aquellos que presentan un impacto negativo de moderado a severo mientras aquellos con un bajo impacto se denominan SLE leves (Brown y Harris, 1978; Compas, 1987; Kendler y cols., 1997; Monroe, 2008). Los estudios también muestran diferencias entre el estrés crónico, agudo y temprano. Existe una relación entre la depresión y el estrés crónico reciente, que a diferencia de los SLE puntuales, se caracteriza por la resistencia a lo largo del tiempo (Hammen, 2005). La depresión también está asociada con la adversidad temprana que ocurre durante la niñez y la adolescencia en contraste con los factores estresantes recientes que ocurren en los últimos meses o años (Gilman y cols., 2003; Kessler y cols., 1997). Además, la adversidad temprana puede conferir indirectamente un mayor riesgo de psicopatología adulta a través del estrés crónico más reciente, en lugar de actuar directamente (Hazel y cols., 2008).

3.2. SLE, personalidad y psicopatología

Existe una amplia evidencia de la relación entre SLE y problemas de salud mental en la adolescencia (Grant y cols., 2004; Lynch y cols. 2021). La adolescencia es un periodo en el que conviven cambios madurativos, demandas sociales y la asunción de un nuevo rol más adulto que, a menudo, se perciben como situaciones de estrés (Serafini y cols., 2015). La consecuencia de esta exposición a situaciones estresantes unida a predisposiciones individuales y genéticas sería el aumento de la vulnerabilidad ante el desarrollo de problemas de salud mental (Gee y Casey, 2015; Holder y Blaustein, 2014).

En lo referente a esta asociación entre estrés y psicopatología, algunos de los síntomas psicopatológicos que se experimentan en la adolescencia derivan de situaciones vitales adversas. Tanto en adolescentes sanos como en muestras clínicas se ha encontrado que la

presencia de síntomas interiorizados y exteriorizados estaba altamente relacionada con la ocurrencia de SLE (Duggal y cols., 2000; Lewinsohn y cols., 2003; March-Lanes y cols., 2017; Wagner y cols., 2003).

3.2.1. Tipos de SLE y psicopatología interiorizada y exteriorizada.

A pesar de la importancia de identificar el posible impacto diferencial de distintos tipos de SLE en la salud mental, el análisis sistemático del papel de distintas tipologías de SLE en el desarrollo de trastornos psicopatológicos es prácticamente inexistente y la mayoría de ellos se centran únicamente en los SLE interpersonales dependientes. No obstante, algunos estudios han explorado tipologías concretas, como los suceso dependientes e independientes, graves o importantes y menores, o interpersonales y no interpersonales.

Los SLE interpersonales dependientes, especialmente los graves o importantes, se asocian consistentemente con síntomas y trastornos depresivos y ansiosos en la adolescencia (Cohen y cols., 2013; Espina y Calvete, 2017; Flynn y cols., 2010; Flynn y Rudolph, 2011; Hankin y cols., 2010; Krackow y Rudolph, 2008; Rudolph y cols., 2000, Shapero y cols., 2013). Además, los SLE interpersonales dependientes son predichos por el hecho de haber sufrido depresión con anterioridad (Conway y cols., 2012; Espina y Calvete, 2017; Hamilton y cols., 2014; Harkness y Stewart, 2009).

Algunos SLE de tipo dependiente como la conducta sexual de riesgo, malos hábitos de sueño, el uso de sustancias o el rendimiento académico se relacionaron con la psicopatología general y con mayores niveles de problemas interiorizados y exteriorizados (Sunderland y cols., 2021). Siguiendo en esta misma línea, en una muestra clínica de adolescentes, Rudolph y cols. (2000) encontraron que los SLE dependientes no interpersonales eran el tipo de suceso que mejor predecía la aparición de problemas exteriorizados, mientras que los SLE dependientes interpersonales se asociaron con este tipo de sintomatología solo en las chicas.

Por otra parte, no se encuentra asociación entre los SLE independientes y la sintomatología exteriorizada (Rudolph y cols., 2000).

En relativo a los SLE de tipo independiente, un análisis pormenorizado de determinados sucesos independientes interpersonales relacionados con intimidación y acoso determinó que este tipo de SLE fueron predictivos de depresión, ansiedad, somatización y síntomas interiorizados (Reijntjes y cols., 2010; Rigby, 2003). Los SLE independientes relacionados con el consumo de sustancias por parte de los padres o hermanos aumentó la probabilidad de problemas interiorizados y exteriorizados (Olinó y cols., 2020).

En una revisión reciente, Lynch y cols. (2021) encontraron que los SLE se asociaron de forma sistemática con psicopatología en general y con psicopatología exteriorizada. También se informó que los SLE interpersonales relacionados con el entorno familiar y el hogar aumentan el riesgo de psicopatología en los jóvenes y mayores niveles de síntomas exteriorizados en adolescentes.

Además, se ha comprobado que diferentes procedimientos de puntuación de los SLE implican diferencias pequeñas pero significativas en su asociación con distintos síntomas psicopatológicos. Así, la puntuación de gravedad subjetiva presenta relaciones significativamente más altas con todas las escalas de interiorización, mientras que las puntuaciones de cantidad de SLE mostraron asociaciones ligeramente más altas con todos los síntomas exteriorizados (Dohrenwend, 2006; Turner y Wheaton, 1997; Zimmerman, 1983b).

También Vrshek-Schallhorn y cols. (2015), en una de las pocas revisiones sobre el tema, estudiaron de forma sistemática y pormenorizada el papel de los SLE interpersonales-no interpersonales, dependientes-independientes, graves-leves y crónicos-episódicos en la aparición de trastornos depresivos en adultos jóvenes. Sus principales hallazgos indican que los SLE graves interpersonales dependientes e independientes, junto con los SLE interpersonales crónicos predecían la aparición de depresión y que los eventos más relevantes

para la aparición de trastornos internalizados son los SLE no interpersonales independientes graves (Rudolph y cols., 2000; Vrshek-Schallhorn y cols., 2015).

3.2.2. Tipos de SLE y personalidad

Como hemos visto, existe amplia evidencia del papel de los SLE y de la personalidad en el desarrollo de psicopatología. Sin embargo, son pocos los estudios que han examinado la relación de la personalidad con la ocurrencia de SLE. La Tabla 4 recoge la mayor parte de estudios al respecto y los principales hallazgos.

Tabla 4.

Una revisión de los estudios previos que exploran la asociación entre el Modelo de Cinco Factores (FFM) y SLE.

Estudio	Muestra	Diseño	Evaluación de SLE	Evaluación de personalidad	Resultados principales
Asselmann y Specht, 2020	N=49,932 Media de edad= 48,99 (17,71)	Longitudinal. 12 años de seguimiento en 4 aoleadas.	SLE importantes relacionados con la pareja: - divorcio - separación - mudarse juntos - casarse	FFM	A → mudarse juntos (b=-.08) A → casarse (b=-.10) A → separarse (b= -.17) A → divorciarse (b=-.12) Divorciarse → ↓S (b= -.07) Mudarse → ↑O (b= .07) Casarse → ↓O (b= -.03) Mudarse → ↑C (b= .07) p < 0.01
Clarke y cols., 2018	N=1506 Media de edad = 54.2 (12.4)	Transversal.	SLE durante los 6 últimos meses: - Dependientes - Independientes	N	N → SLE dependientes ($\beta=0.10, p=2.4 \times 10^{-21}$) N → SLE independientes ($\beta=0.08, p=5.1 \times 10^{-15}$)
Denissen y cols., 2019	N=13040 Media de edad= 44,5 (17,7)	Longitudinal. 9 años de seguimiento.	Transiciones a un rol adulto: - trabajo remunerado - matrimonio - nacimiento de un hijo - voluntariado SLE de pérdida: - desempleo - discapacidad - divorcio - viudedad	FFM	(Transversal) S → trabajo remunerado (b=.21) C → trabajo remunerado (b=.17) C → nacimiento de un hijo (b=-.08) O → nacimiento de un hijo (b=-.10) S → matrimonio (b=.07) C → matrimonio (b=.11) O → matrimonio (b=-.19) S → discapacidad (b=-.63) C → discapacidad (b=-.32) E → discapacidad (b=-.31) O → divorcio (b=.13) (Longitudinal) Trabajo remunerado → ↑S (emotional stability) (b=.11) Nacimiento de un hijo → ↓C (b=-.14) 99.9% CI
Jeronimus y cols., 2013	N=2981 Media de edad= 41.99 (13.08)	Longitudinal. 24 meses de seguimiento.	SLE distales y recientes, positivos y negativos.	N	SLE distales positivos → ↓N (B= -0.047 p ≤ 0.01) SLE distales negativos → ↑N (B=0.064 p ≤ 0.001) SLE recientes negativos → ↑N (B= 0.036 p ≤ 0.05)

<p>Kandler y cols., 2012</p>	<p>N=224 gemelos monocigóticos y 114 gemelos dicigóticos Media de edad= 39.56 (13.46)</p>	<p>Longitudinal. 10 años de seguimiento.</p>	<p>SLE controlables negativos, SLE controlables positivos y SLE poco controlables negativos.</p>	<p>FFM</p>	<p>E → SLE controlables positivos ($r_G = 0.35; p \leq 0.05$) N → SLE controlables negativos ($r_G = 0.20; p \leq 0.05$) SLE poco controlables negativos → N ($r_E = 0.10; p \leq 0.05$) A → SLE controlables negativos ($r_G = -0.24; p \leq 0.05$) SLE controlables negativos → A ($r_E = -0.10; p \leq 0.05$) A SLE poco controlables negativos ($r_G = -0.18; p \leq 0.05$) O → SLE controlables positivos ($r_G = 0.41; p \leq 0.05$) O → SLE controlables negativos ($r_G = 0.13; p \leq 0.05$) SLE controlables negativos → O ($r_E = 0.09; p \leq 0.05$) O → SLE poco controlables negativos ($r_G = 0.20; p \leq 0.05$)</p>
<p>Kandler y cols., 2016</p>	<p>T1; N=736 gemelas (246 MZ and 120 DZ) + 4 gemelas desparejadas. Media de edad= 34.35 (13.20) T2; N=630 gemelas (192 MZ and 68 DZ) + 110 gemelas desparejadas. Media de edad= 39.30 (13.20)</p>	<p>Longitudinal. 5 años de seguimiento.</p>	<p>Lista general: ocurrencia de SLE durante los últimos 5 años y valencia de esas experiencias.</p>	<p>N</p>	<p>SLE específicos → ↑N (valores entre $p = -.16$ and $p = .15$)</p>
<p>Lüdike y cols., 2011</p>	<p>N=149 Media de edad=19,51 (0,77)</p>	<p>Longitudinal. 3 evaluaciones en 4 años de seguimiento.</p>	<p>SLE positivos y negativos agregados.</p>	<p>FFM</p>	<p>N → SLE negativos ($r = .24$) Cambio N → SLE negativos ($r = .30$) Cambio N → SLE positivos ($r = -.24$) E → SLE positivos ($r = .12$) Cambio E → SLE positivos ($r = .14$) Cambio E → SLE negativos ($r = -.10$) O → SLE negativos ($r = .08$) O → SLE positivos ($r = .12$) Cambio A → SLE positivos ($r = .16$) C → SLE negativos ($r = -.09$) Cambio C → SLE positivos ($r = .16$) <p>$p < .05$ en todos los casos</p> </p>
<p>Metts y cols., 2022</p>	<p>N= 627 adolescentes Age: 15-17</p>	<p>Longitudinal. 3 oleadas en 3 años de seguimiento.</p>	<p>SLE crónicos SLE episódicos: - SLE dependientes - SLE independientes SLE interpersonales SLE no interpersonales</p>	<p>N</p>	<p>N → ↑SLE crónicos interpersonales ($\beta = .06, p = .005$) N → ↑SLE episódicos no interpersonales ($\beta = .08, p = .016$) N → ↑SLE episódicos dependientes no interpersonales ($\beta = .08, p = .01$) N_{T2} → ↑SLE_{T3} episódicos independientes no interpersonales ($\beta = .25, p < .001$) SLE crónicos totales → ↑N ($\beta = .11, p < .001$)</p>

					<p>SLE crónicos interpersonales → ↑ N ($\beta=.10$, $p=.001$) SLE crónicos no interpersonales → N ($\beta=.09$, $p=.004$) SLE episódicos totales no interpersonales → ↑ N ($\beta=.07$, $p=.017$) SLE episódicos dependientes no interpersonales → ↑ N ($\beta=.06$, $p=.02$)</p>
Middeldorp y cols., 2008	N=5782 gemelos monocigóticos y dicigóticos Media de edad= 31.4 (9.9)	Longitudinal. 2 años de seguimiento.	SLE agregados	N y E	N → SLE ($F=19,5$ $p<0.01$) SLE → ↑ N ($F= 11,7$ $p<0.01$)
Rakhshani y Furr., 2021	N _{T1} = 258 Media de edad _{T1} = 43.8 (11.3) N _{T2} = 173 Media de edad _{T2} = 45.2 (11.5) N _{T3} = 128 Media de edad _{T3} = 47.3 (10.6)	Longitudinal. Tres oleadas a intervalos de 1,5 años.	SLE dependientes e independientes. Valencia del impacto. Puntuaciones de adversidad acumulada.	HEXACO	<p>Personalidad_{T1} → Adversidad_{T1-T2} X → SLE dependientes ($B= -0.24$ $p < 0.01$) A → SLE dependientes ($B= -0.17$ $p < 0.05$) C → SLE dependientes ($B= -0.17$ $p < 0.05$)</p> <p>Personalidad_{T2} → Adversidad_{T2-T3} H → SLE dependientes ($B= -0.14$ $p < 0.1$) X → SLE dependientes ($B= -0.18$ $p < 0.05$) A → SLE dependientes ($B= -0.13$ $p < 0.1$) C → SLE dependientes ($B= -0.26$ $p < 0.01$) O → SLE dependientes ($B= -0.19$ $p < 0.05$) E → SLE independientes ($B= 0.18$ $p < 0.05$)</p> <p>Adversidad_{T1-T2} → Personalidad_{T2} SLE dependientes → H ($B= -0.08$ $p < 0.1$) SLE independientes → X ($B= -0.11$ $p < 0.1$)</p> <p>Adversidad_{T2-T3} → Personalidad_{T3} SLE dependientes → E ($B= 0.10$ $p < 0.05$) SLE dependientes → X ($B= -0.14$ $p < 0.1$) SLE dependientes → A ($B= -0.12$ $p < 0.05$) SLE independientes → A ($B= -0.11$ $p < 0.05$)</p>
Viruela y cols., 2009	N=393 adolescentes Media de edad=15,26 (0,68)	Transversal	Cantidad y grado de afectación de SLE	FFM	<p>N → Cantidad ($B= .24$ $p<.001$) N → Afectación ($B= .13$ $p<.01$) E → Cantidad ($B= .20$ $p<.001$) A → Cantidad ($B= -.14$ $p<.01$) A → Afectación ($B= .16$ $p<.05$)</p>

Gran parte de los trabajos que examinan la relación entre personalidad y SLE asumen que son los sucesos vitales los que impactan en nuestra personalidad y predicen cambios significativos en la misma, indicando efectos de socialización. Así, Asselmann y Specht (2020) encontraron que distintos SLE relacionados con la pareja (casarse, divorciarse, separarse o mudarse) producían cambios en la estabilidad emocional, apertura a la experiencia y responsabilidad. Por su parte, Denissen y cols. (2019) mostraron que los sucesos vitales que implican transiciones importantes de la vida adulta generan cambios en algunas dimensiones de personalidad como el neuroticismo y la responsabilidad. Otros autores también indican que la ocurrencia de determinados SLE específicos (Kandler y cols., 2016) o agregados (Middeldorp y cols., 2008) produce cambios en neuroticismo.

En otros estudios se explora la relevancia de la valencia y el grado de dependencia de los SLE a la hora de predecir la psicopatología. Así, Jeronimus y cols. (2013) encontraron que los SLE negativos distales y recientes y los SLE positivos distales producían cambios en neuroticismo. Por otra parte, Kandler y cols. (2012) vieron que los SLE negativos poco controlables se asociaban con neuroticismo, mientras que los SLE negativos controlables se asociaban con amabilidad y apertura a la experiencia. Rakhshani y Furr (2021) hallaron que la ocurrencia de SLE dependientes se asociaba con amabilidad, honestidad-humildad y emocionalidad; y la ocurrencia de SLE independientes se asociaba con amabilidad y extraversión. Finalmente, Metts y cols. (2022) encontraron que los SLE dependientes no interpersonales, los SLE episódicos totales no interpersonales y los SLE crónicos totales, crónicos interpersonales y crónicos no interpersonales aumentaban de forma significativa los niveles de neuroticismo.

Sin embargo, algunos estudios ponen de manifiesto que puede ser la personalidad la que prediga la ocurrencia de ciertos eventos, o que la personalidad selecciona ambientes que incrementan la probabilidad de sufrir determinados SLE. Así, Denissen y cols. (2019) mostraron que la estabilidad emocional, la responsabilidad y la apertura a la experiencia se asociaban

de forma consistente con una mayor probabilidad de sufrir determinados SLE. Siguiendo esta misma línea, Metts y cols. (2022) también encontraron efectos de selección, indicando que el neuroticismo incrementaba la ocurrencia de SLE crónicos interpersonales y de SLE no interpersonales. Asselmann y Specht (2020) encontraron que la dimensión de personalidad que más se asocia con los SLE importantes relacionados con la pareja es la baja amabilidad. Viruela y cols. (2009) mostraron que tanto la amabilidad como el neuroticismo se relacionan con la cantidad y afectación de los SLE, mientras que la extraversión se asocia con la cantidad de SLE.

En otros trabajos se muestran asociaciones significativas entre el neuroticismo y la ocurrencia de SLE de tipo dependiente e independiente (Clarke y cols., 2018) y con SLE agregados (Middeldorp y cols., 2008). También, Kandler y cols. (2016) encontraron que el neuroticismo, la amabilidad y la apertura se asociaba con los SLE negativos controlables. Estas dos últimas dimensiones también se relacionaron significativamente con los SLE negativos menos controlables, mientras que la extraversión y la apertura se relacionaron con los SLE positivos controlables.

Lüdtke y cols. (2011) exploraron no solo las dimensiones de personalidad que se asocian con SLE, sino también cómo los cambios en determinadas dimensiones de personalidad se relacionan con la ocurrencia de SLE. De esta forma, el neuroticismo, la apertura y la responsabilidad, así como el cambio en neuroticismo y en extraversión se relacionaron con los SLE negativos; mientras que la extraversión, la apertura, el cambio en neuroticismo, en extraversión, en amabilidad y en responsabilidad se asoció con SLE positivos.

Finalmente, Rakhshani y Furr (2021) encontraron asociaciones significativas entre todas las dimensiones de personalidad del modelo HEXACO con la ocurrencia de SLE de tipo dependiente, a excepción de la emocionalidad, que se asoció con los SLE de tipo independiente.

En suma, la evidencia muestra que existen asociaciones recíprocas entre personalidad y SLE, de forma que los rasgos de personalidad afectan a qué SLE se experimentan o a cómo los individuos experimentan ciertos tipos de SLE; pero a su vez, los SLE impactan en la personalidad (Denissen y cols., 2019; Jeronimus y cols., 2013; Lüdtke y cols. 2011; Rakhshani y Furr, 2021).

3.2.3. Tipos de SLE, personalidad y psicopatología

Como hemos visto, existe extensa evidencia del papel de la personalidad o de los SLE en el desarrollo de psicopatología. También ha recibido cierto grado de atención investigadora la asociación entre personalidad y SLE. Sin embargo, el estudio simultáneo del papel de ambas variables en la psicopatología es sorprendentemente escaso (para una revisión véase Kushner y cols., 2015).

Algunos de estos trabajos asumen que los efectos de la personalidad y los sucesos vitales son independientes, de forma que ambas variables contribuyen independientemente al desarrollo de los síntomas psicopatológicos. Por ejemplo, un reciente estudio longitudinal de cinco años que exploraba el papel del neuroticismo y distintos tipos de SLE en la depresión encontró que tanto el neuroticismo como diferentes tipos de SLE, especialmente los graves interpersonales y crónicos interpersonales, mostraban efectos aditivos importantes para el desarrollo de episodios depresivos mayores (Mineka y cols., 2020).

Otros trabajos, de acuerdo en el clásico modelo de diátesis estrés, han explorado efectos de moderación entre la personalidad y lo SLE (Kushner y cols., 2015). Así, el modelo de diátesis-estrés asume que los estresores impactan de forma diferencial en las personas, de forma que el efecto negativo de los SLE es más negativo en unas personas que en otras en función de factores personales de vulnerabilidad (Monroe y Simons, 1991) y, por tanto, los efectos de los SLE en la psicopatología estarían moderados por variables de personalidad. De acuerdo con esto, el neuroticismo se ha conceptualizado como un factor de vulnerabilidad

que interacciona con los SLE y con otros factores adversos y que aumenta la predisposición a sufrir trastornos emocionales, especialmente depresión (Barlow y cols., 2014). Diferentes estudios han encontrado efectos de interacción entre los SLE y el neuroticismo, fundamentalmente en síntomas y trastornos afectivos, en los que los SLE mostraban en general efectos más adversos en las personas que mostraban mayores niveles de neuroticismo que en las personas más estables emocionalmente (Kendler y cols., 2004; Vinkers y cols., 2014; Vittengl, 2017).

En otro estudio con población adolescente femenina se exploró la relación entre estas variables dependiendo de la vulnerabilidad personal inicial. De este modo los rasgos de personalidad de autocrítica y dependencia predijeron la aparición de trastornos interiorizados. No obstante, para el grupo de adolescentes que presentaba estas características de personalidad, estos rasgos actuaban como precursores de la sintomatología ansiosa y depresiva; mientras que la aparición de sintomatología interiorizada se explicaba por la reactividad al estrés en el grupo de adolescentes con niveles bajo de autocrítica y dependencia. Estos resultados indican que las interacciones entre estas tres variables pueden tomar formas alternativas a la formulación clásica de diátesis-estrés (Kopala-Sibley, 2018).

Además de los efectos aditivos e interactivos, también se podrían hipotetizar efectos indirectos o de mediación, pero estos han sido muy escasamente explorados. Por ejemplo, en un reciente estudio, Murray y O'Neill (2019) plantean un modelo en el que la personalidad actúa como mediador entre un acontecimiento estresante crónico, el tener un hermano/a con discapacidad, y los síntomas de ansiedad y depresión. De acuerdo con lo hipotetizado por los autores, el suceso vital crónico impactaba directamente en la ansiedad y depresión, pero también a través de las dimensiones de personalidad, especialmente neuroticismo y, en el caso de la depresión, extraversión y apertura a la experiencia.

Además, se podría plantear también que los procesos de mediación pueden ser distintos en función del tipo de SLE. Así, algunos estudios apuntan a que determinados SLE, por ejemplo, los dependientes, no antecederían a la personalidad, sino que en parte serían predichas por ésta (Denissen y cols., 2019; Rakhshani y Furr, 2021), por lo que podríamos hipotetizar que la personalidad influiría en el desarrollo de determinados síntomas y trastornos psicológicos en parte a través la exposición a ciertos SLE. Este tipo de estudios de mediación son muy escasos, como ya se ha mencionado, y precisamente esta tesis tiene como uno de sus principales objetivos el explorar los efectos aditivos, de moderación y también de mediación de la personalidad y los SLE en el desarrollo de los grandes factores psicopatológicos de interiorización y exteriorización.



[Marco experimental]

Objetivos generales e hipótesis

Basándonos en la literatura previa, el número de estudios cuyo objetivo es explorar la relación entre los rasgos de personalidad, los SLE y la psicopatología interiorizada y exteriorizada en población joven es escaso, y no conocemos ninguno que incluya los cinco grandes rasgos de personalidad, la diferenciación entre tipos de SLE y los factores amplios de problemas interiorizados y exteriorizados, siendo este el objetivo principal de la presente tesis doctoral.

Por ello, el Estudio 1 aborda el desarrollo de una nueva lista de verificación de SLE, el Life Events Inventory for Adolescents (LEIA). El LEIA pretende ser un instrumento de detección adecuado que permita evaluar la ocurrencia de SLE, y su impacto subjetivo y objetivo en los síntomas psicopatológicos. Además, el LEIA permitirá categorizar los SLE según su naturaleza interpersonal-no interpersonal y dependiente-independiente. La obtención de diferentes procedimientos de puntuación y la categorización de las diferentes tipologías de SLE serán de utilidad para dilucidar el impacto diferencial de las distintas dimensiones y tipologías de SLE sobre la salud mental de los adolescentes. Para ello, se examinará su asociación con síntomas interiorizados como la depresión, la ansiedad y la somatización; con síntomas exteriorizados como agresividad, problemas de atención y comportamiento antisocial; así como con la satisfacción vital subjetiva.

Dado la escasa investigación al respecto, es difícil proponer hipótesis muy específicas, no obstante, se plantean algunas de carácter más general:

- Mayor número de SLE se asociará con el desarrollo de problemas de salud mental (i.e., interiorizados y exteriorizados) en la adolescencia.

- La valoración subjetiva del impacto de los SLE predecirá el desarrollo de sintomatología psicopatológica en mayor medida que la ocurrencia de los mismos.

- Los SLE graves o importantes (“major”) mostrarán mucha más relación con los síntomas psicopatológicos y la satisfacción vital subjetiva que los SLE leves (“minor”).

- Los SLE independientes se asociarán con los problemas interiorizados y, en menor medida con los exteriorizados.

- Los SLE dependientes se asociarán con los problemas exteriorizados y, en menor medida con los interiorizados.

- Los SLE interpersonales mostrarán una mayor relación con los síntomas psicopatológicos y la felicidad que los no interpersonales.

Una vez desarrollado un instrumento de evaluación adecuado que permita estudiar el papel de los diferentes tipos de SLE con los síntomas psicopatológicos en adolescentes, pretendemos incorporar también el papel de la personalidad. Así, en el Estudio 2 se examinará la interrelación de la personalidad y dos tipos de SLE, los dependientes y los independientes, en la manifestación de síntomas interiorizados y exteriorizados. Con base en estudios previos, se plantean las siguientes hipótesis:

- La dimensión de personalidad de neuroticismo y los SLE dependientes e independientes se asociarán con mayores problemas interiorizados.

- Las dimensiones de neuroticismo, extraversión, baja amabilidad y baja responsabilidad se asociarían con un mayor número de SLE dependientes y con mayor presencia de síntomas exteriorizados.

- Los SLE dependientes mediarán parcialmente la relación de la personalidad y la psicopatología.

- La personalidad mediará parcialmente la relación de los SLE independientes y la psicopatología.

- Finalmente, existirían efectos de interacción entre los SLE y la dimensión de personalidad de neuroticismo en la cantidad de síntomas interiorizados, especialmente la depresión.



[Estudio 1]

Recent Stressful Life Events (SLE) and Adolescent Mental Health: Initial Validation of the LEIA, a New Checklist for SLE Assessment According to Their Severity, Interpersonal, and Dependent Nature

Published article: Moya-Higueras, J., Cuevas, A., Marques-Feixa, L., Mezquita, L., Mayoral, M., Fañanás, L., Ortet, G., & Ibáñez, M. I. (2020). Recent Stressful Life Events (SLE) and Adolescent Mental Health: Initial Validation of the LEIA, a New Checklist for SLE Assessment According to Their Severity, Interpersonal, and Dependent Nature. *Assessment*, 27(8), 1777–1795. doi:10.1177/1073191118817648

Abstract

The main aim of the present study was to develop and validate a checklist for adolescents, the Life Events Inventory for Adolescents (LEIA), for screening stressful life events (SLE) of different nature (major–minor, dependent–independent, and personal–interpersonal). The LEIA was administered together with another SLE checklist (Escala de Acontecimientos Vitales [Life Events Scale], EAV), and with measures of life satisfaction and externalizing and internalizing symptoms. The results showed that the kappa and the percentage agreement reliability indices were adequate. Regarding validity evidences, the correlations found between the LEIA and the EAV ranged from .65 to .69, and between the LEIA and the psychopathological symptoms ranged from .26 to .38. Specifically, major dependent non-interpersonal SLE were the best predictors of externalizing psychopathology; while major independent non-interpersonal SLE were the best predictors of internalizing symptoms and low life satisfaction. To conclude, the LEIA could be considered an adequate checklist to screen for SLE in adolescents.

Keywords: stressful life events, dependent, interpersonal, externalizing, internalizing, life satisfaction, adolescence

Introduction

Adolescence is a key period of transition from childhood to adulthood. Adolescents have to adapt to multiple biological and physical changes that pubertal maturation involves, and they face new social challenges within the family, among their peers and at school (Crone & Dahl, 2012; Hollenstein & Loughheed, 2013). These changes lead to cognitive transformations, mood disruption, and personality changes in self-regulation, disinhibition, and conflictiveness (Denissen et al., 2013; Ibáñez et al., 2016). Therefore, adolescence has been conceptualized as a period of vulnerability during which some mental disorders present their prodromal phase (Casey et al., 2008; Patton et al., 2014; Wittchen et al., 2011). Accordingly, the prevalence of common mental disorders during adolescence tends to be high, with estimations in the range of 25% to 45% (Merikangas et al., 2011; Patton et al., 2014; Wittchen et al., 2011). Moreover, episodes of mental disorder in adolescence seem to increase the risk of disorders later, in adulthood (Clark et al., 2007; Copeland et al., 2009; Patton et al., 2014)

An important factor in the initiation and chronification of mental disorders during this sensitive developmental period is stress (Gee & Casey, 2015; Grant et al., 2004; Holder & Blaustein, 2014). It has been proposed that the experience of multiple stressors in adolescence increases the likelihood of developing psychiatric symptoms through their action on psychobiological systems involved in emotional and coping responses to threats. Such systems include the amygdala (Swartz et al., 2015), serotonergic neurotransmission (Caspi et al., 2010) and the hypothalamic-pituitary-adrenal axis (Miller et al., 2007), and the action would be in part through epigenetic mechanisms linked to them (Palma-Gudiel et al., 2015; van der Knaap et al., 2014).

Stress involves an organism's adaptation to any challenging situation or set of external demands that requires expending resources to cope with its circumstances (Monroe, 2008; Shields & Slavich, 2017). Research on stressful events has explored from extreme traumatic

experiences (Gilbert et al., 2009; Van Der Kolk et al., 2005) to mild to severe negative life incidents, or stressful life events (SLE; Grant et al., 2004; Monroe, 2008; Shields & Slavich, 2017); until minor quotidian disturbances, or daily hassels (Kanner et al., 1981; Trianes et al., 2009).

For SLE, the most common study estimating their relevance on psychopathology focuses on short-term effects of acute life events, typically a recall period of no more than 1 year, and their assessment has been performed through two main methods: interviews and checklists (Kessler, 1997; Shields & Slavich, 2017; Turner & Wheaton, 1997). Interviews are considered to be more accurate and effective in predicting outcomes than self-report checklists; but they have to be individually administered, demand much time of researchers and participants, and involve a high cost in personnel (Dohrenwend, 2006; Harkness & Monroe, 2016; Shields & Slavich, 2017; Wethington et al., 1997). Conversely, self-report checklists, demand little time of researcher and participant, are easy to administer and score, and can be administered collectively (Dohrenwend, 2006; Grant et al., 2004; Turner & Wheaton, 1997). Thus, when time and personnel are limited, such as in research involving large samples and a wide battery of tests, the checklists constitute a cost-effective tool for SLE screening (Duggal et al., 2000; Lewinsohn et al., 2003; Wagner et al., 2006).

There is compelling evidence that SLE are related to adolescent mental health (Grant et al., 2004). A meta-analysis performed by March-Llanes et al. (2017) confirmed that during adolescence, SLE were strongly associated with internalizing pathology and its symptoms (such as depression, anxiety, or somatic complaints), but also with externalizing disorders (such as attention problems, aggressive behavior, or conduct problems), both in cross-sectional and longitudinal studies. Interestingly, the authors did not find significant differences in the magnitude of these associations as a function of the assessment method, interview versus checklist, in agreement with some previous findings (Duggal et al., 2000; Lewinsohn et al., 2003; Wagner et al., 2006).

However, the role of proximal SLE in other areas is not so clear. For example, their connection with psychosis (Beards et al., 2013) or alcohol use (Veenstra et al., 2006) is far from completely consistent; and their moderator role on some mental disorders reported in gene–environment interaction studies (e.g., Caspi et al., 2003; Covault et al., 2007) has not always been replicated (Risch et al., 2009; Todkar et al., 2013). One of the possible explanations of these and other inconsistencies is the psychometric deficiencies that SLE checklists often present (Beards et al., 2013; Compas et al., 1987; Grant et al., 2004; Monroe & Reid, 2008). Thus, the use of standardized checklists with reliable scores and adequate sources or validity evidences for the assessment of SLE would increase the reliability of results, would facilitate replication and comparability of studies, and would help disentangle more specific issues regarding the association of SLE and health (Grant et al., 2004; Turner & Wheaton, 1997).

Some recommendations for increasing the psychometric quality of SLE checklists can be derived from reviews of the topic (e.g., Dohrenwend, 2006; Grant et al., 2004; Hammen, 2005; Harkness & Monroe, 2016; Kessler, 1997; Rabkin & Struening, 1976; Turner & Wheaton, 1997; Zimmerman, 1983a). A basic psychometric requirement when dealing with SLE is to report the scores' reliability properly, but most studies either do not test the reliability of the scores or use traditional reliability methodologies (such as the Cronbach alpha or test–retest coefficients) that are inadequate in the case of SLE. Measures of internal consistency are inappropriate because there is no underlying assumption that items should covary (Harkness & Monroe, 2016); whereas test–retest reliabilities of aggregated SLE do not guarantee that a same score in test and retest can be attributed to the aggregation of the same events on both occasions (Zimmerman, 1983a). A more adequate alternative is to administer the checklist at two different moments and to evaluate the appearance of each specific SLE (Turner & Wheaton, 1997) using kappa values together with the percentage of agreement (McHugh, 2012). Some validation studies of SLE checklists in adults have reported

both statistics (Gray et al., 2004), but we are not aware of any checklist for adolescents that has used this procedure.

Another important question in the assessment of SLE is how to estimate and quantify their degree of impact. The simplest and most usual way is to calculate the total number of SLE experienced. However, one problem with this procedure is that it implies that each event has the same impact potential; for example, the death of one's mother is considered to have the same potential impact as an argument with a friend (Zimmerman, 1983a). So checklists that include *weighted* SLE have been proposed as a better option (Compas et al., 1987; Kessler, 1997). The most commonly used procedures to weight the SLE in checklists are their objective and subjective weighting (Harkness & Monroe, 2016; Kessler, 1997; Turner & Wheaton, 1997). In the objective or consensual procedure, a panel of raters generates weights for each event (Holmes & Rahe, 1967); whereas in the subjective procedure, each respondent assigns a subjective weight to his or her own events (Sarason et al., 1978). Regarding the objective procedure, an important criticism is that all life events of a given type are treated as equivalent for any person (Kessler, 1997); for example, the death of an adolescent's father would have the same weight irrespective of if he lived with the child or if he abandoned the home years ago. One strategy to tackle this problem is to ask participants to rate subjectively the emotional impact each SLE had on them (Kessler, 1997; Zimmerman, 1983a). This procedure assumes that the subjective emotional reactivity to stressors, or appraisal, constitutes a more relevant risk factor for certain disorders than the mere occurrence of the stressful experience (Conway et al., 2012; Espejo et al., 2012; Holtzman et al., 2013), in accordance with cognitive theories of vulnerability to mental disorders such as depression (Alloy et al., 1999). Accordingly, several studies have reported higher associations between adverse psychological out- comes and the subjective scoring procedure than the objective weighting or the simple count procedure (Calvete et al., 2007; Espejo et al., 2012; Sarason et al., 1978);

although these findings have not always been replicated (Ferreira et al., 2012; King et al., 2017; Zimmerman, 1983b).

Finally, another important recommendation for increasing the validity evidence for an SLE assessment is to take into account different typologies of life events (Grant et al., 2004; Hammen, 2005; Vrshek-Schallhorn et al., 2015). A relevant distinction between SLE is their dependent versus independent nature; which refers to those life events that occur (in part) because of a person's own characteristics or behaviors (dependent or controllable) and events whose occurrence is most likely unrelated to the respondent's own behavior (independent or uncontrollable). It has been found that dependent SLE have a substantially higher heritability estimate than independent SLE in adult and adolescent samples (Johnson et al., 2013; Kendler & Baker, 2007). This indicates that genetical-based personal characteristics may be involved in the seeking out, creation or evocation of dependent SLE. In addition, the interpersonal dimension (those that directly affect relationships with others vs. those that are experienced mainly by the respondent) also seems to be significant in SLE analysis, especially with regard to certain mental disorders such as depression (Hammen, 2005). Last, another relevant SLE typology is their moderate-to-severe negative impact (*major* SLE) versus those with less than moderate impact (*minor* SLE) (Compas, 1987; Kendler et al., 1997).

Despite the importance of systematically examining which types of life events may be more relevant for different mental health outcomes, research on this topic is relatively scarce and has almost exclusively focused on the dependent interpersonal SLE combination. Dependent interpersonal SLE are consistently associated with depressive symptoms and disorders in adolescents (Cohen et al., 2013; Espina & Calvete, 2017; Flynn et al., 2010; Flynn & Rudolph, 2011; Hankin et al., 2010; Krackow & Rudolph, 2008; Rudolph et al., 2000; Shapero et al., 2013); and, according to the *stress generation theory* (Hammen, 1991, 2005), they are predicted by prior depression (Conway et al., 2012; Espina & Calvete, 2017; Hamilton et al., 2014; Harkness & Stewart, 2009). However, research examining the role of other types

of SLE on mental health outcomes is almost nonexistent. One noteworthy exception is the work of Vrshek-Schallhorn et al. (2015), which examined the predictive role of different types of SLE on the onset of depression disorders in emerging adulthood, categorizing them as a function of their interpersonal–non-interpersonal, dependent–independent, major–minor, and chronic–episodic characteristics. The main results of that study indicated that major interpersonal dependent and independent SLE, together with chronic interpersonal SLE, predicted the onset of depression. As far as we know, the issue of whether this pattern of results is replicated in other samples, in other lifespan stages such as adolescence, or in other mental health outcomes beyond depression, has not been explored.

Hence, the main aim of the present study was to develop a new SLE checklist, the Life Events Inventory for Adolescents (LEIA), following the recommendations afore-mentioned. The LEIA is intended to be a suitable screening instrument for large-scale research that offers advantages over other SLE checklists for adolescents. Past checklists were developed to give two main scores: (a) the aggregated occurrence of the SLE and (b) an objective or a subjective score of the impact of each SLE, but not both of them. The LEIA allows the assessment of the occurrence of SLE and their subjective impact for each adolescent, and it also generates an estimate of objective severity based on the mean impact of each event in the sample. These different scoring procedures may allow empirical testing of which SLE scoring method better predicts different mental health outcomes in adolescence. In addition, past checklists did not categorize properly the SLE according to their interpersonal–non-interpersonal and dependent–independent nature. The LEIA gives open information about this classification, thereby allowing us to replicate in adolescence the findings of Vrshek-Schallhorn et al. (2015), and to extend the exploration of the differential impact that these types of SLE may have on other mental health outcomes. To this end, here we examine their associations with internalizing symptoms such as depression, anxiety, and somatization; with externalizing symptoms such as aggressivity, attention problems and antisocial behavior; and with subjective life satisfaction.

Furthermore, we examine convergent validity by means of its association with another checklist that has been validated in Spanish adolescents: the Escala de Acontecimientos Vitales [Life Events Scale] (EAV; Mardomingo & González-Garrido, 1990). Finally, we estimate the reliability of the LEIA's scores using the percentage of congruence between test and retest, and by estimating the kappa and the linear weighted kappa statistics (Fleiss et al., 2003). To the best of our knowledge, no previous SLE validation study has used this methodology to examine the reliability in the reporting of both the occurrence of SLE and their subjective impact.

Participants

Of the 1,106 students invited to participate from two public high schools in the urban area of Castellón de la Plana, a city in eastern Spain, 835 returned signed written parental consent. Of these, 51 participants did not attend the two assessment sessions or did not respond to all the questionnaires. Thus, the final sample consisted on 784 adolescents (49.9% were girls), and the mean age of the sample was 14.31 years ($SD = 1.59$; age range = 12-17 years old). Moreover, 27.8% were 8th year students (48.1% girls, mean age = 12.59, $SD = .70$); 22% were 9th year students (52.6% girls, mean age = 13.68, $SD = .83$); 19.2% were 10th year students (43.6% girls, mean age = 14.62, $SD = .76$); 16.6% were 11th year students (50.4% girls, mean age = 15.70, $SD = .83$); 2.8% were vocational training students (60.9% girls, mean age = 16.61, $SD = .66$); and 11.6% were students of further education, preparing for university (56.7% girls, mean age = 16.41, $SD = .63$).

Around half of their fathers and mothers (56.3% and 55.9%, respectively) had successfully completed high school, but not continued on to higher education; whereas 26.3% of the fathers and 28.9% of the mothers had a university degree. The mean income was equivalent to that of a middle-class Spanish family and 24.1% of the sample were not from Spain (all of them showed an appropriate level of Spanish according to teacher's reports). All the questionnaires were administered in Spanish.

The LEIA checklist was readministered 1 month later, to determine the test–retest reliability in a subsample of 365 adolescents. This subsample was sociodemographically equivalent to the subgroup of adolescents who did not participate in the retest, age: $t(782) = 1.01$, $p = .31$; gender: $t(782) = 1.04$, $p = .30$; estimated family income: $t(782) = -.88$, $p = .38$; studies of the mother: $t(782) = -1.66$, $p = .10$; academic marks: $t(782) = .50$, $p = .62$, except for the level of education of the father, which was lower in the adolescents who did not participate

in the retest, $t(782) = -5.30, p = .00$. Some significant differences were found between the subsamples in health outcome scales and some LEIA scores, although the effect size of these differences was trivial or very small (see Table 5). As this subsample was only used to assess the test–retest reliability, these differences should not affect the results.

Instruments

Life Events Inventory for Adolescents. This instrument for 12 to 17 years old adolescents includes 75 SLE, plus an open-ended question. Specific items were created via inspection of some of the most used SLE instruments (most of them with a validation study in Spain or developed for Spanish populations), and their formulation was adapted to adolescents and updated to contemporary language when necessary: Social Readjustment Rating Scale (SRRS; Holmes & Rahe, 1967; Spanish adaptation of González de Rivera & Morera Fumero, 1983), Life Experiences Survey (LES; Sarason et al., 1978), Adolescent Life Change Event Scale (ALCES; Spanish adaptation of Voltas et al., 2015), Life Events Scale for Students (LESS; Clements & Turpin, 1996), Life Events Questionnaire (LEQ; Newcomb et al., 1981), List of Threatening Experiences Questionnaire (LTE-Q; Brugha & Cragg, 1990; Spanish adaptation of Motrico et al., 2013), Life Events Checklist (LEC; Johnson & McCutcheon, 1980), EAV (Mardomingo & González-Garrido, 1990), Inventario de Acontecimientos Vitales Estresantes [Stressful Life Events Inventory] (IAVE; Oliva et al., 2008) and Cuestionario de Sucesos Vitales [Questionnaire of Life Events] (CSV; Sandín & Chorot, 2017). As positive desirable SLE tend to show nonsignificant associations with mental disorders (Kessler, 1997; Sarason et al., 1978), and following the recommendations in Turner and Wheaton (1997), only negative life events were included. In addition, other SLE traditionally not assessed in SLE checklists were also incorporated, such as items related to bullying victimization. The respondents had to mark whether each SLE had occurred during the previous 12 months, in line with most of the checklists reviewed. If an SLE was experienced, then participants had to rate the magnitude of the negative impact, on a 5-point Likert-type scale (0 = nothing to 4 = extremely) with a

pictographic aid (a representation of gradually sadder faces). The Spanish full version of the instrument is showed in the supplemental material (available in the online version of the article).

Three different principal scores were calculated with the LEIA. First, a quantity score was calculated by adding up the SLE that occurred for the participants (*LEIA quantity*). Second, a subjective weighted score was obtained by adding the subjective negative impact of each SLE (*LEIA subjective severity*). Last, an “objective” weighted score was derived by summing each SLE experienced weighted by the mean of the subjective negative impact for that SLE in the sample (*LEIA objective severity*). The mean impact for each event is presented in the Table 6.

To determine SLE typologies, 10 researchers, experts in the field, rated each life event in three dimensions. First, using a 5-point Likert-type scale (0 = *completely independent* to 4 = *completely dependent*), they estimated whether a life event was more or less dependent of the behavior of the respondent. When a life event had a mean score equal to or greater than 2 in this dependent–independent dimension, it was considered dependent. Second, the raters decided the social nature of the life event (0 = *non-interpersonal* to 1 = *interpersonal*). When a life event had a mean score equal or greater than .5 in the social dimension, it was considered interpersonal. These procedures were similar to those usually applied in studies that explore the combination of dependent interpersonal SLE (Krackow & Rudolph, 2008). Last, we used the mean impact ratings of the adolescents to estimate the major versus minor category. When a life event had a mean score lower than 2.5, it was designated as minor ($n = 9$), whereas SLE scoring greater than were coded as major (severe and moderate; $n = 66$).

The cut-off criterion of 2.5 follows the procedure used in Vrshek-Schallhorn et al. (2015). Due to the small number of minor events, and the fact that minor SLE were not associated with mental health outcomes when controlling for major events (see Results section), we decided to combine only major events with the dependent versus independent and interpersonal versus

non-interpersonal domains. Thus, a total of 37 life events were classified as major independent interpersonal, 5 were considered major independent non-interpersonal, 16 were considered major dependent interpersonal, and 8 were major dependent non-interpersonal (see Table 6).

Life Events Scale (Mardomingo & González-Garrido, 1990). The EAV is an SLE scale frequently used in clinical psychology and psychiatric settings in Spain. This instrument was created following the SRRS of Holmes and Rahe (1967) and consists of 47 SLE. Participants indicate whether the life event had occurred during the previous 12 months. The outcome of the checklist results from the weighted sum of each SLE experienced, multiplied by its life change unit score (*EAV total score*).

Assessment System of Children and Adolescents (SENA; Sánchez-Sánchez et al., 2016). The SENA is a self-report instrument for assessing some of the most common psychopathological problems that occur during adolescence. Participants indicate the frequency of the appearance of different behavior descriptions on a 5-point Likert-type scale (0 = never or almost never to 4 = always or almost always). For the present research, only some SENA scales were used: depression (14 items), anxiety (10 items), somatic complaints (9 items), aggressive behavior (7 items), attention problems (10 items), and antisocial behavior (8 items). We also obtained the internalizing and externalizing spectra scores by summing the scores of the first three scales and the second three, respectively. The reliability scores obtained in present sample were adequate (see Table 5).

Student's Life Satisfaction Scale (SLSS; Huebner, 1991; Spanish Adaptation of Galindez & Casas, 2010). The SLSS asks the extent to which the adolescents agree with seven general statements about their life, on a 6-point Likert-type scale (0 = strongly disagree to 5 = strongly agree). A total score that estimates global life satisfaction, a core component of

subjective well-being or happiness, is calculated by summing the responses. SLSS alpha scores' reliability in our sample was adequate (see Table 5), and similar to the original coefficient.

Procedure

This study was part of broader research into psychosocial risk and protective factors affecting mental health during adolescence. After obtaining the approval of the two school boards, research leaders GO and MI presented the study to the teachers and parents at the first meeting of the school year. In this meeting, consent information documents were handed out to parents or legal guardians. Once the consent documents were returned, trained research assistants administered, in groups, in the classrooms, a sociodemographic survey together with the rest of the battery of questionnaires in two sessions separated by 1 week. Research assistants gave detailed instructions to the students, highlighted the confidentiality of the data and the importance of giving honest responses, and helped the students whenever necessary. The questionnaires were voluntarily completed by those students authorized by their parents or legal guardians. The LEIA checklist was readministered together with the EAV 1 month later, to study the test–retest reliability and their convergent validity in a subsample of students.

Ethics

This research was approved by the ethical committee from the Universitat Jaume I, and authorized by the school board of the participating high schools as well as by the regional Valencian authorities. The parents or legal guardians of the participants gave written informed consent in accordance with the Declaration of Helsinki.

Analyses

The test–retest reliability of the total score was assessed by the percentage of agreement between the two occasions and by means of the kappa coefficient, in accordance with Landis and Koch (1977). The reliability of the weighted score was calculated by the linear weighted

kappa statistic (Fleiss et al., 2003), which assumes that categories are ordered (i.e., from low to high impact) and it accounts for how far apart the two ratings are.

The convergent validity of the LEIA was assessed using Pearson correlations. Also, to compare the magnitude of the correlations between the three LEIA scores (SLE quantity, SLE subjective severity, and SLE objective severity), we performed Williams–Hotelling *t* tests (Williams, 1959). Last, the predictive power of the four combinations of life events assessed using the LEIA on different mental health outcomes was estimated by performing hierarchical linear regression analysis in two steps. The first included age and gender, while the second consisted of the SLE types estimated with each of the three scoring methods.

Descriptives

Descriptives and gender differences for age and the main outcomes of the study can be seen in Table 5. Boys and girls did not differ in the occurrence of SLE, or in the objective LEIA scores, but they presented small differences in subjective and non-interpersonal LEIA scores. In reference to mental health outcomes, boys showed more aggressive and antisocial symptoms than girls, although the effect sizes were small. Conversely, girls showed more internalizing symptoms at the spectrum level and at the scale of each symptom, with a medium effect size. This pattern of gender differences in psychopathological symptoms is similar to what could be expected from prevalence studies during adolescence (Merikangas et al., 2011; Ormel et al., 2015).

Table 5.*Descriptives of age and the main outcomes of the study.*

	α	Total Sample (n=784)		Boys (n=393)		Girls (n=391)		t	d	Subsample 1 retest (n=365; 48.2% girls)		t	d
		Mean	Dt	Mean	Dt	Mean	Dt			Mean	Dt		
Age	-	14.31	1.59	14.32	1.61	14.30	1.57	.17	.01	14.24	1.62	1.01	.07
LEIA Q	-	9.36	6.77	9.18	6.56	9.55	6.98	-.88	.06	8.89	6.61	3.05**	.22
LEIA SS	-	28.61	24.00	26.37	20.34	30.87	27.00	-2.67**	.19	23.74	21.67	-1.37	.10
LEIA OS	-	28.50	20.34	27.74	19.61	29.26	21.05	-1.15	.08	27.08	19.80	3.09**	.22
SLE Q													
Independent interpersonal	-	4.15	3.46	4.05	3.37	4.25	3.55	-.89	.06	4.09	3.49	2.12*	.15
Independent non-interpersonal	-	1.03	1.00	.91	.95	1.14	1.04	-3.24**	.23	1.02	.95	1.23	.09
Dependent non-interpersonal	-	1.47	1.44	1.68	1.53	1.26	1.32	3.85***	.28	1.42	1.38	1.46	.11
Dependent interpersonal	-	2.58	2.65	2.47	2.60	2.70	2.69	-1.29	.09	2.33	2.60	2.85**	.21
SLE SS													
Independent interpersonal	-	12.46	11.76	11.43	10.09	13.49	13.17	-2.44*	.18	10.75	11.31	-2.02*	.15
Independent non-interpersonal	-	3.23	3.59	2.69	3.01	3.76	4.02	-4.20***	.30	2.72	3.16	-1.74	.12
Dependent non-interpersonal	-	4.51	4.99	4.85	4.88	4.16	5.08	1.77	.13	3.75	4.24	-1.60	.12
Dependent interpersonal	-	7.92	9.09	7.02	7.96	8.83	10.03	-2.80**	.20	6.42	8.40	-.75	.05
AGG	.76	2.97	3.77	3.49	4.24	2.45	3.16	3.88***	.28	2.50	3.52	2.28*	.16
ATE	.89	14.04	8.67	13.67	8.58	14.41	8.74	-1.17	.08	12.96	8.63	3.04**	.22
ANT	.75	2.54	4.08	3.14	4.90	1.94	2.92	4.12***	.30	2.10	3.70	2.58*	.18
DEP	.91	10.92	9.74	8.87	7.75	13.03	11.05	-6.06***	.44	10.00	9.86	2.37*	.17
ANX	.89	14.38	9.08	11.33	7.80	17.47	9.25	-9.98***	.72	13.49	9.07	2.42*	.17
SOM	.79	10.20	6.12	8.64	7.75	11.78	6.30	-7.41***	.53	9.64	6.21	2.25*	.16
Intern.	.94	35.26	22.25	28.69	18.45	42.13	23.79	-8.67***	.63	33.23	22.51	2.39*	.17
Extern.	.89	19.31	13.28	20.03	14.50	18.59	11.90	1.50	.11	17.79	13.02	2.99**	.22
Life satisfaction	.77	22.45	6.21	23.39	5.56	21.51	6.68	4.24***	.31	23.00	6.43	-2.25*	.16

Note. α = Chronbach's alpha; t = Student's t; d = Cohen's d for effect size (d < 0.20 = trivial effect size; 0.20 < d < 0.50 = small effect size; 0.50 < d < 0.80 = medium effect size; d > 0.80 = large effect size). * p < .05 ** p < .01 *** p < .001. Q: LEIA SLE quantity; SS: LEIA SLE subjective severity; OS: LEIA SLE objective severity; AGG: Aggression; ATE: Attention problems; ANT: Antisocial behavior; DEP: Depression; ANX: Anxiety; SOM: Somatic complaints; Extern.: externalizing spectrum; Intern.: Internalizing spectrum

Reliability

Table 6 shows the percentage of agreement between the two administration occasions and the kappa statistics for each SLE (Table 6). The median percentage of agreement was 82.04% (79.67% of SLE had an agreement greater than 90%). The median kappa value for the occurrence of the SLE was .45 (61.97% of the items showed a moderate to almost perfect kappa value). However, one item (Item 25; see Table 6) showed very poor kappa values, so this SLE was not selected for posterior statistical analysis. Applying the Landis and Koch (1977) criteria, globally, the strength of agreement of the LEIA could be considered moderate. Last, the weighted kappa statistic also revealed adequate levels for the emotional impact assessment, although the values were slightly lower than the occurrence score.

Table 6.*Test-retest reliability of the occurrence and impact of stressful life events over one month.*

	Type	Items	% of people affected	Percentage Agreement	Kappa	Weighted Kappa	Mean impact (SD)
1a	IIM	has your father died?	.9	99.18	.57***	.21	3.14 (1.54)
1b	IIM	has your mother died?	.3	99.73	NA	NA	5.00 (0.00)
1c	IIM	have any of your siblings died?	1.1	98.63	.44***	.30	3.78 (1.30)
1d	IIM	have any of your close relatives died?	31.8	82.74	.59***	.55	4.20 (1.00)
1e	IIM	have any of your close friends died?	5.5	95.34	.58***	.58	4.26 (0.88)
2a	INM	have you suffered from any serious physical illness, accident or assault?	12.4	90.36	.43***	.35	3.02 (1.11)
2b	IIM	has your father suffered from any serious physical illness, accident or assault?	9.8	91.74	.21***	.16	3.22 (1.27)
2c	IIM	has your mother suffered from any serious physical illness, accident or assault?	11.9	92.31	.52***	.48	3.62 (1.21)
2d	IIM	has any of your siblings suffered from any serious physical illness, accident or assault?	8	95.60	.37***	.24	3.43 (1.40)
2e	IIM	has any of your close relatives suffered from any serious physical illness, accident or assault?	26	77.81	.34***	.31	3.74 (1.15)
2f	IIM	has any close friend suffered from any serious physical illness, accident or assault?	10.2	92.56	.27***	.21	3.00 (1.36)
3a	DNM	have you suffered from any psychological or psychiatric problem (excluding alcohol or drug-related problems)?	8	96.15	.65***	.62	3.54 (1.35)
3b	IIM	has your father suffered from any psychological or psychiatric problem (excluding alcohol or drug-related problems)?	2.4	98.63	.44***	.21	3.42 (1.31)
3c	IIM	has your mother suffered from any psychological or psychiatric problem (excluding alcohol or drug-related problems)?	3.2	96.71	.56***	.51	3.60 (1.19)
3d	IIM	have any of your siblings suffered from any psychological or psychiatric problem (excluding alcohol or drug-related problems)?	2.4	98.63	.54***	.42	3.05 (1.43)
3e	IIM	have any of your close relatives suffered from any psychological or psychiatric problem (excluding alcohol or drug-related problems)?	8.4	93.15	.39***	.30	3.24 (1.34)
3f	IIM	have any of your close friends suffered from any psychological or psychiatric problem (excluding alcohol or drug-related problems)?	7	95.07	.16***	.16	3.09 (1.18)
4a	DNM	have you had alcohol or drug-related problems?	6.8	97.53	.46***	.43	2.49 (1.23)
4b	IIM	has your father had alcohol or drug-related problems?	4.2	97.26	.53***	.53	3.36 (1.30)
4c	IIM	has your mother had alcohol or drug-related problems?	2.2	99.45	.80***	.69	3.18 (1.43)
4d	IIM	have any of your siblings had alcohol or drug-related problems?	3.4	97.80	.32***	.16	2.63 (1.28)
4e	IIM	have any of your close relatives had alcohol or drug-related problems?	8.2	91.78	.38***	.26	2.91 (1.32)
5a	DNM	have you had legal problems?	7.7	96.16	.61***	.46	2.75 (1.36)
5b	IIM	has your father had legal problems?	4.7	96.70	.52***	.46	2.78 (1.40)

5c	IIM	has your mother had legal problems?	1.9	98.37	.39***	.45	2.87 (1.46)
5d	IIM	have any of your siblings had legal problems?	3.1	98.35	.66***	.57	2.96 (1.52)
5e	IIM	have any of your close relatives had legal problems?	5.4	95.62	.41***	.39	2.69 (1.32)
5f	IIM	have any of your close friends had legal problems?	7.4	95.61	.51***	.27	2.84 (1.41)
6a	DIM	have you had any arguments with your father?	24.4	85.48	.50***	.41	3.14 (1.23)
6b	DIM	have you had any arguments with your mother?	28.8	81.10	.46***	.42	3.15 (1.20)
6c	DIM	have you had any arguments with any of your siblings?	28.7	80.82	.38***	.33	2.98 (1.35)
6d	DIM	have you had any arguments with any of your close friends?	25.5	81.87	.31***	.24	2.98 (1.30)
6e	DIM	have you had any arguments with your boyfriend/girlfriend?	10.7	92.86	.59***	.51	3.46 (1.30)
6f	DIM	have you had any arguments with your teacher?	12.1	90.14	.45***	.32	2.56 (1.29)
6g	DIM	have you had any arguments with any of your classmates?	26	75.82	.23***	.24	2.70 (1.25)
7a	DIM	have you had a fight with your father?	2.7	95.34	.34***	.37	3.62 (1.20)
7b	DIM	have you had a fight with your mother?	.8	97.81	.19***	.10	2.55 (1.19)
7c	DIM	have you had a fight with any of your siblings?	14.7	88.46	.31***	.27	2.90 (1.30)
7d	DIM	have you had a fight with any of your close friends?	8.4	92.58	.31***	.30	3.08 (1.32)
7e	DIM	have you had a fight with your boyfriend/girlfriend?	1.8	98.08	.21***	.09	2.64 (1.39)
7f	DIM	have you had a fight with one of your teachers?	.6	98.36	.24***	.33	2.80 (1.64)
7g	DIM	have you had a fight with any of your classmates?	10.3	91.51	.33***	.23	2.68 (1.16)
8a	IIM	has your father left home?	6.3	96.16	.59***	.47	3.24 (1.51)
8b	IIM	has your mother left home?	1	98.90	.28***	.12	3.00 (1.77)
8c	IIM	have any of your siblings left home?	5.2	95.07	.55***	.51	2.98 (1.41)
9	IIM	have your parents got divorced or separated?	19.1	91.79	.66***	.64	3.27 (1.50)
10	IIM	have your parents had a heated argument?	33.2	82.14	.49***	.45	3.34 (1.31)
11	IIM	do you live with your father or mother's new partner?	11.7	94.25	.68***	.65	2.53 (1.33)
12	IIM	do you live with of your father or mother's new partner's children?	4.7	96.71	.58***	.58	2.16 (1.21)
13	IIM	has a new sibling been born?	3.7	95.89	.46***	.38	2.03 (0.94)
14a	IIM	has your father lost his job?	9.6	90.68	.45***	.43	3.24 (1.27)
14b	IIM	has your mother lost her job?	10.1	91.23	.47***	.46	3.22 (1.30)
14c	IIM	have any of your siblings lost their job?	2.6	97.26	.36***	.32	2.70 (1.26)
14d	IIM	have any of your close relatives lost their job?	14.2	83.84	.32***	.28	2.69 (1.25)
15a	IIM	has your father changed jobs?	13.4	85.16	.32***	.23	2.04 (1.03)
15b	IIM	has your mother changed jobs?	13.1	92.33	.57***	.54	2.05 (1.04)
15c	IIM	have any of your siblings changed jobs?	5.2	95.89	.46***	.43	1.71 (1.08)
15d	IIM	have any of your close relatives changed jobs?	13.8	87.67	.43***	.32	1.99 (1.03)
16	INM	have you had serious financial problems at home?	16.2	87.67	.54***	.49	3.13 (1.25)
17	INM	have you changed school?	21.3	85.48	.47***	.43	2.80 (1.35)
18	DNM	have your school marks dropped significantly?	46.4	76.99	.52***	.47	3.41 (1.30)
19	DNM	have you gone back a year at school?	27.2	90.96	.75***	.61	3.39 (1.38)
20	DNM	have you been suspended from the classroom?	34.4	83.01	.62***	.49	2.54 (1.19)
21	DNM	have you been expelled from school?	5	96.99	.63***	.45	2.92 (1.56)
22	IIM	has a classmate picked on you, insulted you or made fun of you?	30.6	76.92	.37***	.33	2.78 (1.36)

23	IIM	has a classmate threatened you or hit you?	10.2	90.96	.25***	.28	2.84 (1.62)
24	IIM	have your classmates excluded you from any activity?	11.6	89.32	.31***	.28	2.77 (1.31)
25	IIM	has a classmate forced you to do things that you did not want to (give them your money, your packed lunch...)?	0.8	97.26	-.01	-.01	3.5 (1.43)
26	INM	have you felt bad about your physical appearance?	31.6	79.73	.48***	.52	3.23 (1.30)
27	DNM	have you run away from home?	8.2	95.89	.63***	.49	2.67 (1.32)
28	INM	have you lost anything of personal value or has it been stolen?	18.2	84.11	.37***	.36	3.48 (1.32)
29	DIM	have you lost a friendship that was important to you?	34.9	82.04	.56***	.49	3.51 (1.33)
30	DIM	have you had a break up?	20.8	90.03	.65***	.58	3.19 (1.44)
31	INm	have you had to move to a relative's home?	8.5	93.97	.39***	.34	2.30 (1.29)
32	IIm	have any of your relatives had to move to your home?	13	89.50	.37***	.38	2.31 (1.20)

Note. Strength of agreement using the Kappa statistic (Landis & Koch, 1977): <.00 = poor; .00-.20 = slight; .21-.40 = fair; .41-.60 = moderate; .61-.80 = substantial; .81-1.00 = almost perfect. SLE: Stressful Life Events. NA: not applicable because the variable was a constant. II = independent interpersonal; IN = Independent non-interpersonal; DI = Dependent interpersonal; DN = Dependent non-interpersonal. M: Major events; m= minor events.

Validity

The correlations of the LEIA scores with the EAV and with mental health outcomes can be seen in Table 7. In brief, LEIA total scores presented high to very high correlations with the EAV (from .65 to .69), indicating good convergent validity.

In addition, and as expected, experiencing more SLE was associated with more internalizing and externalizing symptoms, as well as to a lower well-being. However, certain scoring procedures presented slightly higher correlations with mental health outcomes than others. According to the Williams–Hotelling tests for comparing pairs of correlations, the correlations found with the LEIA subjective severity score were significantly higher than the LEIA quantity for internalizing scales, except for depression, $t_{\text{SOM}}(781) = -2.19, p = .029$; $t_{\text{ANX}}(781) = -2.21, p = .027$; $t_{\text{internalizing}}(781) = -2.25, p = .025$.

Meanwhile, the LEIA quantity score tended to be higher than the LEIA subjective severity score for externalizing and aggressivity scales, $t_{\text{AGG}}(781) = 2.20, p = .028$; $t_{\text{externalizing}}(781) = 2.26, p = .024$. No differences between scores existed in life satisfaction, except for a higher correlation with the LEIA subjective severity score than the LEIA quantity score in major dependent non-interpersonal SLE, $t_{\text{life satisfaction}}(781) = 2.04, p = .04$.

Table 7.

Correlations between stressful life events measures from the LEIA with the EAV, symptom and life satisfaction measures.

		EAV total score (n=365)	DEP.	ANX.	SOM.	AGG.	ATE.	ANT.	Extern.	Intern.	Life satisfaction
LEIA	quantity (Q)	.69	.34	.29	.26	.31	.29	.35	.38	.33	-.34
	subjective severity (SS)	.65	.36	.32	.29	.28	.27	.33	.35	.36	-.34
	objective severity (OS)	.68	.34	.30	.27	.31	.29	.35	.37	.34	-.35
Independent interpersonal SLE	quantity (Q)	.62	.25	.22	.18	.19	.16	.19	.21	.25	-.24
	subjective severity (SS)	.58	.27	.26	.23	.19	.16	.18	.21	.28	-.23
	objective severity (OS)	.61	.25	.23	.18	.19	.16	.20	.21	.25	-.24
Independent non-interpersonal SLE	quantity (Q)	.46	.34	.33	.27	.20	.20	.21	.23	.35	-.32
	subjective severity (SS)	.48	.40	.37	.32	.22	.22	.22	.25	.41	-.34
	objective severity (OS)	.46	.34	.34	.27	.20	.20	.21	.23	.35	-.32
Dependent non-interpersonal SLE	quantity (Q)	.58	.22	.09	.16	.34	.35	.47	.46	.18	-.22
	subjective severity (SS)	.55	.25	.14	.19	.33	.31	.44	.43	.22	-.25
	objective severity (OS)	.57	.22	.10	.17	.33	.35	.45	.45	.19	-.23
Dependent interpersonal SLE	quantity (Q)	.51	.30	.26	.24	.29	.25	.31	.34	.30	-.30
	subjective severity (SS)	.49	.32	.29	.26	.26	.22	.28	.30	.33	-.31
	objective severity (OS)	.51	.30	.26	.24	.28	.25	.30	.34	.30	-.30
Severity	Major SLE (Q)	.70	.37	.31	.29	.34	.31	.38	.40	.36	-.34
	Major SLE (SS)	.67	.39	.34	.32	.32	.28	.35	.37	.39	-.34
	Minor SLE (Q)	.41	.07	.04	.03	.11	.05	.06	.09	.05	-.12
	Minor SLE (SS)	.41	.11	.09	.09	.09	.05	.08	.09	.11	-.12

Note. All correlations > .07 were significant at the .001 level; AGG: Aggression; ATE: Attention problems; ANT: Antisocial behavior; DEP: Depression; ANX: Anxiety; SOM: Somatic complaints; Extern.: externalizing spectrum; Intern.: Internalizing spectrum. All correlations were significant at $p < 0.05$. Minor SLE (Q) and Minor SLE (SS) were not significantly correlated to any outcome when controlled by Major SLE.

In addition, when we divided the SLE into minor versus major, major events were significantly more closely related to mental health outcomes than minor SLE. Indeed, minor SLE were not predictive of any outcome when they were controlled for major SLE (data not presented but available on request from the corresponding author).

Finally, a regression analysis was performed on each mental health outcome to test the role of the four types of SLE on mental health outcomes, controlling for age and gender as well as for the intercorrelations between SLE types.

Initially, major independent interpersonal SLE did not predict any psychopathological outcome (data not presented but available on request from the corresponding author). However, most research on SLE has focused on this kind of events (e.g., death of parents, health problems of relatives, parental divorce, etc.). On closer post hoc inspection, regressing each major independent interpersonal SLE on all mental health outcomes, this detailed examination revealed that Item 10 (*have your parents had a heated argument*), and those SLE related to bullying (Items 22 to 24) were predictive of depression, anxiety, somatization, and internalizing symptoms (data not presented but available on request from the corresponding author). Consequently, we decided to subdivide major independent interpersonal events into two categories, one including SLE concerning bullying victimization, and the other with the rest of the major independent interpersonal events.

As can be seen in Table 8, the percentage of variance explained by the SLE for specific psychopathological symptoms ranged from 11% for somatic symptoms to 20% for depression symptoms and antisocial behavior. The main type of SLE that predicted the internalizing scales was major independent non-interpersonal SLE. In addition, major independent interpersonal SLE related to bullying victimization and, to a lesser extent, major dependent interpersonal SLE, also predicted internalizing behavior. Regarding the externalizing symptoms, major dependent SLE, both non-interpersonal and interpersonal, were significant predictors, together

with major independent non-interpersonal SLE. Life satisfaction presented a similar but inverse pattern of indicators to that of internalizing symptoms, with major independent non-interpersonal SLE, followed by major dependent interpersonal SLE and by major independent interpersonal SLE related to bullying victimization as predictors.

Table 8.

Regression analyses with types of life events as independent variables and psychopathologic symptoms and life satisfaction as dependent variables.

		DEP.		ANX.		SOM.	
		β	ΔR^2	β	ΔR^2	β	ΔR^2
		Q/SS/OS	Q/SS/OS	Q/SS/OS	Q/SS/OS	Q/SS/OS	Q/SS/OS
	Age	.12		.17		.10	
	Gender	.22	.06	.35	.15	.25	.07
Major independent interpersonal SLE	Victimization	.19/.20/.18	.17/.20/.17	.12/.12/.12	.11/.12/.11	.12/.12/.12	.10/.11/.10
	Others	-04/-.09/-.04		.04/.01/.04		-.03/-.04/-.03	
	Major independent non-interpersonal SLE	.20/.25/.21		.19/.22/.19		.15/.19/.16	
	Major dependent non-interpersonal SLE	.10/.09/.11		-.06/-.05/-.05		.08/.07/.09	
	Major dependent interpersonal SLE	.13/.14/.13		.13/.13/.12		.12/.11/.11	

		AGG.		ATE.		ANT.	
		β	ΔR^2	β	ΔR^2	β	ΔR^2
		Q/SS/OS	Q/SS/OS	Q/SS/OS	Q/SS/OS	Q/SS/OS	Q/SS/OS
	Age	.07		.16		.16	
	Gender	-.13	.02	.03	.03	-.13	.04
Major independent interpersonal SLE	Victimization	.06/.03/.06	.15/.14/.15	.01/-.02/.01	.13/.10/.13	-.05/-.08/-.05	.20/.19/.19
	Others	-.07/-.04/-.06		-.02/-.01/-.02		-.01/.01/.01	
	Major independent non-interpersonal SLE	.12/.14/.12		.09/.11/.09		.10/.10/.10	
	Major dependent non-interpersonal SLE	.25/.25/.24		.30/.25/.29		.37/.36/.35	
	Major dependent interpersonal SLE	.16/.11/.15		.09/.06/.09		.13/.10/.13	

		Intern.		Extern.		Life satisfaction	
		β	ΔR^2	β	ΔR^2	β	ΔR^2
		Q/SS/OS	Q/SS/OS	Q/SS/OS	Q/SS/OS	Q/SS/OS	Q/SS/OS
	Age	.15		.18		-.20	
	Gender	.30	.11	-.06	.04	-.16	.07
Major independent interpersonal SLE	Victimization	.17/.17/.16	.16/.18/.16	.01/-.02/.01	.22/.19/.21	-.09/-.07/-.08	.12/.12/.12
	Others	-.01/-.05/-.01		-.05/-.03/-.05		-.01/.03/-.01	
Major independent non-interpersonal SLE		.20/.24/.21		.10/.12/.11		-.19/-.22/-.19	
Major dependent non-interpersonal SLE		.05/.05/.06		.38/.35/.36		-.04/-.04/-.05	
Major dependent interpersonal SLE		.14/.14/.14		.15/.11/.15		-.15/-.15/-.14	

Note. Bold: significant associations at the .01 level; Italics: significant associations at the .05 level; AGG: Aggression; ATE: Attention problems; ANT: Antisocial behavior; DEP: Depression; ANX: Anxiety; SOM: Somatic complaints; Extern.: externalizing spectrum; Intern.: Internalizing spectrum; Q: LEIA SLE quantity; SS: LEIA SLE subjective severity; OS: LEIA SLE objective severity

Discussion

The main aim of the present study was to develop a sound psychometric checklist, the LEIA, to assess SLE in Spanish adolescents, following the main recommendations of different reviews of the topic (Compas, 1987; Dohrenwend, 2006; Grant et al., 2004; Hammen, 2005; Harkness & Monroe, 2016; Kessler, 1997; Rabkin & Struening, 1976; Turner & Wheaton, 1997; Zimmerman, 1983a). The present research found that the LEIA is adequate for research, and could also be useful in clinical settings (although more research is needed). In relation to the reliability of the scores, more than 60% of the items presented a moderate to almost perfect kappa and weighted kappa statistic (Landis & Koch, 1977), while most SLE showed levels of agreement higher than 90%. Thus, and interpreting the results as a whole, the scores of the LEIA showed an adequate level of reliability.

However, one item presented very poor kappa statistics (Item 25), although it also showed elevated agreement (98.90%). This could be a good example of how the agreement coefficient tends to overestimate interrater reliability, whereas the kappa statistic tends to underestimate interrater reliability, as noted by McHugh (2012). This kind of results are often found when a life event affects a very low percentage of people (Gray et al., 2004), as is the case here (Item 25 affected less than 0.8% of the sample in the retest subsample at T1). Another possible reason for this low kappa reliability could be the intracategory variability (Dohrenwend, 2006). This is a typical problem for checklists and is related to how the respondent understands the description of each item; it especially affects items that are formulated in a too general or somewhat ambiguous manner. Probably, Item 25, “has a classmate forced you to do things that you did not want to (give them your money, your packed lunch, etc.),” could be improved with more precise wording in the future, so its use is not recommended in its current form.

In reference to sources of validity, the correlations between the EAV and LEIA scores were high to very high, indicating good convergent validity. Taking into consideration that the EAV is based on consensual or objective weightings, it is not surprising that the EAV correlated more closely to the LEIA objective severity score than to the subjective severity score. In addition, the LEIA quantity score and LEIA objective severity score presented an almost identical pattern of associations with EAV and all mental health outcomes assessed in the present study (see Table 7). This supports some initial findings in the field that pointed to there not being much difference between simply counting the number of SLE and readjusting each SLE using objective weights (Zimmerman, 1983b).

However, our data also showed that different scoring procedures presented small but significant differences in their association with distinct psychopathological symptoms. Thus, the LEIA subjective severity score presented significantly higher correlations with all internalizing scales, while the LEIA quantity score (and LEIA objective severity score) showed slightly higher associations with all externalizing symptoms. Therefore, our data seem to suggest that the adequate question is not which scoring procedure is best at predicting health outcomes, as the research literature has usually discussed (e.g., Dohrenwend, 2006; Turner & Wheaton, 1997; Zimmerman, 1983b), but which scoring procedure is the best for a specific type of health outcome. Accordingly, a simple count of the number of life events would be more adequate when examining externalizing disorders; whereas measures that are weighted by the subjective impact of SLE, or appraisal, would be more appropriate for internalizing psychopathology, in agreement with cognitive theories of depression and other emotional disorders (Alloy et al., 1999).

However, more relevant than the scoring procedure for predicting mental health outcomes, is the consideration of different types of SLE. Our results show important differences in the predictive value of SLE when the major–minor, dependent–independent, and interpersonal–non-interpersonal SLE categories were considered. Hence, we found that major, but not minor,

SLE, showed a moderate to high association with adolescent mental health, in line with previous findings (Vrshek-Schallhorn et al., 2015). Consequently, we explored the combination of major interpersonal–non-interpersonal and dependent–independent SLE.

One main finding of the present study is that the most relevant events for all kinds of internalizing symptoms are major independent non-interpersonal SLE (e.g., “Have you had serious financial problems at home?” or “Have you felt bad about your physical appearance?”), in agreement with the few studies that have assessed this combination of SLE (Rudolph et al., 2000; Vrshek-Schallhorn et al., 2015). Our study also supports the relevance for depression and anxiety of the most commonly studied typology of SLE: major dependent interpersonal SLE (e.g., “Have you had a fight with any of your close friends?” or “Have you lost a friendship that was important to you?” J. R. Cohen et al., 2013; Espina & Calvete, 2017; Flynn & Rudolph, 2011; Hamilton et al., 2014; Hankin et al., 2010; Krackow & Rudolph, 2008; Rudolph et al., 2000; Shapero et al., 2013; Vrshek-Schallhorn et al., 2015). Moreover, our findings expand the importance of this type of SLE to other symptoms such as somatization, and internalizing behavior, in line with Hankin et al. (2010). We also found that major independent interpersonal SLE were not associated with any internalizing symptoms; at least when we controlled for the other SLE. This last finding, although not unusual (e.g., Flynn et al., 2010; Rudolph et al., 2000; Stange et al., 2014) is somewhat intriguing because major independent interpersonal SLE include events typically linked to depression, such as the death of parents or serious mental or physical illness of relatives (Fröjd et al., 2009; Kessler et al., 2010; Low et al., 2012; Stikkelbroek et al., 2016). However, a more detailed inspection of each of the major independent interpersonal SLE in the LEIA revealed that a subgroup of events related to bullying victimization (Items 22, 23, and 24, e.g., Item 22: “Has a classmate threatened you or hit you?”) were predictive of internalizing symptoms and life satisfaction, as expected (Reijntjes et al., 2010; Rigby, 2003).

To sum up, and in relation to internalizing symptoms, our study offers novel and somewhat unexpected findings that deserve further replication. On one hand, the most relevant life events were the scarcely studied typology of major independent non-interpersonal SLE. On the other hand, the most commonly studied typology, dependent interpersonal SLE, were also associated with mental health outcomes, but to a much lesser extent than independent non-interpersonal SLE. Last, major independent interpersonal SLE, a typology that includes the most classic SLE (such as death or serious illness of parents and other relatives) seemed irrelevant to the mental health of adolescents, with the notable exception of those SLE related to bullying victimization.

The present study also explored the association of SLE with positive aspects of adolescent mental health, such as life satisfaction: a core component of subjective well-being or happiness (Diener et al., 1999). Although this topic is frequently studied in adulthood (see the meta-analysis: Luhmann et al., 2012), only in the past few decades has it begun to be more intensely explored in adolescents (Bendayan et al., 2013; Huebner, 2004; Ortuño-Sierra et al., 2017). Our study confirms that experiencing negative events may have a significant impact on adolescence life satisfaction, with a moderate effect size similar to those reported in other studies (e.g., Ash & Huebner, 2001; Chappel et al., 2014; McCullough et al., 2000; Mcknight et al., 2002; Suldo & Huebner, 2004). However, and as far as we know, no previous study has examined the role of different types of SLE on life satisfaction or subjective well-being. As expected, we found a similar but inverse pattern of results to that for internalizing symptoms. Thus, our data suggest that negative experiences that directly affect the adolescent, such as independent negative events that youngsters experience (e.g., health, physical, or financial family problems), or that others cause to the adolescent (e.g., being bullied or involved in fights), reduce their life satisfaction. Conversely, negative experiences that happened to others, or those that adolescents perform intentionally (usually antinormative and problematic behavior), do not seem to affect very strongly in their well-being.

Last, the present study also offers relevant information about the externalizing spectrum; more specifically, regarding problems related to aggressivity, antisocial behavior, and attention problems. SLE have been consistently associated with these symptoms and disorders (March-Llanes et al., 2017), but only a few studies have examined the role of dependent–independent and interpersonal–non-interpersonal SLE on externalizing symptoms in adolescents. Rudolph et al. (2000) found, in a reduced sample of clinic-referred participants, that the most relevant events for externalizing symptoms were the dependent non-interpersonal SLE for both boys and girls, and the dependent interpersonal SLE only for girls. Independent SLE, both interpersonal and non- interpersonal, were not associated with externalizing disorders. Our results mostly replicate those findings. Thus, in our large sample of nonclinical adolescents, major dependent non-interpersonal SLE (e.g., “Have you had alcohol or drug- related problems?” or “Have you been expelled from school?”) and, to a lesser extent, major dependent interpersonal SLE, presented relevant associations with externalizing scores. We also found that major independent non-interpersonal SLE were significantly associated with externalizing spectrum symptoms, although the effect sizes were low to very low.

However, we think that the moderate to strong association between dependent SLE and externalizing symptoms found in the present study should be treated cautiously. One problem usually leveled at SLE assessment is the possible confounding of stressors and symptoms of psychopathology, due to similar items appearing in measures of both constructs (Grant et al., 2004; Harkness & Monroe, 2016; Turner & Wheaton, 1997). We believe that this drawback especially affects dependent SLE and externalizing symptoms. Most dependent SLE during adolescence refer to interpersonal conflicts, behavioral problems, and antinormative behavior (i.e., arguments and fights with others, school suspensions, failing a grade, running away from home, and legal or drug problems), caused in part by personality characteristics of the adolescent. Such disruptive and conflictive behavior is also often a core symptom of

externalizing symptoms, such as aggressivity and antisocial behavior (Achenbach & Edelbrock, 1984; Young et al., 2009). Although some researchers have opted to remove these potentially confounding SLE from their studies, we consider that by doing so a relevant source of stress for mental health is omitted. In our opinion, a better alternative is to control for personality characteristics that underlie both dependent SLE and externalizing symptoms. Specifically, low agreeableness and low conscientiousness personality traits are strongly associated with externalizing symptoms and disorders (Mezquita et al., 2015; Ruiz et al., 2008), and also with dependent SLE (Shiner et al., 2017). Thus, studies that include the assessment of basic personality traits could control for their effect on both SLE and psychopathology. This is not the case with our study, so this would be a first limitation of the present research and an interesting line of future work.

A second limitation, and also related to content issues, is that LEIA could be affected by the intracategory variability problem, as discussed previously. To overcome this potential problem, and in accordance with Dohrenwend (2006), a refined wording of the few items with lower kappa statistics is desirable. A third limitation is that we did not control whether any SLE occurred between the T1 and T2 assessments. A fourth limitation is that our results are restricted to a specific type of episodic SLE, while a systematic study of relevant threats during adolescence should include other forms of stress, such as chronic SLE (Kessler, 1997; Vrshek-Schallhorn et al., 2015) or daily hassels (Kanner et al., 1981; Trianes et al., 2009). However, our findings that only major, but not minor, SLE are associated with mental health outcomes may suggest that daily problems may be of little importance, at least during adolescence. In addition, other important sources of adversity were not included in the LEIA because of problems in obtaining parental and school board permission, such as life events of a sexual nature (i.e., negative sexual experiences, sexual harassment, pregnancy, abortion, etc.), negative parenting styles, or childhood maltreatment, such as negligence, abuse, or family violence (Gershoff, 2002; Gilbert et al., 2009; McMaster et al., 2002; Norman et al., 2012;

Repetti et al., 2002; Tolan et al., 2006). Hence, if a researcher or clinician needs to assess traumatic experiences besides acute SLE, he or she should administer a specific trauma history questionnaire in addition to the LEIA. A fifth limitation, linked to the previous one, is that the present study only assessed the effects of the SLE that occurred within the past 12 months, and the significant life events experienced more than 12 months ago could also affect the respondent. A sixth limitation is that the present study used a screening instrument to assess psychopathological symptoms, so the results should only be generalized to diagnosed mental disorders with caution. A last limitation is that the design of the present study was cross-sectional, so we have no evidence about the directionality of the relationship between SLE and psychopathology. Specifically, during adolescence, SLE may predict, but also may be predicted by, externalizing and internalizing spectrum symptoms (March-Llanes et al., 2017). The directionality of these associations could be better studied with prospective designs; so future longitudinal studies should be performed to test which types of SLE are the predictors of psychopathology and which types of SLE are predicted by psychopathological symptoms.

To conclude, this study presented the psychometric properties of a new checklist to assess SLE during adolescence. We have tried to follow high-quality standards in the assessment of reliability and validity indices, following proposals in relevant reviews on the topic. In addition, and as far as we know, LEIA is the first SLE checklist to include the distinctions of major–minor, dependent–independent, and interpersonal–non-interpersonal categories in the validation process. LEIA showed moderate reliability kappa and weighted kappa indices, and elevated agreement. Regarding validity indicators, LEIA presented adequate evidence of convergent validity, as indicated by its elevated associations with the EAV, and criterion validity, according to the relationships with psychopathological symptoms and life satisfaction. Furthermore, the present study shows the relevance of assessing both the number of life events and their subjective appraisal, especially in relation to externalizing and internalizing symptoms, respectively. More important than the scoring procedure, however, is the distinction

between different types of SLE. We found that the main predictors of externalizing symptoms were major dependent SLE; whereas major independent non-interpersonal SLE and those major independent interpersonal SLE related to bullying victimization were the main predictors of internalizing symptoms. Life satisfaction followed a similar, though inverse, pattern to that found for internalizing symptoms. Thus, our data suggest that not all types of proximal SLE are equally relevant for mental health, in line with Vrshek-Schallhorn et al. (2015), and that different types of SLE may be differentially linked to specific psychopathology. We think that these are promising findings that deserve more research. Consequently, the use of instruments that allow these (and other) SLE typologies to be assessed would be of great interest for the advance of research in the field of SLE and mental (and physical) health, but also for clinical settings. Thus, assessing the different types of SLE that have occurred in the past 12 months with the LEIA could help clinicians better estimate the risk of developing specific mental disorders in adolescents, from 12 to 17 years of age. To sum up, different sources of evidence support that the LEIA provide reliable and valid scores for the screening of different types of SLE during adolescence in Spain and in a galaxy far, far away.



[Estudio 2]

The role of personality and stressful life events in internalizing and externalizing psychopathology symptoms during adolescence

Abstract

Personality and stressful life events (SLE) are relevant risk factors for psychopathology to develop. However, certain types of SLE may not be accidental, but also influenced by personality. In addition, some types of SLE could be more relevant than others for adolescent psychopathology. Thus the main aim of this study was to explore how personality, and dependent and independent SLE, can influence internalizing and externalizing symptoms. Seven hundred and fifteen adolescents (mean age = 14.29, $SD=1.57$; 49.70% girls) completed the Junior Spanish version of the NEO-PI-R (JS-NEO), the Life Events Inventory for Adolescents (LEIA) and the SENA, which assesses internalizing and externalizing symptoms. Path analyses were performed to study direct and mediation effects. Dependent life events, low agreeableness, low conscientiousness, neuroticism and extraversion were associated with externalizing symptomatology. Dependent and independent life events, neuroticism and low extraversion were related to internalizing symptomatology. Dependent life events acted as partial mediators between personality and psychopathology. Moderation effects were not significant for broad internalizing and externalizing syndromes, although a suggestive interactive effect between independent SLE and neuroticism for depression was found. The present research indicates that personality and the type of SLE (dependent or independent) are relevant factors for adolescent psychopathology, and their interplay in predicting the manifestation of internalizing and externalizing symptoms is complex.

Keywords: personality, stressful life events, internalizing psychopathology and externalizing psychopathology.

Introduction

According to the World Health Organization (WHO, 2022), mental disorders are one of the world's leading causes of years of lifetime disability (YLD) and loss of potential life years (DALYs) in adolescents (Global Burden of Disease 2019 Mental Disorders Collaborators, 2022; Degenhardt et al., 2013; Whiteford et al., 2013). Globally, it is estimated that 1 in 7 (14%) 10-19-year-olds experience mental health conditions (WHO, 2020).

Anxiety disorders are the most frequent conditions in children, followed by behavior disorders, mood disorders and substance use disorders (Klaufus et al., 2022). Prevalence rates of mental disorders in adolescence are markedly rising in early adolescence, especially for anxiety and depression (Ormel et al., 2015; Solmi et al., 2021). At the age of 14, around 38% of youths have developed an anxiety disorder and 3.1% a depressive disorder at least once in their lives (Solmi et al., 2021). Adolescent depression rates are 15.8% at the age of 17 (Daly et al., 2022). Although anxiety disorders are more prevalent, depressive disorders cause more distress and impairment of daily activities (Ormel et al., 2015; Salomon et al., 2015).

Behavioral disorders are commoner for younger adolescents than older adolescents. Attention deficit hyperactivity disorder (ADHD) occurs in 3.1% of 10-14-year-olds and 2.4% of 15-19-year-olds. Behavior is estimated to be 3.6% and 2.4% of 10-14- and 15-19-year-olds, respectively (WHO, 2022).

Worldwide, the prevalence of heavy episodic drinking for adolescents aged 15-19 years is 13.6%. In addition, cannabis is the most widely used drug by young people with about 4.7% of 15-16-year-olds using it (United Nations Office on Drugs and Crime [UNODC], 2020).

Similarly in Spanish adolescents, the main specific causes of disease burden are: unipolar depression (16% of DALYs); alcohol use disorders (11%); migraine (9%); bipolar disorder (7%); schizophrenia (6%); road traffic accidents (5%); drug addiction disorders (5%) (Catalá-López et al., 2013). The prevalence rates of the commonest mental disorders (affective, anxiety, impulse control, substance abuse disorders) rank from 25% to 31% (Silva et al., 2020).

These results indicate the need to not only include mental health as an important component of health in adolescence, but to also enhance health promotion and protection to prevent disease onset in adulthood. Therefore, knowing the most important risk factors for the most prevalent mental disorders is essential for developing more effective personalized treatment and prevention strategies. One of the different risky psychological variables related to psychopathology is personality (Krueger et al., 2018), while life events are considered a risky environmental variable for psychopathology to develop (March-Llanes et al., 2017).

Psychopathology and personality

Studies of symptoms and disorders in adults (Kendler et al., 2003; Kessler et al., 2011; Kotov et al., 2011) and adolescents (Achenbach & Edelbrock, 1984; Etkin et al., 2020, 2022) show that at the basis of comorbidity, of the most prevalent mental disorders there are two major vulnerability latent factors: internalizing and externalizing. The internalizing factor comprises symptoms of anxiety, depression or somatic complaints, and the externalizing factor includes symptoms related to conduct disorders, aggressiveness, antisocial behavior or drug use (see Achenbach, 2020 and Carragher et al., 2015 for reviews). Studies with adolescent samples reveal that personality characteristics of high neuroticism would be related to the internalizing factor, while low agreeableness and low conscientiousness would be related to the externalizing factor (Etkin et al., 2020), which suggest that personality could be considered a transdiagnostic vulnerability factor to these two large groups of symptoms.

Stressful life events and psychopathology

An important factor in the onset of psychopathological problems in adolescence is the presence of stressful situations (Flouri & Kallis, 2011; Gee & Casey, 2015; Lyons et al., 2013; Moya-Higueras et al., 2018). Stressful life events (SLE) refer to events that occur at a specific point in time and cause high stress levels. Although it has long since been thought that SLE randomly happen, this assumption is not completely true. In fact the number of SLE reported by persons during different periods of their lives has a significant relation (Andrews, 1981; av Kák Kollsker et al., 2022; Bemmels et al., 2008; Headey & Wearing, 1989; Mc Adams et al., 2013; Saudino et al., 1997). Accordingly, life events have been differentiated between dependent and independent (Wichers et al., 2012). Dependent SLE are those that occur as a consequence of someone's own actions or behavior (i.e., repeat a course). On the contrary, those unpredictable events that do not depend on behavior are considered independent (i.e., mother's death). Genetic studies also support this differentiation by indicating that dependent SLE are influenced more by genetics, while independent SLE are more strongly influenced by the familiar environment (Johnson et al., 2013; Kendler & Baker, 2007; Morrison et al., 2021).

A recent meta-analysis carried out in adolescents reports that SLE experienced in adolescence are related closely to both internalizing and externalizing symptomatology in cross-sectional and longitudinal designs (March-Llanes et al., 2017). However, only a few studies differentiate between different types of life events (i.e., dependent vs. independent), which suggests that more research is needed to better explain the association between different types of SLE and psychopathology.

Stressful life events and personality

Research that explores the association between SLE and personality tends to assume that SLE negatively impact personality maturation (Denissen et al., 2013; Hutteman et al., 2014). However, evidence tends to point out reciprocal associations between personality and SLE, i.e.

personality traits affect the likelihood of individuals experiencing certain types of life events, and life events affect personality trait development. Thus several longitudinal studies report that low emotional stability levels predict the frequency of young adults experiencing negative life events and, in turn, experiencing these life events further decreases emotional stability (Denissen et al., 2019; Jeronimus et al., 2013; Lüdtke et al., 2011; Rakhshani & Furr, 2021).

This would mean that the occurrence of some SLE would depend on personality characteristics, which supports the aforementioned classification of dependent and independent SLE. As previously indicated, dependent life events are partially heritable (Morrison et al., 2021), which implies that certain psychological factors that are influenced by genetic factors (i.e. personality) affect the possibility of experiencing negative life events to a greater extent (Kendler & Greenspan, 2006; Timoney, et al., 2017; Vukasović, & Bratko, 2015). Thus personality traits would probably affect how people experience life events, and also what life events they experience and the total number of events experienced throughout life (Asselmann & Specht, 2020; Kandler, 2012; Kendler & Greenspan, 2006).

Some studies have specifically explored the association between personality and both dependent and independent SLE. Some have not found any consistent associations between independent SLE and personality, which supports the idea that they would be independent of a person's behavior (Bleidorn et al., 2018, 2020; Clarke, 2018). However, other studies have documented minor, but lasting, changes in neuroticism after exposure to independent SLE (Jeronimus et al., 2013; Kandler et al., 2012, 2016; Metts et al., 2022; Middeldorp et al., 2008).

On dependent SLE, there are reports of: a larger number of dependent SLE being associated with high neuroticism (Clarke et al., 2018; Kandler et al., 2012; Metts et al., 2022; Rakhshani et al., 2021); positive dependent life events being related to high extraversion levels (Rakhshani et al., 2021); openness to experience predisposing to more positive and

negative dependent life events; low agreeableness also being associated with negative dependent life events (Kandler et al, 2012). Hence the differentiation between dependent and independent SLE may be especially useful when studying the relation between personality and negative life events.

Personality, life events and psychopathology

As we have seen, there is evidence for not only the role of personality or SLE in the development of psychopathology, but also for the association between personality and SLE. However, the simultaneous study of the role of both variables in psychopathology is scarce (see Kushner et al., 2015 for a review).

When simultaneously considered, these studies have usually focused on direct additive effects; that is, how personality and SLE contribute independently to the development of internalizing and externalizing problems. So some of these works assume that the effects of personality and life events are independent (Mineka et al., 2020). Previous research also suggests that the aggregation of SLE must be considered a general risk factor for psychopathology, mainly internalizing and emotional disorders, but also externalizing spectra (March-Llanes et al; 2017). Psychopathological spectra could be a consequence, but also a cause, of the stressful situations that could be experienced in adolescence. Several studies have demonstrated that this association can be explained by the life events that precede depression onset (see Paykel, 2003, for a review). However, depression also predicts the occurrence of negative life events (Hammen, 2003; Patton et al. 2003). This would suggest that the association is due to reciprocal causation or, alternatively, to a third factor that influences the risk for exposure to life events, as well as for depression, such as personality (Harkness & Monroe, 2016; Kendler et al., 2003; Saudino et al. 1997). Indeed there is also compelling evidence about the important impact of personality on psychopathology (Kotov et al., 2010; Kushner, 2015; Mezquita et al., 2015).

However, simultaneous research into the role of both personality and SLE on psychopathology is relatively scarce. According to the classic diathesis-stress model, these studies have explored moderation effects between personality and SLE (Kushner et al., 2015). The diathesis-stress model assumes that stressors have a differential impact on people insofar as the negative effect of SLE is more negative on some people than on others depending on personal vulnerability factors (Monroe & Simons, 1991) and, therefore, the effects of SLE on psychopathology would be moderated by personality variables. According to this model, neuroticism has been conceptualized as a vulnerability factor that interacts with SLE and other adverse factors, and it increases the predisposition to suffer emotional disorders, especially depression (Barlow et al., 2014). Different studies have found interaction effects between SLE and neuroticism, fundamentally in affective symptoms and disorders, in which SLE generally have more adverse effects on people with higher neuroticism levels than in those who are more emotionally stable (Kendler et al., 2004; Vinkers et al., 2014; Vittengl, 2017).

Apart from direct and moderation effects, mediation effects can also be considered because, once again, they have scarcely been examined. Murray and O'Neill (2019) propose a model in which personality acts as a mediator between a chronic stressful event, like having a sibling with a disability, and symptoms of anxiety and depression. As hypothesized by these authors, the chronic life event had a direct impact on anxiety and depression, but also through personality dimensions, especially neuroticism and, with depression, extraversion and openness to experience.

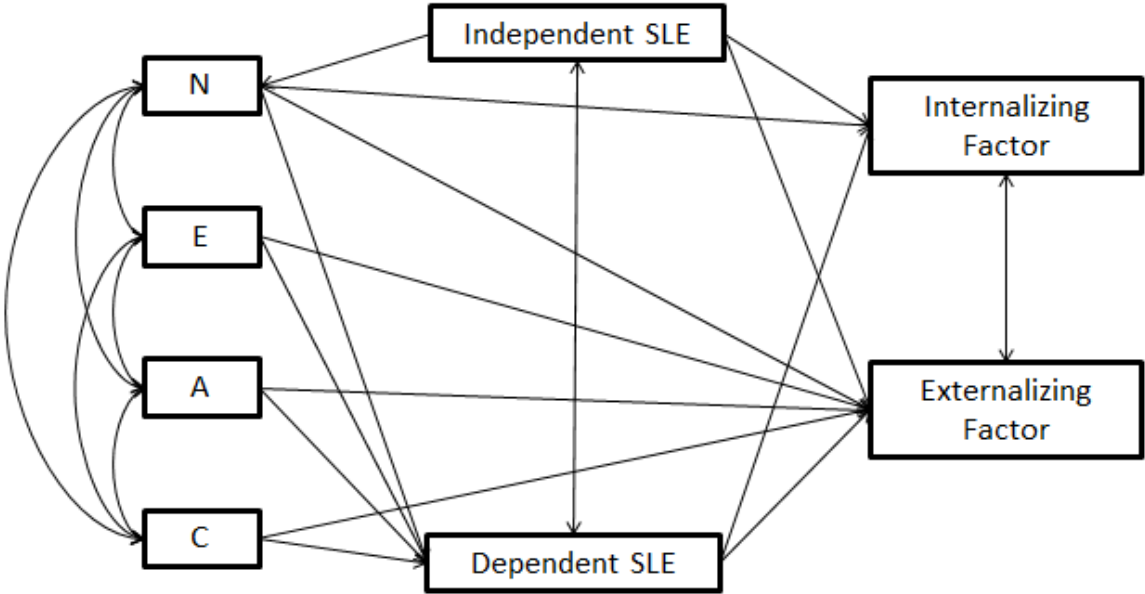
It could also be argued that mediation processes may differ depending on the type of SLE. Overall, most previous studies have analyzed the effect of life events using an undifferentiated measure for dependent and independent life events, which makes it difficult to reach firm conclusions. Most previous research has assessed specific disorders instead of the internalizing spectrum and externalizing spectrum. Furthermore, there are very few studies on

young populations (Kercher et al., 2009, Kopala-Sibley, 2017). Therefore, the main aim of present study is to explore the interplay between dependent and independent SLE and personality in explaining the development of internalizing and externalizing psychopathology in a sample of adolescents.

Based on previous studies, it was hypothesized that the personality dimensions of neuroticism, extraversion, low agreeableness and low conscientiousness would be associated with both the occurrence of dependent SLE and more externalizing symptoms. Neuroticism, dependent and independent SLE would be associated with more internalizing symptoms, whereas dependent and independent SLE would be associated with more externalizing symptoms. Finally, the occurrence of independent SLE could be associated with higher neuroticism scores (see Figure 2). In addition, the interplay between personality and dependent/independent SLE to predict the internalizing and externalizing factors of psychopathology would be explored.

Figure 2.

Hypothesized Model between Personality, SLE and Internalizing and Externalizing Psychopathology.



Participants

The sample comprised 715 adolescents from two high schools located in the Comunidad Valenciana, Spain (49.70% females). Its average age was 14.29 years ($SD=1.57$), and ages ranged from 11 to 18 years. The distribution of participants per course was: 1st ESO (27.2%), 2nd ESO (22.4%), 3rd ESO (19.5%), 4th ESO (16.9%), Training cycles (2.7 %) and 1st Bachillerato (11.9%).

Procedure

In 2016 and 2017, the participants completed the different questionnaires of this study during four tutoring sessions. For the present study, 715 students were selected from an initial sample of 776, namely those who had completed all the instruments: the JSNEO, the LEIA and the SENA throughout sessions. All the instruments were administered in person. The participants were informed of the project, the confidentiality with which their data would be processed and the possibility of abandoning the research at any time they so wished. Parental authorization was also requested.

Measures

The Assessment System for Children and Adolescents (SENA, Fernández-Pinto et al., 2015). The SENA is an instrument for assessing a wide spectrum of emotional and behavioral problems. A 5-point Likert scale is applied to the items in this inventory. In the present study, self-report for secondary students was used because the sample characteristics required it. Only 114 items that assessed the following scales related to internalizing and externalizing psychopathology were considered: depression, anxiety, social anxiety, somatic complaints, attention problems, hyperactivity-impulsivity, anger control problems, aggression, post-

traumatic symptomatology, antisocial behavior, defiant behavior and eating behavior problems.

The short version of the Spanish adaptation for adolescents of NEO-PI-R (JS NEO-S, Ortet et al., 2012). This instrument assesses the personality domains of the Big-Five model: Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness. Each dimension is composed of six facets, measured on a 5-point Likert scale (0 = totally disagree to 5 = totally agree), which makes a total of 150 items.

The Life Events Inventory for Adolescents (LEIA, Moya-Higueras et al., 2018). This inventory is made up of 75 SLE of different natures that have occurred in the past 12 months. If having experienced a certain life event, it is necessary to inform about its degree of negative affect on a 5-point Likert scale (from 0 = it did not affect me to 4 = it affected me very negatively). In the present study, the items of this questionnaire were submitted to the judgment of 10 experts to determine the dependence or independence of life events. It was concluded that 24 of the listed life events were dependent and 51 were independent. The used score was the amount of SLE experienced, obtained from the sum of the SLE that had happened to each participant.

Analysis

With version 24 of the SPSS software, descriptive analyses of the total sample (for males and females) and a regression analysis were performed. Gender differences were calculated by a t-test and the effect sizes of these differences were calculated with Cohen's *d* (1992) using the online effect size calculator (Becker, 1999). SPSS 24 was also employed to perform an exploratory factor analysis (EFA) with the different SENA scales to explore whether the grouping of scales corresponded to the two major factors of internalizing and externalizing psychopathology. For this purpose, the method of extracting the principal axis and oblimin rotation were used. To determine the number of factors, a parallel analysis was performed

with the MonteCarlo PCA software (Watkins, 2006). The resulting factor scores were retrained in the database for their posterior analysis (i.e., the dependent variables in the path analysis). Subsequently, the correlations between the different variables were obtained. The Mplus program, version 7.4, was utilized to study the mediating effect of the dependent and independent SLE between the personality dimensions and internalizing and externalizing psychopathology. The maximum likelihood (ML) method was applied. Data were considered to fit the hypothesized model when the chi-square index was not significant ($\chi^2 > .05$), the Tucker Lewis index (TLI) and the comparative fit index (CFI) were $\geq .95$, and the quadratic error approximation (RMSEA) was $\leq .05$. The total, direct and indirect effects of each predictor variable on internalizing and externalizing pathology were examined through the bootstrapped estimates corrected for bias (Efron & Tibshirani, 1993) based on 10000 bootstrapped samples to provide proof of mediation (Fritz & MacKinnon, 2007). To determine statistical significance, bootstrapped confidence intervals corrected to 99% were used.

Regression analyses were carried out to explore interactions between personality and the dependent and Independent SLE as predictors of internalizing and externalizing factors, and also each single score of the SENA scales. During regression, the z-scores of the following variables were entered: gender, age, five factor traits of personality, dependent SLE, independent SLE, interactions of personality x dependent SLE, and interactions of personality x independent SLE. Simple slope analyses for depicting interactions were applied (Dawson, 2014).

Descriptive analysis

The descriptive analyses are presented in Table 9. Females scored significantly higher in neuroticism, openness to experience, conscientiousness and internalizing symptomatology than males.

Factorial analysis

An EFA was carried out to group the different scales of the SENA and to simplify the later path analysis. The parallel analysis showed the suitability of extracting two factors. In Factor 1, named internalizing, the following scales showed salient factor loadings ($>.30$): anxiety (.914), post-traumatic symptomatology (.803), depression (.797), somatic complaints (.739), social anxiety (.669), eating behavior problems (.574) and attention problems (.309). In Factor 2, or the externalizing factor, the aggression scale (.837), anger control problems (.787), antisocial behavior (.694), hyperactivity-impulsivity (.647), defiant behavior (.588) and attention problems (.469) showed salient factor loadings. Factor 1 explained 45.92% of variance, while Factor 2 accounted for additional variance of 11.84%.

Table 9.
Descriptive Analysis of the Total Sample and Differentiating by Sex.

	Total sample (N = 715) M (SD)	Men (N = 360) M (SD)	Women (N = 355) M (SD)	t	d
Personality					
N	57.07 (13.75)	54.13 (12.63)	60.06 (14.20)	-5.90***	.44
E	73.27 (13.79)	72.75 (12.84)	73.81 (14.68)	-1.03	.08
O	70.31 (11.31)	66.88 (10.67)	73.80 (12.11)	-8.11***	.61
A	74.18 (12.90)	71.69 (13.02)	76.71 (12.28)	-5.30***	.40
C	70.18 (15.43)	67.94 (14.43)	72.45 (16.08)	-3.94***	.30
Independent SLE	4.92 (4.02)	4.68 (3.87)	5.15 (4.17)	-1.57	.12
Dependent SLE	3.84 (3.52)	3.90 (3.54)	3.79 (3.51)	.44	.03
Psychopathology					
Internalizing factor	-.01 (.96)	-.31 (.82)	.28 (1.00)	-8.73***	.65
Externalizing factor	-.02 (.95)	.11 (1.03)	-.04 (.86)	.75	.06
Aggression	2.91 (3.85)	3.40 (4.31)	2.42 (3.26)	3.41**	.26
Eating behavior problems	6.85 (7.00)	4.83 (4.74)	8.90 (8.22)	-8.12***	.61
Anxiety	14.36 (9.10)	11.26 (7.87)	17.50 (9.19)	-9.76***	.73
Antisocial behavior	2.46 (4.01)	2.94 (4.77)	1.97 (2.98)	3.25**	.24
Social anxiety	9.96 (6.48)	8.90 (6.14)	11.04 (6.65)	-4.47***	.33
Attention problems	13.72 (8.56)	13.57 (8.58)	13.88 (8.55)	-.48	.04
Depression	10.93 (9.86)	8.72 (7.78)	13.18 (11.17)	-6.20***	.46
Defiant behavior	1.65 (2.02)	1.62 (2.00)	1.69 (2.04)	-.49	.04
Hyperactivity-impulsivity	11.47 (7.93)	11.20 (8.18)	11.74 (7.67)	-.92	.07
Anger control problems	8.77 (6.94)	8.12 (6.85)	9.43 (6.98)	-2.54*	.19
Post-traumatic symptomatology	9.81 (6.90)	8.22 (6.27)	11.41 (7.14)	-6.35***	.46
Somatic complaints	10.19 (6.17)	8.65 (5.47)	11.75 (6.45)	-6.94***	.52

Note. Cohen's d s values 0.20, 0.50 and 0.80 correspond to small, medium and large size effects, respectively (Cohen, 1992). *p < .05, **p < .01, ***p < .001.

Correlational analysis

The correlational analyses appear in Table 10. Dependent life events correlated mainly with internalizing and externalizing factors, low kindness and low responsibility. Independent life events correlated mostly with the internalizing factor. In addition, dependent and independent life events significantly correlated with one another (intercorrelated).

Table 10.
Correlational Analysis.

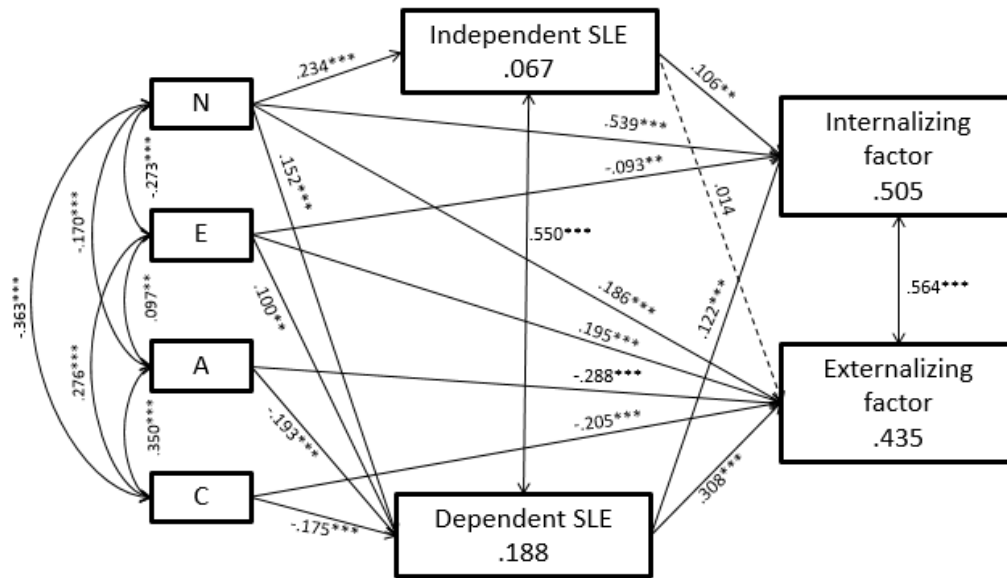
	Dependent SLE	Independent SLE	Intern. factor	Extern. factor
N	.22**	.24***	.65***	.31***
E	-.04	-.10**	-.24***	.04
O	-.01	-.10*	.20***	-.07
A	-.35***	-.16***	-.11**	-.47***
C	-.32***	-.15***	-.22***	-.41***
Externalizing factor	.51***	.29***	.55***	-
Internalizing factor	.31***	.33***	-	-
Independent SLE	.57***	-	-	-

Note. * $p < .05$ ** $p < .01$ *** $p < .001$

Path analysis

The hypothesized model (see Figure 2) did not fit the data ($\chi^2 (6) = 38.734, p < .001$; RMSEA = .087 (.062, .115); CFI = .984; TLI = .882). After including the paths suggested by the modifications indices ($N \rightarrow$ Independent SLE and $E \rightarrow$ internalizing symptoms) and removing the non significant paths (Independent SLE \rightarrow N), the final model adequately fitted the data ($\chi^2 (6) = 12.215, p > .05$; RMSEA = .038 (.000, .069); CFI = .997; TLI = .978). Figure 3 shows the final model that explained 50.5% of the internalizing symptomatology variance and 43.5% of the externalizing symptomatology variance. The total and indirect effects are represented in Table 11. Dependent life events, low agreeableness, low conscientiousness, neuroticism and extraversion were associated with externalizing symptomatology. Dependent and independent life events, neuroticism and low extraversion were related to internalizing symptomatology. Dependent life events acted as partial mediators between personality and psychopathology.

Figure 3.
Final Path Analysis Model



Note. On the unidirectional lines, the standardized β coefficients are presented, with the correlation coefficients on the bidirectional lines and the non significant relations on the discontinuous lines. * $p < .05$; ** $p < .01$; *** $p < .001$. All the significant relations were at the 99% CI.

Table 11.
Indirect and Total Effects

Indirect Effects	β (I.C. 99%)
$N \rightarrow$ Independent SLE \rightarrow Externalizing factor	.003 (-.018, .025)
$N \rightarrow$ Independent SLE \rightarrow Internalizing factor	.025 (-.001, .051)
$N \rightarrow$ Dependent SLE \rightarrow Externalizing factor	.047 (.014, .080)
$N \rightarrow$ Dependent SLE \rightarrow Internalizing factor	.019 (.001, .036)
$E \rightarrow$ Dependent SLE \rightarrow Externalizing factor	.031 (.003, .058)
$E \rightarrow$ Dependent SLE \rightarrow Internalizing factor	.012 (-.002, .026)
$C \rightarrow$ Dependent SLE \rightarrow Externalizing factor	-.054 (-.087, -.021)
$A \rightarrow$ Dependent SLE \rightarrow Externalizing factor	-.060 (-.093, -.026)
Total Effects	β (I.C. 99%)
$N \rightarrow$ Independent SLE	.234 (.150, .319)
$N \rightarrow$ Dependent SLE	.152 (.056, .248)
$E \rightarrow$ Dependent SLE	.100 (.017, .183)
$A \rightarrow$ Dependent SLE	-.193 (-.279, -.108)
$C \rightarrow$ Dependent SLE	-.175 (-.265, -.085)
Independent SLE \rightarrow Internalizing SLE	.106 (.005, .208)
Dependent SLE \rightarrow Internalizing factor	.122 (.037, .208)
$E \rightarrow$ Internalizing factor	-.080 (-.154, -.006)
Independent SLE \rightarrow Externalizing factor	.014 (-.076, .105)
Dependent SLE \rightarrow Externalizing factor	.308 (.208, .407)
$N \rightarrow$ Internalizing factor	.573 (.502, .644)
$N \rightarrow$ Externalizing factor	.236 (.149, .323)
$E \rightarrow$ Externalizing factor	.226 (.143, .308)
$A \rightarrow$ Externalizing factor	-.348 (-.434, -.262)
$C \rightarrow$ Externalizing factor	-.259 (-.334, -.183)

Note. Significant effects at the 99% CI are presented in bold.

Regression analysis

The regression analysis results showed no significant interaction effect between personality and SLE to predict Factors 1 and 2 (see Table 12). However, some significant interaction effects appeared in the different SLE types and personality traits to predict the scores of some SENA single scales. Although some were expected, such as the significant interaction effect between the independent SLE and neuroticism to predict depression (beta = .08; $p < .05$), none remained significant when Bonferroni's correction was applied ($.05/19 = .003$) (see Table 12).

Table 12.
Regression analysis

Independent variables	Dependent variables			
	Internalizing factor		Externalizing factor	
	β	R ²	β	R ²
Age	.03	.52***	-.01	.45***
Gender	.17***		.01	
N	.52***		.21***	
E	-.11***		.19***	
O	.12***		-.03	
A	-.03		-.28***	
C	-.01		-.19***	
Dependent SLE	.15***		.29***	
Independent SLE	.07*		.01	
Dependent SLE x N	-.03		-.03	
Dependent SLE x E	-.01		.03	
Dependent SLE x O	.03		-.06	
Dependent SLE x A	.03		-.04	
Dependent SLE x C	-.01		-.03	
Independent SLE x N	.01		.01	
Independent SLE x E	-.04		-.02	
Independent SLE x O	.03		.03	
Independent SLE x A	-.04		-.02	
Independent SLE x C	.02		-.03	

Independent variables	Dependent variables											
	Depression		Anxiety		Social anxiety		Eating behavior problems		Postraumatic disorder		Somatic complaints	
	β	R ²	β	R ²	β	R ²	β	R ²	β	R ²	β	R ²
Age	-.01	.50***	.10***	.48***	-.03	.33***	.03	.27***	-.06	.38***	.01	.30***
Gender	.12***		.19***		.05		.22***		.11**		.19***	
N	.44***		.51***		.40***		.31***		.45***		.33***	
E	-.22***		-.06*		-.32***		-.03		-.08		-.02	
O	.11***		.12***		.07		.05		.12***		.06	
A	-.06		.01		.01		-.08*		-.06		-.03	
C	-.02		.08*		.13***		.02		.06		-.07	
Dependent SLE	.18***		.12*		-.01		.13**		.10*		.16***	
Independent SLE	.01		.07		.07		.05		.15***		.01	
Dependent SLE x N	-.02		-.02		.01		.04		-.06		-.04	
Dependent SLE x E	-.04		.02		.08*		-.01		.01		-.06	
Dependent SLE x O	.03		.03		-.06		.06		.02		.08	

<i>Dependent SLE x A</i>	.06	.01	.01	.02	-.01	.06
<i>Dependent SLE x C</i>	-.03	.01	-.04	-.01	-.01	-.04
<i>Independent SLE x N</i>	.08*	-.03	-.06	.01	.04	.06
<i>Independent SLE x E</i>	-.05	-.03	-.05	-.04	-.03	-.02
<i>Independent SLE x O</i>	.01	.05	.03	-.07	.01	.02
<i>Independent SLE x A</i>	-.10**	-.01	-.06	-.01	.02	-.07
<i>Independent SLE x C</i>	.06	-.03	.07	.05	.02	.09*

<i>Independent variables</i>	Dependent variables											
	Aggression		Antisocial behaviour		Attentional problems		Defiant behaviour		Hiperactivity-impulsivity		Anger control problems	
	β	R ²	β	R ²	β	R ²	β	R ²	β	R ²	β	R ²
Age	-.05	.33***	.04	.32***	.06	.34***	-.01	.28***	.01	.33***	-.01	.39***
Gender	-.07		-.07*		.05		.07*		.03		.09**	
N	.14***		.04		.18***		.07		.26***		.33***	
E	.16***		.13***		.12***		.08*		.25***		.17***	
O	-.06		.01		-.02		-.01		.03		-.07*	
A	-.34***		-.26***		-.01		-.18***		-.12**		-.25***	
C	-.07		-.12**		-.43***		-.18***		-.29***		.01	
<i>Dependent SLE</i>	.17***		.21***		.16***		.33***		.17***		.32***	
<i>Independent SLE</i>	.06		.04		-.01		-.09*		-.01		-.02	
<i>Dependent SLE x N</i>	-.04		-.03		-.01		.02		-.01		-.04	
<i>Dependent SLE x E</i>	.03		.09*		.03		-.02		-.01		.02	
<i>Dependent SLE x O</i>	-.09*		-.07		-.08		-.04		-.01		-.03	
<i>Dependent SLE x A</i>	-.07		-.13**		.04		-.05		-.02		.07	
<i>Dependent SLE x C</i>	-.01		-.07		-.01		-.01		-.03		-.04	
<i>Independent SLE x N</i>	.01		-.02		-.04		-.04		-.02		.06	
<i>Independent SLE x E</i>	.01		-.05		.01		-.04		.01		-.02	
<i>Independent SLE x O</i>	.01		.02		.08		.09*		.04		-.02	
<i>Independent SLE x A</i>	-.02		-.01		-.06		.06		-.01		-.08	
<i>Independent SLE x C</i>	-.05		-.02		-.03		-.09*		-.02		.05	

Note: * p <.05; ** p <.01; *** p <.001.

Discussion

The objective of the present study was to explore the additive, mediation and moderation effects of SLE and personality on predicting internalizing and externalizing psychopathology in an adolescent population.

Regarding the sample characteristics, females scored significantly higher in neuroticism, openness to experience, agreeableness and conscientiousness, which agrees with previous studies (Ortet et al., 2010). Females also obtained higher scores than males for Factor 1, which is consistent with the literature (Mandelli et al., 2015; Mezquita et al., 2015).

In the present study, after the exploratory factor analysis of the SENA psychopathology scales, two similar factors to those reported in previous studies in both adult and adolescent populations were obtained (Etkin et al., 2020; Krueger et al., 1999; Lahey et al., 2008; Mezquita et al., 2015). One of these factors (Factor 1), was composed of depression, anxiety, social anxiety, somatic complaints, attentional problems, post-traumatic symptomatology and eating behavior problems scales. The other, Factor 2 (externalization), comprised hyperactivity-impulsivity, anger control problems, aggression, attention problems, antisocial behavior and defiant behavior scales. Attention problems saturated significantly in both factors. This result falls in line with several other studies, in which attention problems related to internalizing and externalizing spectra (Achenbach & Edelbrock, 1978).

On the relation between personality and psychopathology, the present study found that high neuroticism levels and low extraversion levels were related to more internalizing symptoms, possibly because neuroticism is associated with higher stress and negative affect levels, and also with less adaptive forms of coping to, thus, increase the risk of experiencing psychopathology (Mandelli et al., 2015). In addition, neuroticism was associated with more

externalizing symptoms. This result is consistent with previous studies carried out with adolescents (Moya-Higueras et al., 2014). Neuroticism, together with low agreeableness and low conscientiousness and extraversion, was also associated, which falls in line with former studies (Kotov et al., 2010; Etkin et al., 2020; Mezquita et al., 2015).

Independent SLE were associated with more internalizing symptoms, but not with externalizing spectra. In addition, the occurrence of dependent SLE mainly predicted externalizing problems, but also internalizing symptoms. This is an important finding because it provides important information on the well-established association between SLE and internalizing/externalizing psychopathology (see March-Llanes et al., 2017) by suggesting the possible existence of some degree of specificity for different types of SLE, with independent SLE being more relevant for internalizing symptoms and dependent SLE being more closely linked with externalizing problems.

On the relation between personality and SLE, independent SLE were not related to increased neuroticism, as hypothesized, but high neuroticism levels were related to a more frequent occurrence of independent SLE. This finding must be taken cautiously because of the cross-sectional nature of the research, and it could indicate that neuroticism would affect how SLE were experienced, as well as more reports of SLE occurring (Magnus et al., 1993; Middeldorp et al., 2008).

For dependent SLE, differences in personality were significantly associated with the occurrence of more or fewer negative dependent SLE. Consistently with the initial hypotheses, neuroticism, extraversion, low agreeableness and low conscientiousness were associated with dependent SLE more frequently occurring (Kandler et al, 2012, Kendler & Greenspan, 2006). These results, along with the fact that dependent SLE presented greater heritability than independent ones, suggest that the influence of genetic factors on dependent SLE occurs through personality (Bemmels et al., 2008; Kendler & Greenspan, 2006).

So the present study also provides relevant information by depicting some processes by which personality acts on psychopathology. Thus personality presents important direct effects to externalizing and internalizing spectra, but also indirect effects through dependent and independent SLE. Specifically, significant indirect effects were found between neuroticism and internalizing symptomatology, and also among neuroticism, extraversion, low agreeableness and low conscientiousness with the externalizing factor (Factor 2).

In addition to these mediation effects, moderation effects were also explored according to a diathesis-stress model. Overall, no interactions effects were found between SLE and personality to predict the broad factors of internalizing and externalizing symptoms. Some suggestive interaction were also found, such as independent SLE and neuroticism for predicting depression, or dependent SLE and low agreeableness for predicting antisocial behavior. However, the effects of this interaction did not remain significant when Bonferroni's correction was applied, which suggests that replication in other samples is clearly required to establish the robustness of these interaction effects.

The present research work generally indicates progress compared to previous studies because it systematically studies what types of SLE are more clearly associated with personality and what types of SLE are related to internalizing and externalizing psychopathology in an adolescent population. To date, the majority of the studies carried out on SLE have neither made a systematic and detailed classification of independent/dependent SLE nor used very specific outputs like depression or anxiety instead of internalizing and externalizing spectra.

In conclusion, this research work indicates that personality and SLE are associated with one another and predict the appearance of internalizing and externalizing psychological disorders in adolescence. On the one hand, independent SLE are directly associated with experiencing psychopathology in adolescence. On the other hand, personality influences the

probability of experiencing dependent SLE and, therefore, such events play a role as partial mediators in the relation between personality and psychopathology. Our data generally support the idea that there are distinct patterns for the relation between personality and SLE, which differentially explain the development of psychopathology.

Limitations

The present study has attempted to extend knowledge on how personality and dependent and independent SLE are related to one another in an adolescent population to explain internalizing and externalizing psychopathological symptoms. However, this study also has several limitations to consider.

First, our sample was composed of Spanish adolescents aged 11 to 18 years. Thus before generalizing the results (e.g., adults, no Spaniards), similar studies should be performed in other populations. Second, only the occurrence of SLE was herein considered, while other variables related to the occurrence of SLE (i.e., degree of subjective and objective negative impact) were not taken into account. Third, the study is cross-sectional so, although personality was expected to influence psychopathology by the model that obtained the best fit, psychopathology could influence changes in personality. Longitudinal studies would be necessary to rule out this alternative hypothesis. Fourth, the dependent and independent SLE classification was made by experts' judgment. Although the classification of some events is clear, e.g. "has your father died?" as being independent or "have you had a fight?" as being dependent, other SLE, such as "have you lost or been stolen something valuable to you?", are less clear. This, together with the fact that dependent and independent SLE, contrarily to that expected, were highly intercorrelated points out the need to refine the SLE classification. In addition, there are other possible ways to classify SLE, and not only according to their control or dependence. Thus for future studies, it would be advisable to take into account other

classifications and their combinations to be able to more accurately explore the possible association patterns between the variables herein studied.



[Discusión]

La presente tesis doctoral tiene dos objetivos principales. En primer lugar, desarrollar una lista de verificación de SLE (i.e., el LEIA) con propiedades psicométricas sólidas para evaluar eventos vitales estresantes en adolescentes españoles, siguiendo las principales recomendaciones propuestas en diferentes revisiones sobre el tema (Compas, 1987; Dohrenwend, 2006; Grant y cols., 2004; Hammen, 2005; Harkness y Monroe, 2016; Kessler, 1997; Rabkin y Struening, 1976; Turner y Wheaton, 1997; Zimmerman, 1983a). En segundo lugar, y una vez creado el inventario LEIA, procedimos a explorar la relación entre la personalidad, los distintos tipos de SLE (dependientes e independientes) y la psicopatología interiorizada y exteriorizada.

En relación a las evidencias sobre la fiabilidad de las puntuaciones del LEIA, los resultados del primer estudio mostraron un adecuado nivel de fiabilidad con más del 60% de los ítems del LEIA con un estadístico kappa de moderado a casi perfecto (Landis y Koch, 1977). Además, la mayoría de los SLE mostraron niveles de acuerdo porcentual superiores al 90%.

En referencia a las evidencias de validez, las correlaciones entre los puntajes EAV y LEIA fueron altas a muy altas, lo que indica una buena validez convergente. Además, la puntuación de cantidad de LEIA y la puntuación de gravedad objetiva de LEIA presentaron un patrón cuasi idéntico de asociaciones con EAV y todos los resultados de salud mental evaluados en

el presente estudio lo que respalda algunos hallazgos previos que indican que la diferencia entre contar el número de SLE y reajustar cada SLE usando pesos objetivos no es especialmente significativa (Zimmerman, 1983b).

Sin embargo, un hallazgo relevante del estudio es que diferentes procedimientos de puntuación presentaban diferencias pequeñas pero significativas en su asociación con síntomas psicopatológicos diferenciados. Así, la puntuación de gravedad subjetiva de LEIA presentó correlaciones significativamente más altas con todas las escalas de problemas interiorizados, mientras que la puntuación de cantidad y de gravedad objetiva de LEIA mostraron asociaciones más altas con todos los síntomas exteriorizados. Estos datos subrayan la importancia de tener en cuenta distintos procedimientos de puntuación de los SLE en función del tipo específico de sintomatología que se quiera examinar. De esta forma, el recuento del número de eventos vitales sería más adecuado al examinar los síntomas exteriorizados, mientras que las medidas que tienen en cuenta la afectación subjetiva, serían más apropiadas para la psicopatología interiorizada, de acuerdo con las teorías cognitivas de depresión y otros trastornos emocionales (Alloy y cols., 1999).

Otro hallazgo especialmente relevante es la importancia de tener en cuenta diferentes tipos de SLE a la hora de predecir los resultados de salud mental. Nuestros resultados mostraron diferencias importantes en el valor predictivo de los SLE cuando se consideraron las categorías graves-leves, dependiente-independiente e interpersonal-no interpersonal. En primer lugar, los *SLE leves* no mostraron relevancia en el desarrollo de problemas psicológicos, por lo que únicamente se consideraron los *SLE graves* o severos. De entre estos últimos, los SLE más relevantes para todo tipo de síntomas interiorizados fueron los *SLE no interpersonales independientes*, resultados que concuerdan con de los escasos estudios que han evaluado esta combinación de SLE (Rudolph y cols., 2000; Vrshek-Schallhorn y cols., 2015). Además, de acuerdo con la investigación previa, los *SLE interpersonales dependientes* tuvieron especial relevancia en la predicción de la depresión y de la ansiedad (Cohen y cols., 2013; Espina y

Calvete, 2017; Flynn y Rudolph, 2011; Hamilton y cols., 2013; Hankin y cols., 2010; Krakow y Rudolph, 2008; Rudolph y cols., 2000; Shapero y cols., 2013; Vrshek-Schallhorn y cols., 2015), mientras que los *SLE interpersonales independientes* no estaban asociados con ningún síntoma interiorizado (Flynn y cols., 2010; Rudolph y cols., 2000; Stange y cols., 2014). Sin embargo, un subgrupo de este tipo de eventos relacionados con la victimización por acoso escolar fueron predictivos de síntomas interiorizados y satisfacción con la vida, como se esperaba (Reijntjes y cols., 2010; Rigby, 2003).

En resumen, nuestro estudio ofrece hallazgos novedosos sobre la relación de SLE con sintomatología interiorizada, indicando que los *SLE independientes no interpersonales* fueron la tipología más relevante y a la vez, la menos estudiada tradicionalmente. Por otro lado, la tipología más estudiada, los *SLE interpersonales dependientes*, también se asociaron con resultados de salud mental, aunque en menor medida. Finalmente, solamente los *SLE interpersonales independientes* relacionados con la victimización por *bullying* fueron relevantes para la salud mental de los adolescentes.

El primer estudio también explora la relación entre SLE y los problemas exteriorizados. Del mismo modo que anteriormente, solo unos pocos estudios han examinado el papel de los SLE dependientes-independientes e interpersonales-no interpersonales en los problemas exteriorizados en adolescentes. Así, en nuestra muestra y de forma congruente con Rudolph y cols. (2000), los *SLE no interpersonales dependientes graves* y, en menor medida, los *SLE interpersonales dependientes graves* presentaron asociaciones relevantes con síntomas exteriorizados. También encontramos que los principales *SLE no interpersonales independientes* se asociaron significativamente con los espectros de exteriorización, aunque sus tamaños de efecto fueron de bajos a muy bajos.

Finalmente, el primer estudio también exploró la asociación de los SLE con aspectos positivos de la salud mental de los adolescentes, como la satisfacción vital (Diener y cols.,

1999), un tema extensamente explorado en la edad adulta (ver el metaanálisis de Luhmman y cols., 2012), pero en menor medida la adolescencia (McCullogh y cols., 2002). Nuestro estudio confirma que experimentar eventos negativos puede ejercer un impacto significativo en la satisfacción con la vida en la adolescencia (Ash y Huebner, 2001; Chappel y Ogg, 2014; McCullogh y cols., 2002; McNight y cols., 2002; Suldo y Huebner, 2004). Sin embargo, y hasta donde sabemos, ningún estudio previo ha examinado el papel de los diferentes tipos de SLE en la satisfacción con la vida o el bienestar subjetivo. Nuestros hallazgos sugieren que las experiencias negativas que afectan directamente al propio adolescente reducirían su satisfacción con la vida. Por el contrario, las experiencias negativas que les suceden a otros, o aquellas que los jóvenes hacen intencionalmente (generalmente conductas antinormativas y problemáticas), no parecen impactar muy fuertemente en su bienestar.

Por otra parte, y como hemos avanzado previamente, el objetivo del segundo estudio fue explorar los efectos aditivos, mediadores y moderadores de los SLE y la personalidad en la aparición de psicopatología interiorizada y exteriorizada en una muestra de adolescentes españoles.

En cuanto a la relación entre personalidad y psicopatología, encontramos que altos niveles de neuroticismo y bajos niveles de extraversión se relacionaron con mayores síntomas interiorizados, posiblemente porque el neuroticismo se asocia con mayores niveles de estrés y afecto negativo, así como con formas de afrontamiento menos adaptativas, aumentando así el riesgo de experimentar psicopatología (Mandelli y cols., 2015). Además, el neuroticismo se asoció con mayores problemas exteriorizados, consistentemente con estudios previos (Moya-Higueras y cols., 2014), junto con la baja amabilidad, baja responsabilidad y extraversión, también en línea con estudios previos (Etkin y cols., 2022; Kotov y cols., 2010; Mezquita y cols., 2015).

También se encontró que los *SLE independientes* se asociaron con mayor sintomatología interiorizada y la ocurrencia de *SLE dependientes* predijo principalmente problemas exteriorizados, pero también síntomas interiorizados, aunque en menor medida. Este hallazgo proporciona información importante sobre la asociación entre SLE y la psicopatología interiorizada/exteriorizada (ver March-Llanes y cols., 2017), al sugerir la posible existencia de algún grado de especificidad para diferentes tipos de SLE.

Con respecto a la relación entre la personalidad y SLE, la ocurrencia de *SLE independientes* no se relacionó con un aumento del neuroticismo como se planteó como hipótesis, sino que los altos niveles de neuroticismo sí se relacionaron con una mayor ocurrencia de *SLE independientes*. Este hallazgo podría indicar que el neuroticismo afectaría la forma en que se experimentan los SLE y/o a un sesgo a informar en mayor medida de su ocurrencia (Magnus y cols., 1993; Middeldorp y cols., 2008).

En el caso de los *SLE dependientes*, y de acuerdo con las hipótesis iniciales, el neuroticismo, la extraversión, la baja amabilidad y la baja responsabilidad se asociaron con una mayor ocurrencia de este tipo de SLE (Kandler y cols., 2012, Kendler y Greenspan, 2006). Por otro lado, estos resultados, junto con la evidencia que apoya que los *SLE dependientes* presentan una mayor heredabilidad que los independientes, sugiere que la influencia de los factores genéticos en los *SLE dependientes* se da a través de la personalidad (Bemmels y cols., 2008; Kendler y Greenspan, 2006).

En definitiva, este estudio también proporciona información relevante al describir algunos de los procesos por los cuales la personalidad actúa sobre la psicopatología. Así, la personalidad presenta importantes efectos directos en los espectros de exteriorización e interiorización, pero también efectos indirectos a través de los *SLE dependientes* e *independientes*. Específicamente, se encontraron efectos indirectos significativos entre el

neuroticismo y la sintomatología interiorizada; así como entre neuroticismo, extraversión, baja amabilidad y baja responsabilidad con el factor de exteriorización.

Además, también hemos explorado los efectos de moderación entre SLE y personalidad, según un modelo de diátesis-estrés. Aunque se encontraron algunas interacciones teóricamente sugerentes, como por ejemplo entre *SLE independientes* y neuroticismo en la predicción de depresión, o entre *SLE dependientes* y baja amabilidad en la predicción de comportamiento antisocial, cuando a estos efectos de interacción se les aplicó la corrección de Bonferroni no siguieron siendo significativos. En definitiva, no se encontraron efectos de interacción entre los SLE y la personalidad a la hora de predecir los factores generales de interiorización y exteriorización, aunque los hallazgos de algunas posibles interacciones recomendarían su exploración en estudios posteriores con el fin de establecer la robustez de estos potenciales y sugerentes efectos de moderación.

Limitaciones y líneas futuras

La presente tesis intenta ampliar el conocimiento sobre la evaluación de los SLE y de cómo la personalidad y los SLE se relacionan entre sí para predecir la aparición de sintomatología interiorizada y exteriorizada en población adolescente. Sin embargo, nuestros estudios también presentan ciertas limitaciones a tener en cuenta.

Existen algunas limitaciones comunes a ambos estudios. En ambos se utilizó un instrumento de cribado para evaluar los síntomas psicopatológicos, por lo que la generalización de los resultados a los trastornos mentales diagnosticados debe hacerse con precaución.

Otra limitación se refiere al rango de edad de la muestra. La muestra de ambos estudios presenta un rango de edad de 11 a 18 años, sin embargo, es posible que en población adulta la personalidad, los SLE dependientes e independientes y los síntomas psicopatológicos

interiorizados y exteriorizados se relacionen entre sí de manera diferente. Por tanto, una posible línea de futuro sería estudiar si las mismas asociaciones también se dan en población adulta.

Además, la clasificación de SLE en dependientes e independientes, y en interpersonal y no interpersonal en el primer estudio; y en dependientes e independientes en el segundo, se realizó por juicio de expertos. Por tanto, aunque la clasificación de algunos eventos es clara, existen ciertos SLE cuya clasificación resultó más compleja y menos clara. Esto, junto con el hecho de que los SLE dependientes e independientes, contrariamente a lo esperado, estaban altamente correlacionados entre sí, apunta a la necesidad de afinar su clasificación.

Una última limitación común es que el diseño del presente estudio fue transversal, por lo que no tenemos evidencia sobre la direccionalidad de la relación entre SLE, personalidad y psicopatología. Específicamente durante la adolescencia, los SLE pueden predecir, pero también pueden predecirse, por los espectros de exteriorización e interiorización (March-Llanes y cols., 2017). Además, aunque se espera que la personalidad influya en la psicopatología, también es posible que la psicopatología esté influyendo en los cambios de personalidad. Para descartar esta hipótesis alternativa serían necesarios estudios longitudinales.

En relación al estudio 1 y en concreto al contenido del instrumento LEIA, cabe señalar que la asociación de moderada a fuerte entre los SLE dependientes y los síntomas exteriorizados encontrada debe tomarse con precaución ya que existe cierto solapamiento de contenido entre los ítems del LEIA y las escalas de síntomas exteriorizados (Grant y cols., 2004; Harkness y Monroe, 2016; Turner y Wheaton, 1997). La mayoría de los SLE dependientes durante la adolescencia se refieren a conflictos interpersonales, problemas de conducta y comportamientos antinormativos que son también síntomas centrales de los problemas exteriorizados (Achenbach y Edelbrock, 1984; Young y cols., 2009). Una alternativa futura

sería controlar las características de personalidad que subyacen a ambos factores, como por ejemplo, la baja amabilidad o la baja responsabilidad (Mezquita y cols., 2015; Ruiz y cols., 2008; Shiner y cols., 2017). Por lo tanto, los estudios que incluyen la evaluación de los rasgos básicos de la personalidad podrían controlar este efecto. Este no es el caso de nuestro primer estudio, por lo que esta sería una interesante línea de investigación futura.

Una segunda limitación es que nuestros resultados se refieren únicamente a SLE episódicos, pero un estudio sistemático debería incluir otras formas de estrés, como el crónico (Kessler, 1997; Vrshek-Schallhorn y cols., 2015). Además, algunas fuentes importantes de estrés no se incluyeron en la LEIA debido a problemas para obtener los permisos de las familias y escolar, como los sucesos con contenido sexual o los estilos de crianza negativa (Gershoff y cols., 2002; McMaster y cols., 2002; Norman y cols., 2012; Repetti y cols., 2002; Tolan y cols., 2010).

Finalmente, en el segundo estudio tan solo nos centramos en el papel mediador y moderador de los SLE dependientes e independientes en la relación de la personalidad y la psicopatología. No obstante, existen otras formas posibles de clasificar los SLE, como hemos mostrado en el primer estudio. Además, y relacionado con esto, tan solo se tuvo en cuenta la ocurrencia de SLE, pero no la afectación. Por ello, futuros estudios deberían explorar la relación entre otras tipologías de SLE, así como de la valencia de estos a la hora de explorar la interrelación de los SLE y la personalidad a la hora de predecir los problemas interiorizados y exteriorizados.

Conclusión

Para concluir, el primer estudio presenta las propiedades psicométricas de una nueva lista de verificación para evaluar SLE durante la adolescencia. Hemos tratado de seguir los altos estándares de calidad en la evaluación de los índices de fiabilidad y validez, siguiendo propuestas de revisiones relevantes sobre el tema. Además, y hasta donde sabemos, LEIA es la primera lista de verificación de SLE que incluye la distinción de categorías grave o importante-leve, dependiente-independiente e interpersonal-no interpersonal en el proceso de validación. En consecuencia, LEIA mostró índices kappa y kappa ponderados de fiabilidad moderada y un porcentaje elevado de concordancia. En cuanto a los indicadores de validez, LEIA presentó una evidencia adecuada de validez convergente, como lo indican sus asociaciones elevadas con la EAV, y validez de criterio, según las relaciones con los síntomas psicopatológicos y la satisfacción con la vida. Además, el presente estudio muestra la pertinencia de evaluar tanto la cantidad de sucesos vitales como su valoración subjetiva, especialmente en relación con los síntomas exteriorizados e interiorizados, respectivamente. Pero más importante que el procedimiento de puntuación, es la distinción de diferentes tipos de SLE. Encontramos que los mejores predictores de los síntomas exteriorizados fueron los principales SLE dependientes, mientras que los principales SLE independientes no interpersonales y los principales SLE independientes interpersonales relacionados con la victimización por *bullying* fueron los mejores predictores de los síntomas interiorizados. La satisfacción con la vida siguió un patrón similar, aunque inverso, al que se encuentra en los síntomas interiorizados. Por lo tanto, nuestros datos sugieren que no todos los tipos de SLE son igualmente relevantes para la salud mental, de acuerdo con el estudio de Vrshek-Schallhorn y cols. (2015), y que los diferentes tipos de SLE pueden estar diferencialmente vinculados a una psicopatología específica. Creemos que estos son hallazgos prometedores que merecen más atención de investigación. En consecuencia, el uso de instrumentos que permitan evaluar

estas (y otras) tipologías de SLE sería de gran interés para el avance de la investigación en el campo de los SLE y de la salud mental y física. En resumen, diferentes fuentes de fiabilidad y validez avalan que LEIA es una lista de verificación adecuada para el cribado de diferentes tipos de sucesos vitales estresantes durante la adolescencia.

En relación al segundo estudio, este presenta un avance con respecto a los estudios previos ya que estudia de forma sistemática qué tipo de SLE son los que más se asocian a la personalidad y qué tipo de SLE son los que se relacionan con la psicopatología interiorizada y exteriorizada en población adolescente. Hasta el momento, gran parte de los estudios realizados en SLE no clasifican los SLE de forma sistemática y detallada en dependientes e independientes; tampoco utilizan los espectros de interiorización y exteriorización, sino que se focalizan en síntomas o trastornos concretos como depresión o ansiedad.

En conclusión, esta investigación indica que la personalidad y los SLE se asocian entre sí y predicen la aparición de síntomas interiorizados y exteriorizados en la adolescencia. Por un lado, los SLE independientes están directamente asociados con experimentar psicopatología en la adolescencia; mientras que la personalidad influye en la probabilidad de padecer SLE de tipo dependiente, por lo que este tipo de eventos ejercen un papel de mediadores parciales en la relación entre personalidad y psicopatología. En general, nuestros datos apoyan la idea de que existen diferentes patrones de relación entre la personalidad y los SLE, que explican diferencialmente el desarrollo de la psicopatología.



[Referencias]

Achenbach, T. M. (1966). The classification of children's psychiatric symptoms: A factor-analytic study. *Psychological Monographs: General and Applied*, 80(7), 1–37.
doi:10.1037/h0093906

Achenbach, T. M. (2011). Child Behavior Checklist. In *Encyclopedia of Clinical Neuropsychology* (pp. 546–552). Burlington.

Achenbach, T. M. (2020). Bottom-up and top-down paradigms for psychopathology: A half-century odyssey. *Annual Review of Clinical Psychology*, 16, 1–24.
doi:10.1146/annurev-clinpsy-071119-115831

Achenbach, T. M., & Edelbrock, C. S. (1978). The classification of child psychopathology: a review and analysis of empirical efforts. *Psychological bulletin*, 85(6), 1275.
doi:10.1037/0033-2909.85.6.1275

Achenbach, T. M., & Edelbrock, C. S. (1984). Psychopathology of childhood. *Annual review of psychology*, 35(1), 227-256. doi:10.1146/annurev.ps.35.020184.001303

Achenbach, T. M., & Rescorla, L. A. (2000). *Manual for the ASEBA Preschool Forms & Profiles*. Burlington, VT: University of Vermont, Research Center for Children, Youth, & Families.

- Achenbach, T. M., & Rescorla, L. A. (2001). *Manual for the ASEBA School-Age Forms & Profiles*. Burlington, VT: University of Vermont, Research Center for Children, Youth, & Families.
- Alloy, L. B., Abramson, L. Y., & Francis, E. L. (1999). Do negative cognitive styles confer vulnerability to depression?. *Current Directions in Psychological Science*, 8(4), 128-132. doi:10.1111/1467-8721.00030
- Andrews, G. (1981). A prospective study of life events and psychological symptoms. *Psychological Medicine*, 11(4), 795-801. doi:10.1017/S0033291700041295
- APA (2013). *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* (Fifth Edition). Washington, DC: American Psychiatric Association.
- Arias de la Torre, J., Molina, A. J., Fernández-Villa, T., Artazcoz, L., & Martín, V. (2019). Mental health, family roles and employment status inside and outside the household in Spain. *Gaceta sanitaria*, 33, 235-241. doi:10.1016/j.gaceta.2017.11.005
- Arnett, J. J. (1999). Adolescent storm and stress, reconsidered. *American psychologist*, 54, 317-326.
- Ash, C., & Huebner, E. S. (2001). Environmental events and life satisfaction reports of adolescents: A test of cognitive mediation. *School Psychology International*, 22(3), 320-336. doi:10.1177/0143034301223008
- Ashton, M. C. (2018). *Individual Differences and Personality*. Third Edition. Academic Press.
- Asselmann, E., & Specht, J. (2020). Taking the ups and downs at the rollercoaster of love: Associations between major life events in the domain of romantic relationships and the Big Five personality traits. *Developmental psychology*, 56(9), 1803. doi:10.1037/dev0001047

- Assmann, N., Schramm, E., Kriston, L., Hautzinger, M., Härter, M., Schweiger, U., & Klein, J. P. (2018). Moderating effect of comorbid anxiety disorders on treatment outcome in a randomized controlled psychotherapy trial in early-onset persistently depressed outpatients. *Depression and anxiety, 35*(10), 1001-1008. doi:10.1002/da.22839
- Atilola, O., Ola, B., Abiri, G., & Adewuya, A. O. (2018). Correlations between psychopathology and self-reported quality of life among adolescents in youth correctional facilities in Lagos, Nigeria: A short report. *Criminal Behaviour and Mental Health, 28*(1), 28-35. doi:10.1002/cbm.2042
- av Kák Kollsker, S., Coello, K., Stanislaus, S., Melbye, S., Lie Kjærstad, H., Stefanie Ormstrup Sletved, K., Kessing, L. V., & Vinberg, M. (2022). Association between lifetime and recent stressful life events and the early course and psychopathology in patients with newly diagnosed bipolar disorder, first-degree unaffected relatives and healthy controls: Cross-sectional results from a prospective study. *Bipolar disorders, 24*(1), 59-68. doi:10.1111/bdi.13093
- Bacigalupe, A., Cabezas, A., Bueno, M. B., & Martín, U. (2020). El género como determinante de la salud mental y su medicalización. Informe SESPAS 2020. *Gaceta sanitaria, 34*, 61-67. doi:10.1016/j.gaceta.2020.06.013
- Barlow, D. H., Ellard, K. K., Sauer-Zavala, S., Bullis, J. R., & Carl, J. R. (2014). The origins of neuroticism. *Perspectives on Psychological Science, 9*(5), 481-496. doi:10.1177/1745691614544528
- Beards, S., Gayer-Anderson, C., Borges, S., Dewey, M. E., Fisher, H. L., & Morgan, C. (2013). Life events and psychosis: a review and meta-analysis. *Schizophrenia bulletin, 39*(4), 740-747. doi:10.1093/schbul/sbt065

- Becker, L. A., (1999). *Effect Size Calculators*. University of Colorado Springs.
<http://www.uccs.edu/~lbecker/>.
- Bemmels, H. R., Burt, S. A., Legrand, L. N., Iacono, W. G., & McGue, M. (2008). The heritability of life events: an adolescent twin and adoption study. *Twin Research and Human Genetics, 11*(3), 257–65. doi:10.1375/twin.11.3.257
- Bendayan, R., Blanca, M. J., Fernandez-Baena, J. F., Escobar, M., & Trianes, M. V. (2013). New empirical evidence on the validity of the Satisfaction with Life Scale in early adolescents. *European Journal of Psychological Assessment, 29*(1), 36.
doi:10.1027/1015-5759/a000118
- Billig, J. P., Hershberger, S. L., Iacono, W. G., & McGue, M. (1996). Life events and personality in late adolescence: Genetic and environmental relations. *Behavior Genetics, 26*(6), 543–554. doi:10.1007/BF02361227
- Bleidorn, W., Hopwood, C. J., Back, M. D., Denissen, J. J., Hennecke, M., Jokela, M., Kandler, C., Lucas, R. E., Luhman, M., Orth, U., Roberts, B. W., Wagner, J., Wrzus, C. & Zimmermann, J. (2020). Longitudinal experience-wide association studies—A framework for studying personality change. *European Journal of Personality, 34*(3), 285-300. doi:10.1002/per.2247
- Bleidorn, W., Hopwood, C. J., & Lucas, R. E. (2018). Life events and personality trait change. *Journal of personality, 86*(1), 83-96. doi:10.1111/jopy.12286
- Boyle, G. J., Matthews, G., & Saklofske, D. H. (2008). Personality theories and models: An overview. In G. J. Boyle, G. Matthews, & D. H. Saklofske (Eds.), *The SAGE handbook of personality theory and assessment, Vol. 1. Personality theories and models* (pp. 1–29). Sage Publications, Inc.

- Brown, G. W., & Harris, T. (1978). Social origins of depression: a reply. *Psychological medicine*, 8(4), 577-588. doi:10.1017/S0033291700018791
- Brugha, T. S., & Cragg, D. (1990). The list of threatening experiences: the reliability and validity of a brief life events questionnaire. *Acta Psychiatrica Scandinavica*, 82(1), 77-81. doi:10.1111/j.1600-0447.1990.tb01360.x
- Calvete, E., Villardón, L., Estévez, A., & Espina, M. (2007). La desesperanza como vulnerabilidad cognitiva al estrés: adaptación del cuestionario de estilo cognitivo para adolescentes. *Ansiedad y estrés*, 13(2-3), 215-227.
- Carragher, N., Teesson, M., Sunderland, M., Newton, N. C., Krueger, R. F., Conrod, P. J., Barrett, E. L., Champion, K. E., Nair, N. K., & Slade, T. (2016). The structure of adolescent psychopathology: A symptom-level analysis. *Psychological Medicine*, 46(5), 981–994. doi:10.1017/S0033291715002470
- Casey, B. J., Jones, R. M., & Hare, T. A. (2008). The adolescent brain. *Annals of the New York Academy of Sciences*, 1124(1), 111-126. doi:10.1196/annals.1440.010
- Casey, B. J., Oliveri, M. E., & Insel, T. (2014). A neurodevelopmental perspective on the research domain criteria (RDoC) framework. *Biological psychiatry*, 76(5), 350-353. doi:10.1016/j.biopsych.2014.01.006
- Caspi, A., Hariri, A. R., Holmes, A., Uher, R., & Moffitt, T. E. (2010). Genetic sensitivity to the environment: The case of the serotonin transporter gene and its implications for studying complex diseases and traits. *American Journal of Psychiatry*, 167(5), 509-527. doi:10.1176/appi.ajp.2010.09101452

- Caspi, A., Sugden, K., Moffitt, T. E., Taylor, A., Craig, I. W., Harrington, H., McClay, J., Mill, J., Martin, J., Braithwaite, A., & Poulton, R. (2003). Influence of life stress on depression: Moderation by a polymorphism in the 5-HTT gene. *Science*, *301*(5631), 386-389. doi:10.1126/science.1083968
- Catalá-López, F., Gènova-Maleras, R., Álvarez-Martín, E., de Larrea-Baz, N. F., & Morant-Ginestar, C. (2013). Carga de enfermedad en adolescentes y jóvenes en España. *Revista de psiquiatría y salud mental*, *6*(2), 80-85. doi:10.1016/j.rpsm.2012.07.002
- Chappel, A. M., Suldo, S. M., & Ogg, J. A. (2014). Associations between adolescents' family stressors and life satisfaction. *Journal of Child and Family Studies*, *23*(1), 76-84. doi:10.1007/s10826-012-9687-9
- Clark, C., Rodgers, B., Caldwell, T., Power, C., & Stansfeld, S. (2007). Childhood and adulthood psychological ill health as predictors of midlife affective and anxiety disorders: The 1958 British birth cohort. *Archives of General Psychiatry*, *64*(6), 668-678. doi:10.1001/archpsyc.64.6.668
- Clarke, T.-K., Zeng, Y., Navrady, L., Xia, C., Haley, C., Campbell, A., Navarro, P., Amador, C., Adams, M. J., Howard, D. M., Soler, A., Hayward, C., Thomson, P. A., Smith, B. H., Padmanabhan, S., Hocking, L. J., Lynsey, S. H., Porteous, P. J., Deary, J. J., & McIntosh, A. M. (2018). Genetic and environmental determinants of stressful life events and their overlap with depression and neuroticism. *Wellcome Open Research*, *3*, 11. doi:10.12688/wellcomeopenres.13893.1
- Clements, K., & Turpin, G. (1996). The life events scale for students: Validation for use with British samples. *Personality and Individual Differences*, *20*(6), 573-576. doi:10.1016/0191-8869(96)00005-0

- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 155–159.
- Cohen, J. R., Hankin, B. L., Gibb, B. E., Hammen, C., Hazel, N. A., Ma, D., Yao, S., Zhu, X. Z., & Abela, J. R. Z. (2013). Negative attachment cognitions and emotional distress in mainland Chinese adolescents: A prospective multiwave test of vulnerability-stress and stress generation models. *Journal of Clinical Child & Adolescent Psychology*, 42(4), 531-544. doi:10.1080/15374416.2012.749787
- Cole, M. G., & Dendukuri, N. (2003). Risk factors for depression among elderly community subjects: a systematic review and meta-analysis. *American journal of psychiatry*, 160(6), 1147-1156. doi:10.1176/appi.ajp.160.6.1147
- Compas, B. E. (1987). Stress and life events during childhood and adolescence. *Clinical Psychological Review*, 7(3), 275-302. doi:10.1016/0272-7358(87)90037-7
- Compas, B. E., Davis, G. E., Forsythe, C. J., & Wagner, B. M. (1987). Assessment of major and daily stressful events during adolescence: The Adolescent Perceived Events Scale. *Journal of Consulting and Clinical Psychology*, 55(4), 534-541. doi:10.1037/0022-006X.55.4.534
- Conners, C. K. (2008). *CONNERS. Comprehensive Behavior Rating Scales*. Toronto, ON: Multi-Health Systems.
- Conway, C. C., Hammen, C., & Brennan, P. A. (2012). Expanding stress generation theory: Test of a transdiagnostic model. *Journal of Abnormal Psychology*, 121(3), 754-766. doi:10.1037/a0027457
- Copeland, W. E., Shanahan, L., Costello, E. J., & Angold, A. (2009). Childhood and adolescent psychiatric disorders as predictors of young adult disorders? *Archives of General Psychiatry*, 66(7), 764-772. doi:10.1001/archgenpsychiatry.2009.85

- Corr, P. J. (2004). Reinforcement sensitivity theory and personality. *Neuroscience & Biobehavioral Reviews*, 28(3), 317-332. doi:10.1016/j.neubiorev.2004.01.005
- Cosgrove, V. E., Rhee, S. H., Gelhorn, H. L., Boeldt, D., Corley, R. C., Ehringer, M. A., & Hewitt, J. K. (2011). Structure and etiology of co-occurring internalizing and externalizing disorders in adolescents. *Journal of abnormal child psychology*, 39(1), 109-123. doi:10.1007/s10802-010-9444-8
- Costa, P.T. & McCrae, R.R. (1992). *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five Factor Model (NEO-FFI) professional manual*. Odessa, FL: Psychological Assessment Resources
- Costa Jr, P. T., McCrae, R. R., & Martin, T. A. (2008). Incipient adult personality: The NEO-PI-3 in middle-school-aged children. *British Journal of Developmental Psychology*, 26(1), 71-89. doi:10.1348/026151007X196273
- Covault, J., Tennen, H., Armeli, S., Conner, T. S., Herman, A. I., Cillessen, A. H. N., & Kranzler, H. R. (2007). Interactive effects of the serotonin transporter 5-HTTLPR polymorphism and stressful life events on college student drinking and drug use. *Biological Psychiatry*, 61(5), 609-616. doi:10.1016/j.biopsych. 2006.05.018
- Crego, C., Sleep, C. E., & Widiger, T. A. (2016). Clinicians' judgments of the clinical utility of personality disorder trait descriptions. *The Journal of nervous and mental disease*, 204(1), 49-56. doi:10.1097/NMD.0000000000000424
- Crone, E. A., & Dahl, R. E. (2012). Understanding adolescence as a period of social-affective engagement and goal flexibility. *Nature Reviews Neuroscience*, 13(9), 636-650. doi:10.1038/nrn3313

- Cummings, C. M., Caporino, N. E., & Kendall, P. C. (2014). Comorbidity of anxiety and depression in children and adolescents: 20 years after. *Psychological bulletin*, 140(3), 816-825. doi:10.1037/a0034733.
- Cuthbert, B. N. (2014). The RDoC framework: facilitating transition from ICD/DSM to dimensional approaches that integrate neuroscience and psychopathology. *World Psychiatry*, 13(1), 28-35. doi:10.1002/wps.20087
- Daly, M. (2022). Prevalence of depression among adolescents in the US from 2009 to 2019: analysis of trends by sex, race/ethnicity, and income. *Journal of Adolescent Health*, 70(3), 496-499. doi:10.1016/j.jadohealth.2021.08.026
- Dawson, J. F. (2014). Moderation in management research: What, why, when, and how. *Journal of business and psychology*, 29(1), 1-19. doi:10.1007/s10869-013-9308-7
- Deal, J. E., Halverson Jr, C. F., Martin, R. P., Victor, J., & Baker, S. (2007). The Inventory of Children's Individual Differences: Development and validation of a short version. *Journal of personality assessment*, 89(2), 162-166. doi:10.1080/00223890701468550
- Degenhardt, L., Whiteford, H.A., & Ferrari, A.J. (2013). Global burden of disease attributable to illicit drug use and dependence: findings from the Global Burden of Disease Study 2010. *Lancet*, 384(9904), 1564-74. doi:10.1016/S0140-6736(13)61530-5
- Denissen, J. J., Luhmann, M., Chung, J. M., & Bleidorn, W. (2019). Transactions between life events and personality traits across the adult lifespan. *Journal of Personality and Social Psychology*, 116(4), 612. doi:10.1037/pspp0000196

- Denissen, J. J. A., van Aken, M. A. G., Penke, L., & Wood, D. (2013). Self-regulation underlies temperament and personality: An integrative developmental framework. *Child Development Perspectives, 7*(4), 255-260. doi:10.1111/cdep.12050
- De Bolle, M., Beyers, W., De Clercq, B., & De Fruyt, F. (2012). General personality and psychopathology in referred and non-referred children and adolescents: An investigation of continuity, pathoplasty, and complication models. *Journal of Abnormal Psychology, 121*(4), 958–970. doi:10.1037/a0027742
- De Clercq, B., & De Fruyt, F. (2003). Personality disorder symptoms in adolescence: A five-factor model perspective. *Journal of Personality Disorders, 17*(4), 269. doi:10.1521/pedi.17.4.269.23972
- De Fruyt, F., Mervielde, I., Hoekstra, H. A., & Rolland, J. P. (2000). Assessing adolescents' personality with the NEO PI-R. *Assessment, 7*(4), 329–345. doi:10.1177/107319110000700403
- De Pauw, S. S. (2017). Childhood personality and temperament. *The Oxford handbook of the five factor model, 243-280.*
- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin, 125*(2), 276-302. doi:10.1037/0033-2909.125.2.276
- Digman, J. M. (1990). Personality structure: Emergence of the five-factor model. *Annual review of psychology, 41*(1), 417-440. doi:10.1146/annurev.ps.41.020190.002221
- Dohrenwend, B. P. (2006). Inventorying stressful life events as risk factors for psychopathology: Toward resolution of the problem of intracategory variability. *Psychological Bulletin, 132*(3), 477-495. doi:10.1037/0033-2909.132.3.477

- Doyle, M.M., Murphy, J. & Shevlin, M. (2016). Competing Factor Models of Child and Adolescent Psychopathology. *J Abnorm Child Psychol* 44(8), 1559–1571. doi:10.1007/s10802-016-0129-9
- Duggal, S., Malkoff-Schwartz, S., Birmaher, B., Anderson, B. P., Matty, M. K., Houck, P. R., Bailey-Orr, M., Williamson, D.E., & Frank, E. (2000). Assessment of life stress in adolescents: Self-report versus interview methods. *Journal of the American Academy of Child & Adolescent Psychiatry*, 39(4), 445-452. doi:10.1097/00004583-200004000-00013
- Eaton, N. R., Krueger, R. F., Markon, K. E., Keyes, K. M., Skodol, A. E., Wall, M., Hasin, D. S., & Grant, B. F. (2013). The structure and predictive validity of the internalizing disorders. *Journal of Abnormal Psychology*, 122(1), 86–92. doi:10.1037/a0029598
- Eaton, N.R., South, S.C., & Krueger, R.F. (2010) The meaning of comorbidity among common mental disorders. In Millon, T, Krueger, RF & Simonsen (Eds) *Contemporary Directions in Psychopathology* (pp. 223–41). Guilford Publications.
- Echeburúa, E., Salaberría, K., & Cruz-Sáez, M. (2014). Aportaciones y limitaciones del DSM-5 desde la Psicología Clínica. *Terapia psicológica*, 32(1), 65-74. doi:10.4067/S0718-48082014000100007
- Efron, B., & Tibshirani, R. J. (1994). *An introduction to the bootstrap*. CRC press.
- Erskine, H. E., Moffitt, T. E., Copeland, W. E., Costello, E. J., Ferrari, A. J., Patton, G., & Scott, J. G. (2015). A heavy burden on young minds: the global burden of mental and substance use disorders in children and youth. *Psychological medicine*, 45(7), 1551. doi:10.1017/S0033291714002888

- Espejo, E. P., Hammen, C., & Brennan, P. A. (2012). Elevated appraisals of the negative impact of naturally occurring life events: A risk factor for depressive and anxiety disorders. *Journal of Abnormal Child Psychology*, 40(2), 303-315.
doi:10.1007/s10802-011-9552-0
- Espina, M., & Calvete, Y. E. (2017). Estilos de afrontamiento y generación de estrés interpersonal en adolescentes. *Revista de Psicopatología y Psicología Clínica*, 22(1), 21-32. doi:10.5944/rppc.vol.22.num.1.2017.16825
- Etkin, P., Ibáñez, M. I., Ortet, G., & Mezquita, L. (2022). Longitudinal Associations Between the Five-Factor Model of Personality and The Bi-Factor Model of Psychopathology: Continuity, Pathoplasty and Complication Effects in Adolescents. *Journal of Psychopathology and Behavioral Assessment*, 44(2), 405-417. doi:10.1007/s10862-021-09903-1
- Etkin, P., Mezquita, L., López-Fernández, F. J., Ortet, G., & Ibáñez, M. I. (2020). Five Factor model of personality and structure of psychopathological symptoms in adolescents. *Personality and Individual Differences*, 163, 110063.
doi:10.1016/j.paid.2020.110063
- Eysenck, H. J. (1989). El lugar de las diferencias individuales en la psicología científica. *Estudios de Psicología*, 10(39-40), 159-206.
doi:10.1080/02109395.1989.10821126
- Eysenck, H. J. (1992). A reply to Costa and McCrae. P or A and C—the role of theory. *Personality and Individual Differences*, 13(8), 867-868. doi:10.1016/0191-8869(92)90003-8
- Eysenck, H.J. y Eysenck, M.W. (1985). *Personality and Individual Differences*. Nueva York: Plenum Press.

- Ferreira, E., Granero, R., Noorian, Z., Romero, K., & Domènech Llaberia, E. (2012). Acontecimientos vitales y sintomatología depresiva en población adolescente. *Revista de Psicopatología y Psicología Clínica, 17*(2), 123-136. doi:10.5944/rppc.vol.17.num.2.2012.11209
- Fleiss, J., Levin, B., & Cho, M. (2003). *Statistical methods for rates and proportions* (3rd ed.). New York, NY: Wiley.
- Flouri, E., & Kallis, C. (2011). Adverse life events and mental health in middle adolescence. *Journal of Adolescence, 34*(2), 371–377. doi:10.1016/j.adolescence.2010.04.001
- Flynn, M., Kecmanovic, J., & Alloy, L. B. (2010). An examination of integrated cognitive-interpersonal vulnerability to depression: The role of rumination, perceived social support, and interpersonal stress generation. *Cognitive Therapy and Research, 34*(5), 456-466. doi:10.1007/s10608-010-9300-8
- Flynn, M., & Rudolph, K. D. (2011). Stress generation and adolescent depression: Contribution of interpersonal stress responses. *Journal of Abnormal Child Psychology, 39*(8), 1187- 1198. doi:10.1007/s10802-011-9527-1
- Forbes, M. K., Rapee, R. M., & Krueger, R. F. (2019). Opportunities for the prevention of mental disorders by reducing general psychopathology in early childhood. *Behaviour Research and Therapy, 119*, 103411. doi:10.1016/j.brat.2019.103411
- Forbush, K. T., South, S. C., Krueger, R. F., Iacono, W. G., Clark, L. A., Keel, P. K., Legrand, L. N., & Watson, D. (2010). Locating eating pathology within an empirical diagnostic taxonomy: Evidence from a community-based sample. *The Journal of Abnormal Psychology, 119*(2), 282–292. doi:10.1037/a0019189

- Fritz, M. S., & MacKinnon, D. P. (2007). Required sample size to detect the mediated effect. *Psychological science*, *18*(3), 233-239. doi:10.1111/j.1467-9280.2007.01882.x
- Fröjd, S., Kaltiala-Heino, R., Pelkonen, M., Von Der Pahlen, B., & Marttunen, M. (2009). Significance of family life events in middle adolescence: A survey on Finnish community adolescents. *Nordic Journal of Psychiatry*, *63*(1), 78-86. doi:10.1080/08039480802533754
- Galindez, E., & Casas, F. (2010). Adaptación y validación de la Students' Life Satisfaction Scale (SLSS) con adolescentes. *Estudios de Psicología*, *31*(1), 79-87. doi:10.1174/021093910790744617
- Gee, D. G., & Casey, B. J. (2015). The impact of developmental timing for stress and recovery. *Neurobiology of Stress*, *1*(1), 184-194. doi:10.1016/j.ynstr.2015.02.001
- Gershoff, E. T. (2002). Corporal punishment by parents and associated child behaviors and experiences: A meta-analytic and theoretical review. *Psychological Bulletin*, *128*(4), 539-579. doi:10.1037/0033-2909.128.4.539
- Gilbert, R., Widom, C. S., Browne, K., Fergusson, D., Webb, E., & Janson, S. (2009). Burden and consequences of child maltreatment in high-income countries. *Lancet*, *373* (9657), 68-81. doi:10.1016/S0140-6736(08)61706-7
- Gilman, S. E., Kawachi, I., Fitzmaurice, G. M., & Buka, S. L. (2003). Socio-economic status, family disruption and residential stability in childhood: relation to onset, recurrence and remission of major depression. *Psychological medicine*, *33*(8), 1341-1355. doi:10.1017/S0033291703008377

- Global Burden of Disease 2019 Mental Disorders Collaborators. (2022). Global, regional, and national burden of 12 mental disorders in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. *The Lancet Psychiatry*, 9(2), 137-150. doi:10.1016/S2215-0366(21)00395-3
- Goldberg, L. R. (1993). The structure of phenotypic personality traits. *American psychologist*, 48(1), 26-34.
- González de Rivera, J. L., & Morera Fumero, A. (1983). La valoración de sucesos vitales: Adaptación española de la escala de Holmes y Rahe. *Psiquis*, 4(1), 7-11.
- Grant, K. E., Compas, B. E., Thurm, A. E., McMahon, S. D., & Gipson, P. Y. (2004). Stressors and child and adolescent psychopathology: Measurement issues and prospective effects. *Journal of Clinical Child & Adolescent Psychology*, 33(2), 412-425. doi:10.1207/s15374424jccp3302_23
- Gray, M. J., Litz, B. T., Hsu, J. L., & Lombardo, T. W. (2004). Psychometric properties of the life events checklist. *Assessment*, 11(4), 330-341. doi:10.1177/1073191104269954
- Gray, J.A., & McNaughton, N.J. (2000). *The Neuropsychology of Anxiety*. Oxford Medical Publications, Oxford
- Groh, A. M., Roisman, G. I., van Ijzendoorn, M. H., Bakermans-Kranenburg, M. J., & Fearon, R. P. (2012). The significance of insecure and disorganized attachment for children's internalizing symptoms: A meta-analytic study. *Child development*, 83(2), 591-610. doi:10.1111/j.1467-8624.2011.01711.x
- Hamilton, J. L., Stange, J. P., Kleiman, E. M., Hamlat, E. J., Abramson, L. Y., & Alloy, L. B. (2014). Cognitive vulnerabilities amplify the effect of early pubertal timing on

interpersonal stress generation during adolescence. *Journal of Youth and Adolescence*, 43(5), 824-833. doi:10.1007/s10964-013-0015-5

Hammen, C. (1991). Generation of stress in the course of unipolar depression. *Journal of Abnormal Psychology*, 100(4), 555-561.

Hammen, C. (2003). Interpersonal stress and depression in women. *Journal of affective disorders*, 74(1), 49-57. doi:10.1016/S0165-0327(02)00430-5

Hammen, C. (2005). Stress and depression. *Annual Reviews in Clinical Psychology*, 1(1), 293-319. doi:10.1146/annurev.clinpsy.1.102803.143938

Hampson, S. E., Edmonds, G. W., Goldberg, L. R., Dubanoski, J. P., & Hillier, T. A. (2015). A life-span behavioral mechanism relating childhood conscientiousness to adult clinical health. *Health Psychology*, 34(9), 887. doi:10.1037/hea0000209

Hankin, B. L., Stone, L., & Wright, P. A. (2010). Corumination, interpersonal stress generation, and internalizing symptoms: Accumulating effects and transactional influences in a multiwave study of adolescents. *Development and Psychopathology*, 22(1), 217-235. doi:10.1017/S0954579409990368

Harkness, K. L., & Monroe, S. M. (2016). The assessment and measurement of adult life stress: Basic premises, operational principles, and design requirements. *Journal of Abnormal Psychology*, 125(5), 727-745. doi:10.1037/abn0000178

Harkness, K. L., & Stewart, J. G. (2009). Symptom specificity and the prospective generation of life events in adolescence. *Journal of Abnormal Psychology*, 118(2), 278-287. doi:10.1037/a0015749

Hartung, C. M., & Lefler, E. K. (2019). Sex and gender in psychopathology: DSM–5 and beyond. *Psychological Bulletin*, 145(4), 390–409. doi:10.1037/bul0000183

Hatoum, A. S., Rhee, S. H., Corley, R. P., Hewitt, J. K., & Friedman, N. P. (2018). Etiology of Stability and Growth of Internalizing and Externalizing Behavior Problems Across Childhood and Adolescence. *Behavior Genetics*, 48(4), 298–314.

doi:10.1007/s10519-018-9900-8

Hazel, N. A., Hammen, C., Brennan, P. A., & Najman, J. (2008). Early childhood adversity and adolescent depression: the mediating role of continued stress. *Psychological medicine*, 38(4), 581-589. doi:10.1017/S0033291708002857

Headey, B., & Wearing, A. (1989). Personality, life events, and subjective well-being: Toward a dynamic equilibrium model. *Journal of Personality and Social Psychology*, 57(4), 731–739. doi:10.1037/0022-3514.57.4.731

Henares, J., Ruiz-Pérez, I., & Sordo, L. (2020). Salud mental en España y diferencias por sexo y por comunidades autónomas. *Gaceta Sanitaria*, 34, 114-119.

doi:10.1016/j.gaceta.2019.03.002

Hengartner, M. P., van der Linden, D., Bohleber, L., & von Wyl, A. (2017). Big five personality traits and the general factor of personality as moderators of stress and coping reactions following an emergency alarm on a Swiss university campus. *Stress and Health*, 33(1), 35-44. doi:10.1002/smi.2671

Hicks, B. M., Krueger, R. F., Iacono, W. G., McGue, M., & Patrick, C. J. (2004). Family transmission and heritability of externalizing disorders: a twin-family study. *Archives of general psychiatry*, 61(9), 922-928. doi:10.1001/archpsyc.61.9.922

Holder, M. K., & Blaustein, J. D. (2014). Puberty and adolescence as a time of vulnerability to stressors that alter neurobehavioral processes. *Frontiers in Neuroendocrinology*, 35(1), 89-110. doi:10.1016/j.yfrne.2013.10.004

- Hollenstein, T., & Loughheed, J. P. (2013). Beyond storm and stress: Typicality, transactions, timing, and temperament to account for adolescent change. *American Psychologist*, *68*(6), 444-454. doi:10.1037/a0033586
- Holmes, T. H., & Rahe, R. H. (1967). The social readjustment rating scale. *Journal of Psychosomatic Research*, *11*(2), 213-218. doi:10.1016/0022-3999(67)90010-4
- Holtzman, C. W., Trotman, H. D., Goulding, S. M., Ryan, A. T., MacDonald, A. N., Shapiro, D. I., Brasfiels, J. L. & Walker, E. F. (2013). Stress and neurodevelopmental processes in the emergence of psychosis. *Neuroscience*, *249*, 172-191. doi:10.1016/j.neuroscience.2012.12.017
- Huebner, E. S. (1991). Initial development of the Student's Life Satisfaction Scale. *School Psychology International*, *12*(3), 231-240. doi:10.1177/0143034391123010
- Huebner, E. S. (2004). Research on assessment of life satisfaction of children and adolescents. *Social Indicators Research*, *66*(1), 3-33. doi:10.1023/B:SOCI.0000007497.57754.e3
- Hutteman, R., Hennecke, M., Orth, U., Reitz, A. K., & Specht, J. (2014). Developmental tasks as a framework to study personality development in adulthood and old age. *European Journal of Personality*, *28*(3), 267-278. doi:10.1002/per.1959
- Ibáñez, M. I., Viruela, A. M., Mezquita, L., Moya, J., Villa, H., Camacho, L., & Ortet, G. (2016). An investigation of five types of personality trait continuity: A two-wave longitudinal study of Spanish adolescents from age 12 to age 15. *Frontiers in Psychology*, *7*, 1-7. doi:10.3389/fpsyg.2016.00512
- Jeronimus, B. F., Ormel, J., Aleman, A., Penninx, B. W., & Riese, H. (2013). Negative and positive life events are associated with small but lasting change in

neuroticism. *Psychological medicine*, 43(11), 2403-2415.

doi:10.1017/S0033291713000159

Jeronimus, B. F., Riese, H., Sanderman, R., & Ormel, J. (2014). Mutual reinforcement between neuroticism and life experiences: a five-wave, 16-year study to test reciprocal causation. *Journal of personality and social psychology*, 107(4), 751.

doi:10.1037/a0037009

John, O. P., Naumann, L. P., & Soto, C. J. (2008). Paradigm shift to the integrative Big Five trait taxonomy: History, measurement, and conceptual issues. En O.P. John, R.W. Robins y L.A. Pervin (Eds), *Handbook of personality: Theory and research* (3rd ed.). New York, NY: Guilford Press.

John, O.P. y Srivastava, S. (1990). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. En L.A. Pervin (Ed.), *Handbook of personality: Theory and research* (2ª ed.)(pp. 102-138). Nueva York: Guilford Press.

Johnson, D. P., Rhee, S. H., Whisman, M. A., Corley, R. P., & Hewitt, J. K. (2013). Genetic and environmental influences on negative life events from late childhood to adolescence. *Child Development*, 84(5), 1823-1839. doi:10.1111/cdev.12055

Johnson, J., & McCutcheon, S. (1980). Assessing life stress in children and adolescents: Preliminary findings with the Life Events Checklist. In I. G. Sarason & C. D. Spielberger (Eds.), *Stress and anxiety* (pp. 111-126). Washington, DC: Hemisphere.

Kandler, C., Bleidorn, W., Riemann, R., Angleitner, A., & Spinath, F. M. (2012). Life events as environmental States and genetic traits and the role of personality: a longitudinal twin study. *Behavior Genetics*, 42(1), 57-72. doi:10.1007/s10519-011-9491-0

- Kandler, C., Bleidorn, W., Riemann, R., Spinath, F. M., Thiel, W., & Angleitner, A. (2010). Sources of cumulative continuity in personality: A longitudinal multiple-rater twin study. *Journal of Personality and Social Psychology, 98*(6), 995–1008.
doi:10.1037/a0019558
- Kanner, A. D., Coyne, J. C., Schaefer, C., & Lazarus, R. S. (1981). Comparison of two modes of stress measurement: Daily hassles and uplifts versus major life events. *Journal of Behavioral Medicine, 4*(1), 1-39. doi:10.1007/BF00844845
- Kendler, K. (1997). Social support: a genetic-epidemiologic analysis. *American Journal of Psychiatry, 154*(10), 1398-1404. doi:10.1176/ajp.154.10.1398
- Kendler, K., & Baker, J. H. (2007). Genetic influences on measures of the environment: A systematic review. *Psychological Medicine, 37*(5), 615-626.
doi:10.1017/S0033291706009524
- Kendler, K., & Greenspan, R. (2006). The nature of genetic influences on behavior: Lessons from “simpler” organisms. *American Journal of Psychiatry, 163*(10), 1683-1694.
doi:10.1017/S0033291706009524
- Kendler, K., Kessler, R. C., Walters, E. E., MacLean, C., Neale, M. C., Heath, A. C., & Eaves, L. J. (1995). Stressful life events, genetic liability, and onset of an episode of major depression in women. *American Journal of Psychiatry, 152*, 833-842.
doi:10.1176/ajp.152.6.833
- Kendler, K. S., Kuhn, J., & Prescott, C. A. (2004). The interrelationship of neuroticism, sex, and stressful life events in the prediction of episodes of major depression. *American Journal of Psychiatry, 161*(4), 631-636. doi:10.1176/appi.ajp.161.4.631

- Kendler, K., Neale, M., Kessler, R., Heath, A., & Eaves, L. (1993). A twin study of recent life events and difficulties. *Archives of General Psychiatry*, *50*(10), 789-796.
doi:10.1001/archpsyc.1993.01820220041005
- Kendler, K., Prescott, C.A., Myers, J. & Neale, M.C. (2003). The structure of genetic and environmental risk factors for common psychiatric and substance use disorders in men and women. *Archives of General Psychiatry*, *60*(9), 929-937.
doi:10.1001/archpsyc.60.9.929
- Kercher, A. J., Rapee, R. M., & Schniering, C. A. (2009). Neuroticism, Life Events and Negative Thoughts in the Development of Depression in Adolescent Girls. *Journal of Abnormal Child Psychology*, *37*(7), 903–915. doi:10.1007/s1080200993251
- Kessler, R. C. (1997). The effects of stressful life events on depression. *Annual Review of Psychology*, *48*(1), 191-214. doi:10.1146/annurev.psych.48.1.191
- Kessler, R. C., McLaughlin, K. A., Green, J. G., Gruber, M. J., Sampson, N. A., Zaslavsky, A. M., Aguilar-Gaxiola, S., Alhamzawi, A. O., Alonso, J., Angermeyer, M., Beniet, C., Bromet, E., Chetterii, S., de Girolamo, G., Demyttenaere, K., Fayyad, J., Florescu, S., Gal, G., Gureie, O., ... Williams, D. R. (2010). Childhood adversities and adult psychopathology in the WHO world mental health surveys. *British Journal of Psychiatry*, *197*(5), 378-385. doi:10.1192/bjp.bp.110.080499
- Kessler, R. C., Ormel, J., Petukhova, M., McLaughlin, K. A., Green, J. G., Russo, L. J., & Üstün, T. B. (2011). Development of lifetime comorbidity in the World Health Organization World Mental Health Surveys. *Archives of General Psychiatry*, *68*(1), 90–100.
doi:10.1001/archgenpsychiatry.2010.180
- King, K. M., Pedersen, S. L., Louie, K. T., Pelham, W. E., & Molina, B. S. G. (2017). Between- and within-person associations between negative life events and alcohol outcomes in

adolescents with ADHD. *Psychology of Addictive Behaviors*, 31(6), 699-711.

doi:10.1037/adb0000295

Klaufus, L., Verlinden, E., van der Wal, M., Cuijpers, P., Chinapaw, M., & Smit, F. (2022).

Adolescent anxiety and depression: burden of disease study in 53,894 secondary school pupils in the Netherlands. *BMC psychiatry*, 22(1), 1-12.

Klimstra, T. A., Crocetti, E., Hale, W., Fermani, A., & Meeus, J. (2011). Big Five personality

dimensions in Italian and Dutch adolescents: A cross-cultural comparison of mean-levels, sex differences, and associations with internalizing symptoms. *Journal of Research in Personality*, 45(3), 285–296. doi:10.1016/j.jrp.2011.03.002

Kopala-Sibley, D. C., Klein, D. N., Perlman, G., & Kotov, R. (2017). Self-criticism and

dependency in female adolescents: Prediction of first onsets and disentangling the relationships between personality, stressful life events, and internalizing psychopathology. *Journal of abnormal psychology*, 126(8), 1029.

doi:10.1037/abn0000297

Kotov, R., Gamez, W., Schmidt, F., & Watson, D. (2010). Linking “big” personality traits to

anxiety, depressive, and substance use disorders: a meta-analysis. *Psychological Bulletin*, 136(5), 768–821. doi:10.1037/a0020327

Kotov, R., Ruggero, C. J., Krueger, R. F., Watson, D., Yuan, Q., & Zimmerman, M. (2011).

New dimensions in the quantitative classification of mental illness. *Archives of General Psychiatry*, 68(10), 1003–1011. doi:10.1001/archgenpsychiatry.2011.107

Krackow, E., & Rudolph, K. D. (2008). Life stress and the accuracy of cognitive appraisals in

depressed youth. *Journal of Clinical Child & Adolescent Psychology*, 37(2), 376-385.

doi:10.1080/15374410801955797

- Kramer, M. D., Krueger, R. F., & Hicks, B. M. (2008). The role of internalizing and externalizing liability factors in accounting for gender differences in the prevalence of common psychopathological syndromes. *Psychological Medicine*, 38(1), 51-61. doi:10.1017/S0033291707001572
- Krueger, R. F. (1999). The Structure of Common Mental Disorders. *Archives of General Psychiatry*, 56(10), 921-926. doi:10.1001/archpsyc.56.10.921
- Krueger, R. F., Kotov, R., Watson, D., Forbes, M. K., Eaton, N. R., Ruggero, C. J., Simms, L. J., Widiger, T. A., Achenbach, T. M., Bach, B., Bagby, R. M., Bornovalova, M. A., Carpenter, W. T., Chmielewski, M., Cicero, D. C., Clark, L. A., Conway, C., DeClercq, B., DeYoung, C. G., ... Zimmermann, J. (2018). Progress in achieving quantitative classification of psychopathology. *World Psychiatry*, 17(3), 282–293. doi:10.1002/wps.20566
- Kushner, S. C. (2015). A review of the direct and interactive effects of life stressors and dispositional traits on youth psychopathology. *Child Psychiatry & Human Development*, 46(5), 810-819. doi:10.1007/s10578-014-0523-x
- Lachar, D., & Gruber, C. P. (1995). *Personality Inventory for Youth (PIY)*. Los Angeles, CA: WPS.
- Lachar, D., & Gruber, C. P. (2001). *Personality Inventory for Children – 2.ª Edición (PIC-2)*. Los Angeles, CA: WPS.
- Lachar, D., Wingenfeld, S. A., Kline, R. B., & Gruber, C. P. (2000). *Student Behavior Survey (SBS)*. Los Angeles, CA: WPS.
- Lahey, B. B., Rathouz, P. J., Van Hulle, C., Urbano, R. C., Krueger, R. F., Applegate, B., & Waldman, I. D. (2008). Testing structural models of DSM-IV symptoms of common

forms of child and adolescent psychopathology. *Journal of Abnormal Child Psychology*, 36(2), 187–206. doi:10.1007/s10802-007-9169-5

Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics*, 33, 159-174. doi:10.2307/2529310

Layard, R. (2012). *Mental health: The new frontier for the welfare state. CEP 21st Birthday Lecture Series*. London, UK.

Lewinsohn, P. M., Rohde, P., & Gau, J. M. (2003). Comparability of self-report checklist and interview data in the assessment of stressful life events in young adults. *Psychological Reports*, 93(2), 459-471. doi:10.2466/PRO.93.6.459-471

Low, N. C., Dugas, E., O'Loughlin, E., Rodriguez, D., Contreras, G., Chaiton, M., & O'Loughlin, J. (2012). Common stressful life events and difficulties are associated with mental health symptoms and substance use in young adolescents. *BMC Psychiatry*, 12(1), 1-10. doi:10.1186/1471-244X-12-116

Lüdtke, O., Roberts, B. W., Trautwein, U., & Nagy, G. (2011). A random walk down university avenue: life paths, life events, and personality trait change at the transition to university life. *Journal of personality and social psychology*, 101(3), 620. doi:10.1037/a0023743

Luhmann, M., Hofmann, W., Eid, M., & Lucas, R. E. (2012). Subjective well-being and adaptation to life events. *Journal of Personality and Social Psychology*, 102(3), 592-615. doi:10.1037/a0025948

Lynch, S. J., Sunderland, M., Newton, N. C., & Chapman, C. (2021). A systematic review of transdiagnostic risk and protective factors for general and specific psychopathology in young people. *Clinical psychology review, 87*, 102036.

doi:10.1016/j.cpr.2021.102036

Lyons, M. D., Huebner, E. S., Hills, K. J., y Van Horn, M. L. (2013). Mechanisms of change in adolescent life satisfaction: a longitudinal analysis. *Journal of School Psychology, 51*(5), 587–598.

doi:10.1016/j.jsp.2013.07.001

Luhmann, M., Hofmann, W., Eid, M., & Lucas, R. E. (2012). Subjective well-being and adaptation to life events: a meta-analysis. *Journal of Personality and Social Psychology, 102*(3), 592.

doi:10.1037/a0025948

Magnus, K., Diener, E., Fujita, F., & Pavot, W. (1993). Extraversion and neuroticism as predictors of objective life events: A longitudinal analysis. *Journal of Personality and Social Psychology, 60*(5), 175-215.

doi:10.1037//0022-3514.65.5.1046

Mandelli, L., Nearchou, F. A., Vaiopoulos, C., Stefanis, C. N., Vitoratou, S., Serretti, A., & Stefanis, N. C. (2015). Neuroticism, social network, stressful life events: association with mood disorders, depressive symptoms and suicidal ideation in a community sample of women. *Psychiatry Research, 226*(1), 38–44.

doi:10.1016/j.psychres.2014.11.001

March-Llanes, J., Marqués-Feixa, L., Mezquita, L., Fañanás, L., & Moya-Higueras, J. (2017). Stressful life events during adolescence and risk for externalizing and internalizing psychopathology: A meta-analysis. *European Child & Adolescent Psychiatry, 26*(12), 1409-1422.

doi:10.1007/s00787-017-0996-9

Mardomingo, M., & González Garrido, S. (1990). Escala de acontecimientos vitales para adolescentes. *Revista de Psiquiatria Infanto-Juvenil, 2*(2), 123-125.

- Markey, P. M., Markey, C. N., & Tinsley, B. J. (2004). Children's behavioral manifestations of the five-factor model of personality. *Personality and Social Psychology Bulletin*, 30(4), 423-432. doi:10.1177/0146167203261886
- Markey, P. M., Markey, C. N., Tinsley, B. J., & Ericksen, A. J. (2002). A preliminary validation of preadolescents' self-reports using the Five-Factor Model of Personality. *Journal of research in Personality*, 36(2), 173-181. doi:10.1006/jrpe.2001.2341
- Martin, L. R., Friedman, H. S., & Schwartz, J. E. (2007). Personality and mortality risk across the life span: the importance of conscientiousness as a biopsychosocial attribute. *Health Psychology*, 26(4), 428-436. doi:10.1037/0278-6133.26.4.428
- Maughan, B., Rowe, R., Messer, J., Goodman, R., & Meltzer, H. (2004). Conduct disorder and oppositional defiant disorder in a national sample: developmental epidemiology. *Journal of child psychology and psychiatry*, 45(3), 609-621. doi:10.1111/j.1469-7610.2004.00250.x
- McAdams, T. A., Gregory, A. M., & Eley, T. C. (2013). Genes of experience: Explaining the heritability of putative environmental variables through their association with behavioural and emotional traits. *Behavior genetics*, 43(4), 314-328. doi:10.1007/s10519-013-95910
- McCullough, G., Huebner, E. S., & Laughlin, J. E. (2000). Life events, self-concept, and adolescents' positive subjective well-being. *Psychology in the Schools*, 37(3), 281-290. doi:10.1002/(SICI)1520-6807(200005)37:3<281::AID-PITS8>3.0.CO;2-2
- McCrae, R. R., & Costa, P. T. (1995). Trait explanations in personality psychology. *European Journal of Personality*, 9(4), 231-252. doi:10.1002/per.2410090402

- McCrae, R. R., & Costa, P. T. (2004). A contemplated revision of the NEO Five-Factor Inventory. *Personality and individual differences, 36*(3), 587-596.
doi:10.1016/S0191-8869(03)00118-1
- McCrae, R. R., & Costa, P. T. (2008). Empirical and theoretical status of the five-factor model of personality traits. In G. J. Boyle, G. Matthews, & D. H. Saklofske (Eds.), *The SAGE handbook of personality theory and assessment, Vol. 1. Personality theories and models* (pp. 273–294). Sage Publications, Inc.
- McCrae, R. R., & Costa, P. T. (2010). *NEO Inventories for the NEO Personality Inventory–3 (NEO–PI–3), NEO Five-Factor Inventory–3 (NEO–FFI–3), NEO Personality Inventory–Revised (NEO-PI-R): Professional manual*. Lutz, FL: Psychological Assessment Resources.
- McCrae, R. R., Costa, P. T., Terracciano, A., Parker, W. D., Mills, C. J., De Fruyt, F., & Mervielde, I. (2002). Personality trait development from age 12 to age 18: Longitudinal, cross-sectional and cross-cultural analyses. *Journal of personality and social psychology, 83*(6), 1456. doi:10.1037/0022-3514.83.6.1456
- McCrae, R. R., Martin, T. A., & Costa, P. T. (2005). Age trends and age norms for the NEO Personality Inventory-3 in adolescents and adults. *Assessment, 12*(4), 363-373.
doi:10.1177/1073191105279724
- McCrae, R. R., & Sutin, A. R. (2007). New frontiers for the five-factor model: A preview of the literature. *Social and Personality Psychology Compass, 1*(1), 423-440.
doi:10.1111/j.1751-9004.2007.00021.x

- McCrae, R. R., Zonderman, A. B., Costa Jr, P. T., Bond, M. H., & Paunonen, S. V. (1996). Evaluating replicability of factors in the Revised NEO Personality Inventory: Confirmatory factor analysis versus Procrustes rotation. *Journal of personality and social psychology*, *70*(3), 552. doi:10.1037/0022-3514.70.3.552
- McGue, M., & Bouchard, T. (1991). On genes, environment, and experience. *Brain and Behavioral Sciences*, *14*(3), 400-411. doi:10.1037/0033-2909.126.1.78
- McHugh, M. L. (2012). Interrater reliability: The kappa statistic. *Biochemia Medica*, *22*(3), 276-282.
- Mcknight, C. G., Huebner, E. S., & Suldo, S. (2002). Relationships among stressful life events, temperament, problem behavior, and global life satisfaction in adolescents. *Psychology in the Schools*, *39*(6), 677-687. doi:10.1002/pits.10062
- McLeod, B. D., Weisz, J. R., & Wood, J. J. (2007). Examining the association between parenting and childhood depression: A meta-analysis. *Clinical psychology review*, *27*(8), 986-1003. doi:10.1016/j.cpr.2007.03.001
- McMaster, L., Connolly, J., Pepler, D., & Craig, W. (2002). Peer to peer sexual harassment in early adolescence: A developmental perspective. *Development and Psychopathology*, *14*(1), 91-105. doi:10.1017/S0954579402001050
- Melkevik, O., Nilsen, W., Evensen, M., Reneflot, A., & Mykletun, A. (2016). Internalizing disorders as risk factors for early school leaving: A systematic review. *Adolescent Research Review*, *1*(13), 245-255. doi:10.1007/s40894-016-0024-1
- Merikangas, K. R., Calkins, M. E., Burstein, M., He, J. P., Chiavacci, R., Lateef, T., ... & Gur, R. E. (2015). Comorbidity of physical and mental disorders in the neurodevelopmental

genomics cohort study. *Pediatrics*, 135(4), e927-e938. doi:10.1542/peds.2014-1444

Merikangas, K., Jian-ping, H., Burstein, M., Swanson, S., Avenevoli, S., Lihong, C., Benjet, C., Georgiades, K., & Swendsen, J. (2011). Lifetime prevalence of mental disorders in U.S. adolescents: Results from the National Comorbidity Study–Adolescent Supplement (NCS-A). *Journal of the American Academy Children Adolescent Psychiatry*, 49(10), 980-989. doi:10.1016/j.jaac.2010.05.017

Merikangas, K. R., Nakamura, E. F., & Kessler, R. C. (2009). Epidemiology of mental disorders in children and adolescents. *Dialogues in clinical neuroscience*, 11, 7-20. doi:10.31887/DCNS.2009.11.1/krmerikangas

Mervielde, I., & De Fruyt, F. (2000). The Big Five personality factors as a model for the structure of children's peer nominations. *European Journal of Personality*, 14(2), 91–106. doi:10.1002/(SICI)1099-0984(200003/04)14:2<91::AID-PER356>3.0.CO;2-Z

Metts, A., Yarrington, J., Enders, C., Hammen, C., Mineka, S., Zinbarg, R., & Craske, M. G. (2021). Reciprocal effects of neuroticism and life stress in adolescence. *Journal of affective disorders*, 281, 247-255. doi:10.1016/j.jad.2020.12.016

Mezquita, L., Camacho, L., Ibáñez, M. I., Villa, H., Moya, J., & Ortet, G. (2015). Five-factor model and alcohol outcomes: Mediating and moderating role of alcohol expectancies. *Personality and Individual Differences*, 74, 29-34. doi:10.1016/j.paid.2014.10.002

Middeldorp, C. M., Cath, D. C., Beem, A. L., Willemsen, G., & Boomsma, D. I. (2008). Life events, anxious depression and personality: a prospective and genetic

study. *Psychological medicine*, 38(11), 1557-1565.

doi:10.1017/S0033291708002985

Miller, G. E., Chen, E., & Zhou, E. S. (2007). If it goes up, must it come down? Chronic stress and the hypothalamic-pituitary-adrenocortical axis in humans. *Psychological Bulletin*, 133(1), 25-45. doi:10.1037/0033-2909.133.1.25

Mineka, S., Williams, A. L., Wolitzky-Taylor, K., Vrshek-Schallhorn, S., Craske, M. G., Hammen, C., & Zinbarg, R. E. (2020). Five-year prospective neuroticism–stress effects on major depressive episodes: Primarily additive effects of the general neuroticism factor and stress. *Journal of Abnormal Psychology*, 129(6), 646.

doi:10.1037/abn0000530

Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., Harrington, H., Houts, R., Poulton, R., Roberts, B. W., Ross, S., Sears, M., Thomson, W. M., & Caspi, A. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *Proceedings of the national Academy of Sciences*, 108(7), 2693-2698.

doi:10.1073/pnas.1010076108

Moitra, M., Santomauro, D., Collins, P. Y., Vos, T., Whiteford, H., Saxena, S., & Ferrari, A. J. (2022). The global gap in treatment coverage for major depressive disorder in 84 countries from 2000–2019: A systematic review and Bayesian meta-regression analysis. *PLoS medicine*, 19(2), e1003901. doi:10.1371/journal.pmed.1003901

Monroe, S. M. (2008). Modern approaches to conceptualizing and measuring human life stress. *Annual Review of Clinical Psychology*, 4, 33-52.

doi:10.1146/annurev.clinpsy.4.022007.141207

Monroe, S. M., & Reid, M. W. (2008). Gene-environment interactions in depression research. *Psychological Science*, 19(10), 947-957. doi:10.1111/j.1467-9280.2008.02181.x

- Monroe, S. M., & Simons, A. D. (1991). Diathesis-stress theories in the context of life stress research: implications for the depressive disorders. *Psychological bulletin*, *110*(3), 406. doi:10.1037/0033-2909.110.3.406
- Morrison, C. L., Rhee, S. H., Smolker, H. R., Corley, R. P., Hewitt, J. K., & Friedman, N. P. (2021). Genetic and environmental influences on stressful life events and their associations with executive functions in young adulthood: A longitudinal twin analysis. *Behavior genetics*, *51*(1), 30-44. doi:10.1007/s10519-020-10017-9
- Motrico, E., Moreno-Küstner, B., De Dios Luna, J., Torres-González, F., King, M., Nazareth, I., Montón-Franco, C., Gómez-Barragán, M. J., Sánchez-Celoja, M., Díaz-Barreiros, M. A., Vicens, C., Moreno-Peral, P., & Bellón, J. Á. (2013). Psychometric properties of the List of Threatening Experiences—LTE and its association with psychosocial factors and mental disorders according to different scoring methods. *Journal of Affective Disorders*, *150*(3), 931-940. doi:10.1016/j.jad.2013.05.017
- Moya-Higueras, J., Cuevas, A., Marques-Feixa, L., Mezquita, L., Mayoral, M., Fañanás, L., Ortet, G., & Ibáñez, M. I. (2018). Recent Stressful Life Events (SLE) and Adolescent Mental Health: Initial Validation of the LEIA, a New Checklist for SLE Assessment According to Their Severity, Interpersonal, and Dependent Nature. *Assessment*, *27*(8), 1777-1795. doi:10.1177/1073191118817648
- Moya-Higueras, J., Gallego, S., Viruela, A. M., Mezquita, L., Villa, H., Ibáñez, M. I., & Ortet, G. Predicción de la sintomatología interiorizada y exteriorizada a través de la personalidad y los eventos vitales negativos en adolescentes. *En Proceedings of 7th International and 12th National Congress of Clinical Psychology* (14-16 November, 2014. Sevilla-Spain) (p. 60).

- Murray, L. E., & O'Neill, L. (2019). Neuroticism and extraversion mediate the relationship between having a sibling with developmental disabilities and anxiety and depression symptoms. *Journal of affective disorders, 243*, 232-240.
doi:10.1016/j.jad.2018.09.042
- Navarro, I., & García-Villamizar, D. A. (2014). Impacto de la sintomatología interiorizada y de las funciones ejecutivas en el rendimiento académico en educación primaria. *Journal of Psychopathology and Clinical Psychology, 19*(2), 117-127.
doi:10.5944/rppc.vol.19.num.2.2014.13062
- Newcomb, M., Huba, G., & Bentler, P. (1981). A multidimensional assessment of stressful life events among adolescents: Derivation and correlates. *Journal of Health and Social Behavior, 22*(4), 400-415. doi:10.2307/2136681
- Nock, M. K., Kazdin, A. E., Hiripi, E. V. A., & Kessler, R. C. (2006). Prevalence, subtypes, and correlates of DSM-IV conduct disorder in the National Comorbidity Survey Replication. *Psychological medicine, 36*(5), 699-710.
doi:10.1017/S0033291706007082
- Norman, R. E., Byambaa, M., De, R., Butchart, A., Scott, J., & Vos, T. (2012). The long-term health consequences of child physical abuse, emotional abuse, and neglect: A systematic review and meta-analysis. *PLoS Medicine, 9*(11), 349.
doi:10.1371/journal.pmed.1001349
- Olino, T. M., Klein, D. N., & Seeley, J. R. (2020). Profiles of psychosocial and clinical functioning in adolescence and risk for later depression and other outcomes. *Psychological Medicine, 50*(12), 2066-2074.
doi:10.1017/S0033291719002186.

Oliva, A., Jiménez, J. M., Parra, Á., & Sánchez-Queija, I. (2008). Acontecimientos vitales estresantes, resiliencia y ajuste adolescente. *Revista de Psicopatología y Psicología Clínica*, 13(1), 53-62. doi:10.5944/rppc.vol.13.num.1.2008.4050

O'Neil, K. A., Podell, J. L., Benjamin, C. L., & Kendall, P. C. (2010). Comorbid depressive disorders in anxiety-disordered youth: Demographic, clinical, and family characteristics. *Child Psychiatry & Human Development*, 41(3), 330-341. doi:10.1007/s10578-009-0170-9

Ormel, J., Raven, D., van Oort, F., Hartman, C. A., Reijneveld, S. A., Veenstra, R., Volleberg, V. A. M., Buitelaar, J., Verhulst, F. C., & Oldehinkel, A. J. (2015). Mental Health in Dutch adolescents: A TRAILS report on prevalence, severity, age of onset, continuity and co-morbidity of DSM disorders. *Psychological Medicine*, 45(2), 345-360. doi:10.1017/S0033291714001469

Ortet, G., Escrivá, P., Ibáñez, M. I., Moya, J., Villa, H., Mezquita, L., & Ruipérez, M. A. (2010). Versión corta de la adaptación española para adolescentes del NEO-PI-R (JS NEO-S). *International Journal of Clinical and Health Psychology*, 10(2), 327-344.

Ortet, G., Ibáñez, M. I., Moya, J., Villa, H., Viruela, A., & Mezquita, L. (2012). Assessing the five factors of personality in adolescents: The junior version of the Spanish NEO-PI-R. *Assessment*, 19(1), 114-130. doi:10.1177/1073191111410166

Ortet-Walker, J., Mezquita, L., Vidal-Arenas, V., Ortet, G., & Ibáñez, M. I. (2020). Validation of an abridged, 60-item form, of the Junior Spanish NEO inventory (JS NEO-A60). *Current Psychology*, 1-11. doi:10.1007/s12144-020-01135-y

- Ortuño-Sierra, J., Aritio-Solana, R., Chocarro de Luis, E., Nalda, F. N., & Fonseca-Pedrero, E. (2017). Subjective well-being in adolescence: New psychometric evidences on the satisfaction with life scale. *European Journal of Developmental Psychology, 16*(2), 1-9. doi:10.1080/17405629.2017.1360179
- Palma-Gudiel, H., Córdova-Palomera, A., Leza, J. C., & Fañanás, L. (2015). Glucocorticoid receptor gene (NR3C1) methylation processes as mediators of early adversity in stress-related disorders causality: A critical review. *Neuroscience and Biobehavioral Reviews, 55*, 520-535. doi:10.1016/j.neubiorev.2015.05.016
- Parker, W. D., & Stumpf, H. (1998). A validation of the five-factor model of personality in academically talented youth across observers and instruments. *Personality and Individual Differences, 25*(6), 1005-1025. doi:10.1016/S0191-8869(98)00016-6
- Patton, G. C., Coffey, C., Posterino, M., Carlin, J. B., & Bowes, G. (2003). Life events and early onset depression: cause or consequence? *Psychological medicine, 33*(7), 1203-1210. doi:10.1017/S0033291703008626
- Patton, G. C., Coffey, C., Romaniuk, H., Mackinnon, A., Carlin, J. B., Degenhardt, L., Olsson, C.A., & Moran, P. (2014). The prognosis of common mental disorders in adolescents: A 14-year prospective cohort study. *Lancet, 383*(9926), 1404-1411. doi:10.1016/S0140-6736(13)62116-9
- Paykel, E. S. (2003). Life events and affective disorders. *Acta Psychiatrica Scandinavica, 108*, 61-66. doi:10.1034/j.1600-0447.108.s418.13.x
- Plomin, R., DeFries, J. C., & Loehlin, J. C. (1977). Genotype-environment interaction and correlation in the analysis of human behavior. *Psychological Bulletin, 84*(2), 309-322. doi:10.1037/0033-2909.84.2.309

- Plomin, R., & Lichtenstein, P. (1990). Genetic influence on life events during the last half of the life span. *Psychology and Aging, 5*(1), 25-30. doi:10.1037/0882-7974.5.1.25
- Polanczyk, G. V., Salum, G. A., Sugaya, L. S., Caye, A., & Rohde, L. A. (2015). Annual research review: A meta-analysis of the worldwide prevalence of mental disorders in children and adolescents. *Journal of child psychology and psychiatry, 56*(3), 345-365. doi:10.1111/jcpp.12381
- Rabkin, J., & Struening, E. (1976). Life events, stress, and illness. *Science, 194*(4269), 1013-1020. doi:10.1126/science.790570
- Rakhshani, A., & Furr, R. M. (2021). The reciprocal impacts of adversity and personality traits: A prospective longitudinal study of growth, change, and the power of personality. *Journal of personality, 89*(1), 50-67. doi:10.1111/jopy.12541
- Ranøyen, I., Lydersen, S., Larose, T. L., Weidle, B., Skokauskas, N., Thomsen, P. H., & Indredavik, M. S. (2018). Developmental course of anxiety and depression from adolescence to young adulthood in a prospective Norwegian clinical cohort. *European child & adolescent psychiatry, 27*(11), 1413-1423. doi:10.1007/s00787-018-1139-7
- Reijntjes, A., Kamphuis, J. H., Prinzie, P., & Telch, M. J. (2010). Peer victimization and internalizing problems in children: A meta-analysis of longitudinal studies. *Child Abuse & Neglect, 34*(4), 244-252. doi:10.1016/j.chiabu.2009.07.009
- Reynolds, C. R., & Kamphaus, R. W. (2004). *BASC-2. Behavior Assessment System for Children – 2.ª Edición*. Bloomington, MN: Pearson.

- Repetti, R. L., Taylor, S. E., & Seeman, T. E. (2002). Risky families: Family social environments and the mental and physical health of offspring. *Psychological Bulletin*, 128(2), 330-366. doi:10.1037//0033-2909.128.2.330
- Rigby, K. (2003). Consequences of bullying in schools. *Canadian Journal Psychiatry*, 48(9), 583-590. doi:10.1177/ 070674370304800904
- Risch, N., Herrell, R., Lehner, T., Liang, K.-Y., Eaves, L., Hoh, J., Griem, A., Kovacs, M., Ott, J., & Merikangas, K. R. (2009). Interaction between the serotonin transporter gene (5-HTTLPR), stressful life events, and risk of depression: A meta-analysis. *JAMA*, 301(23), 2462-2471. doi:10.1001/jama.2009.878
- Roberts, B. W., & DelVecchio, W. F. (2000). The rank-order consistency of personality traits from childhood to old age: a quantitative review of longitudinal studies. *Psychological bulletin*, 126(1), 3-15. doi:10.1037/0033-2909.126.1.3
- Romero, E., Ángeles Luengo, M., Gómez-Fraguela, J. A., & Sobral, J. (2002). La estructura de los rasgos de personalidad en adolescentes: El Modelo de Cinco Factores y los Cinco Alternativos. *Psicothema*, 14(1) 134-143.
- Rowe, R., Costello, E. J., Angold, A., Copeland, W. E., & Maughan, B. (2010). Developmental pathways in oppositional defiant disorder and conduct disorder. *Journal of abnormal psychology*, 119(4), 726. doi:10.1037/a0020798
- Rudolph, K. D., Hammen, C., Burge, D., Lindberg, N., Herzberg, D., & Daley, S. E. (2000). Toward an interpersonal lifestress model of depression: The developmental context of stress generation. *Development and Psychopathology*, 12(2), 215-234. doi:10.1017/S0954579400002066

- Ruiz, M. A., Pardo, A., & San Martín, R. (2008). Modelos de ecuaciones estructurales. *Papeles Del Psicólogo*, 31(1), 34-45.
- Ruiz-Rodríguez, P., Cano-Vindel, A., Navarro, R. M., Medrano, L., Moriana, J. A., Aguado, C. B., Jiménez, G., & González, C. (2017). Impacto económico y carga de los trastornos mentales comunes en España: una revisión sistemática y crítica. *Ansiedad y Estrés*, 23(2-3), 118-123. doi:10.1016/j.anyes.2017.10.003
- Salomon, J. A., Haagsma, J. A., Davis, A., de Noordhout, C. M., Polinder, S., Havelaar, A. H., Cassini, A., Devleeschauwer, B., Kretzschman, H., Speybreck, N., Murray, C., & Vos, T. (2015). Disability weights for the Global Burden of Disease 2013 study. *The Lancet Global Health*, 3(11), e712-e723. doi:10.1016/S2214-109X(15)00069-8
- Sánchez-Sánchez, F., Fernández-Pinto, I., Santamaría, P., Carrasco, M. A., & Barrio, V. (2016). SENA, Sistema de Evaluación de Niños y Adolescentes: Proceso de desarrollo y evidencias de fiabilidad y validez. *Revista de Psicología Clínica Con Niños y Adolescentes*, 3(2), 23-34.
- Sandín, B., & Chorot, P. (2017). Cuestionario de Sucesos Vitales (CSV): Estructura factorial, propiedades psicométricas y datos normativos. *Revista de Psicopatología y Psicología Clínica*, 22(2), 95-115. doi:10.5944/rppc.vol.22.num.2.2017.19729
- Sarason, I., Johnson, J., & Siegel, J. (1978). Assessing the impact of life changes: Development of the life experiences survey. *Journal of Consulting and Clinical Psychology*, 46(5), 932-946. doi:10.1037//0022-006x.46.5.932
- Saudino, K. J., Pedersen, N. L., Lichtenstein, P., McClearn, G. E., & Plomin, R. (1997). Can personality explain genetic influences on life events? *Journal of Personality and Social Psychology*, 72(1), 196–206. doi:10.1037/0022-3514.72.1.196

- Schriber, R. A., & Guyer, A. E. (2016). Adolescent neurobiological susceptibility to social context. *Developmental cognitive neuroscience, 19*, 1-18.
doi:10.1016/j.dcn.2015.12.009
- Seiffge-Krenke, I. (2017). Does adolescents' psychopathology change in times of change? *Journal of Adolescence, 61*, 107–112. doi:10.1016/j.adolescence.2017.09.010
- Serafini, G., Muzio, C., Piccinini, G., Flouri, E., Ferrigno, G., Pompili, M., ... & Amore, M. (2015). Life adversities and suicidal behavior in young individuals: a systematic review. *European child & adolescent psychiatry, 24*(12), 1423-1446.
doi:10.1007/s00787-015-0760-y
- Shapero, B. G., Hamilton, J. L., Liu, R. T., Abramson, L. Y., & Alloy, L. B. (2013). Internalizing symptoms and rumination: The prospective prediction of familial and peer emotional victimization experiences during adolescence. *Journal of Adolescence, 36*(6), 1067-1076. doi:10.1016/j.adolescence.2013.08.011
- Shapero, B., Hankin, B. L., & Barrocas, A. L. (2013). Stress generation and exposure in a multi-wave study of adolescents: Transactional processes and sex differences. *Journal of Social and Clinical Psychology, 32*(9), 989-1012.
doi:10.1521/jscp.2013.32.9.989
- Shields, G. S., & Slavich, G. M. (2017). Lifetime stress exposure and health: A review of contemporary assessment methods and biological mechanisms. *Social & Personality Psychology Compass, 11*(8), e12335. doi:10.1111/spc3.12335
- Shiner, R. L. (2009). The development of personality disorders: Perspectives from normal personality development in childhood and adolescence. *Development and psychopathology, 21*(3), 715-734. doi:10.1017/S0954579409000406

- Shiner, R. L., Allen, T. A., & Masten, A. S. (2017). Adversity in adolescence predicts personality trait change from childhood to adulthood. *Journal of Research in Personality, 67*, 171-182. doi:10.1016/j.jrp.2016.10.002
- Silva, S. A., Silva, S. U., Ronca, D. B., Gonçalves, V. S. S., Dutra, E. S., & Carvalho, K. M. B. (2020). Common mental disorders prevalence in adolescents: A systematic review and meta-analyses. *PloS one, 15*(4), e0232007. doi:10.1371/journal.pone.0232007
- Solmi, M., Radua, J., Olivola, M., Croce, E., Soardo, L., Salazar de Pablo, G., Kirkbride, J. B., Jones, P., Kim, J. H., Carvalho, A.F., Seeman, M. V., Correll, C. V., & Fusar-Poli, P. (2022). Age at onset of mental disorders worldwide: large-scale meta-analysis of 192 epidemiological studies. *Molecular psychiatry, 27*(1), 281-295. doi:10.1038/s41380-021-01161-7.
- South, S. C., Eaton, N. R., & Krueger, R. F. (2010). The connections between personality and psychopathology. In T. Millon, R. F. Krueger, & E. Simonsen (Eds.), *Contemporary directions in psychopathology: Scientific foundations of the DSM-V and ICD-11*, 242-262. New York, NY, US: The Guilford Press.
- Stange, J. P., Hamilton, J. L., Abramson, L. Y., & Alloy, L. B. (2014). A vulnerability-stress examination of response styles theory in adolescence: Stressors, sex differences, and symptom specificity. *Journal of Clinical Child & Adolescent Psychology, 43*(5), 813-827. doi:10.1080/15374416.2013.812037
- Steel, Z., Marnane, C., Iranpour, C., Chey, T., Jackson, J. W., Patel, V., & Silove, D. (2014). The global prevalence of common mental disorders: a systematic review and meta-analysis 1980–2013. *International journal of epidemiology, 43*(2), 476-493. doi:10.1093/ije/dyu038

Stikkelbroek, Y., Bodden, D. H. M., Reitz, E., Vollebergh, W. A. M., & van Baar, A. L. (2016). Mental health of adolescents before and after the death of a parent or sibling. *European Child & Adolescent Psychiatry, 25*(1), 49-59. doi:10.1007/s00787-015-0695-3

Suldo, S. M., & Huebner, E. S. (2004). Does life satisfaction moderate the effects of stressful life events on psychopathological behavior during adolescence? *School Psychology Quarterly, 19*(2), 93-105. doi:10.1521/scpq.19.2.93.33313

Sunderland, M., Forbes, M. K., Mewton, L., Baillie, A., Carragher, N., Lynch, S. J., Batterham, T., Calear, A. L., Chapman, C., Newton, N. C., Teesson, M., & Slade, T. (2021). The structure of psychopathology and association with poor sleep, self-harm, suicidality, risky sexual behavior, and low self-esteem in a population sample of adolescents. *Development and psychopathology, 33*(4), 1208-1219. doi:10.1017/S0954579420000437

Swartz, J. R., Williamson, D. E., & Hariri, A. R. (2015). Developmental change in amygdala reactivity during adolescence: Effects of family history of depression and stressful life events. *American Journal of Psychiatry, 172*(3), 276-283. doi:10.1176/appi.ajp.2014.14020195

Tackett, J. L., Krueger, R. F., Iacono, W. G., & McGue, M. (2008). Personality in middle childhood: A hierarchical structure and longitudinal connections with personality in late adolescence. *Journal of Research in Personality, 42*(6), 1456–1462. doi:10.1016/j.jrp.2008.06.005

Tackett, J. L., Slobodskaya, H. R., Mar, R. A., Deal, J., Halverson, C. F., Jr., Baker, S. R., Pavlopoulos, V., & Besevegis, E. (2012). The hierarchical structure of childhood

personality in five countries: Continuity from early childhood to early adolescence. *Journal of Personality*, 80(4), 847–879. doi:10.1111/j.1467-6494.2011.00748.x

Timoney, L. R., Walsh, Z., Shea, M. T., Yen, S., Ansell, E. B., Grilo, C. M., ... & Sanislow, C. A. (2017). Personality and life events in a personality disorder sample. *Personality Disorders: Theory, Research, and Treatment*, 8(4), 376- 382. doi:10.1037/per0000214

Todkar, A., Nilsson, K. W., Orelund, L., Hodgins, S., & Comasco, E. (2013). Serotonin transporter genotype by environment: Studies on alcohol use and misuse in non-human and human primates. *Translational Neuroscience*, 4(2), 241-250. doi:10.2478/s13380-013-0121-6

Tolan, P., Gorman-Smith, D., & Henry, D. (2006). Family violence. *Annual Review of Psychology*, 57, 557-583. doi:10.1146/annurev.psych.57.102904.190110

Trautmann, S., Rehm, J., & Wittchen, H. U. (2016). The economic costs of mental disorders: Do our societies react appropriately to the burden of mental disorders?. *EMBO reports*, 17(9), 1245-1249. doi:10.15252/embr.201642951

Trianes, M. V., Blanca, M. J., Fernández, F. J., Escobar, M., Maldonado, E. F., & Muñoz, A. M. (2009). Assessment of stress in childhood: Children's Daily Stress Inventory, IIEC. *Psicothema*, 21, 598-603.

Turner, R., & Wheaton, B. (1997). Checklist measurement of stressful life events. In S. Cohen, R. Kessler & L. Underwood (Eds.), *Measuring stress: A guide for health and social scientists* (pp. 29-51). New York, NY: Oxford University Press.

- Tyrer, P., & Yang, M. (2015). The clinical implications of personality-generated mental illness. *Personality and Mental Health, 9*(1), 17-20. doi:10.1002/pmh.1286
- Unitat d'Epidemiologia i de Diagnòstic en Psicopatologia del Desenvolupament (2013). *Baremos para CBCL 6-182001. Población española*. Barcelona: Universidad Autónoma de Barcelona.
- United Nations Office on Drugs and Crime Research (2020). *World Drug Report 2020*.
<https://www.unodc.org/unodc/en/data-and-analysis/world-drug-report-2022.html>
- van der Knaap, N. J. F., El Marroun, H., Klumpers, F., Mous, S. E., Jaddoe, V. W. V., Hofman, A., Homberg, J., White, T., Tiemeier, H., & Fernandez, G. (2014). Beyond classical inheritance: The influence of maternal genotype upon child's brain morphology and behavior. *Journal of Neuroscience, 34*(29), 9516-9521.
doi:10.1523/JNEUROSCI.0505-14.2014
- Van Der Kolk, B. A., Roth, S., Pelcovitz, D., Sunday, S., & Spinazzola, J. (2005). Disorders of extreme stress: The empirical foundation of a complex adaptation to trauma. *Journal of Traumatic Stress, 18*(5), 389-399. doi:10.1002/jts.20047
- Veenstra, M. Y., Lemmens, P. H. H. M., Friesema, I. H. M., Garretsen, H. F. L., Knottnerus, J. A., & Zwietering, P. J. (2006). A literature overview of the relationship between life-events and alcohol use in the general population. *Alcohol and Alcoholism, 41*(4), 455-463. doi:10.1093/alcalc/agl023
- Verardi, S., Nicastro, R., McQuillan, A., Keizer, I., & Rossier, J. (2008). The personality profile of borderline personality disordered patients using the five-factor model of personality. *International Journal of Clinical and Health Psychology, 8*(2), 451-464.

- Verona, E., Javdani, S., & Sprague, J. (2011). Comparing Factor Structures of Adolescent Psychopathology. *Psychological Assessment, 23*(2), 545–551.
doi:10.1037/a0022055
- Vigo, D., Thornicroft, G., & Atun, R. (2016). Estimating the true global burden of mental illness. *The Lancet Psychiatry, 3*(2), 171-178. doi:10.1016/S2215-0366(15)00505-2
- Vinkers, C. H., Joëls, M., Milaneschi, Y., Kahn, R. S., Penninx, B. W., & Boks, M. P. (2014). Stress exposure across the life span cumulatively increases depression risk and is moderated by neuroticism. *Depression and anxiety, 31*(9), 737-745.
doi:10.1002/da.22262
- Viruela, A., Camacho Guerrero, L., Mezquita, L., & Moya, J. (2009). Personalidad y sucesos vitales negativos en la adolescencia. *Forum de recerca 15*, 261-272.
- Vittengl, J. R. (2017). Who pays the price for high neuroticism? Moderators of longitudinal risks for depression and anxiety. *Psychological Medicine, 47*(10), 1794-1805.
doi:10.1017/S0033291717000253
- Voltas, N., Aparicio, E., Arija, V., & Canals, J. (2015). Association study of monoamine oxidase: A gene promoter polymorphism (MAOA-uVNTR) with self-reported anxiety and other psychopathological symptoms in a community sample of early adolescents. *Journal of Anxiety Disorders, 31*, 65-72. doi:10.1016/j.janxdis.2015.02.004
- Vos, T., Lim, S. S., Abbafati, C., Abbas, K. M., Abbasi, M., Abbasifard, M., Abbasi-Kangevari, M., Abbastabar, H., Abd-Allah, F., Abdelalim, A., Abdollahi, M., Abdollahpour, I., Abolhassani, H., Aboyans, V., Abrams, E. M., Guimarães, L., Abrigo, M., ...& Bhutta, Z. A. (2020). Global burden of 369 diseases and injuries in

204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*, 396(10258), 1204-1222.
doi:10.1016/S0140-6736(20)30925-9

Vrshek-Schallhorn, S., Stroud, C. B., Mineka, S., Hammen, C., Zinbarg, R. E., Wolitzky-Taylor, K., & Craske, M. G. (2015). Chronic and episodic interpersonal stress as statistically unique predictors of depression in two samples of emergent adults. *Journal of Abnormal Psychology*, 124(4), 918-932. doi:10.1037/abn0000088

Vukasović, T., & Bratko, D. (2015). Heritability of personality: a meta-analysis of behavior genetic studies. *Psychological bulletin*, 141(4), 769- 785. doi:10.1037/bul0000017

Wagner, C., Abela, J. R. Z., & Brozina, K. (2006). A comparison of stress measures in children and adolescents: A self-report checklist versus an objectively rated interview. *Journal of Psychopathology and Behavioral Assessment*, 28(4), 251-261.
doi:10.1007/s10862-005-9010-9

Watkins, M. W. (2006). Determining parallel analysis criteria. *Journal of Modern Applied Statistical Methods*, 5(2), 344–346. doi:10.22237/jmasm/1162354020

Watts, A. L., Poore, H. E., Lilienfeld, S. O., & Waldman, I. D. (2019). Clarifying the associations between Big Five personality domains and higher-order psychopathology dimensions in youth. *Journal of Research in Personality*, 82, 103844.
doi:10.1016/j.jrp.2019.07.002

- Wethington, E., Brown, G., & Kessler, R. (1997). Interview measurement of stressful life events. In S. Cohen, R. Kessler & L. Underwood (Eds.), *Measuring stress: A guide for health and social scientists* (pp. 59-79). New York, NY: Oxford University Press.
- Whisman, M. A. (2007). Marital distress and DSM-IV psychiatric disorders in a population-based national survey. *Journal of abnormal psychology, 116*(3), 638-377.
doi:10.1037/0893-3200.20.3.369
- Whiteford, H.A., Degenhardt, L., & Rehm, J. (2013). Global burden of disease attributable to mental and substance use disorders: findings from the Global Burden of Disease Study 2010. *Lancet, 382*(9904), 1575-86. doi:10.1016/S0140-6736(13)61611-6
- Wichers, M., Maes, H.H., Jacobs, N., Derom, C., Thiery, E. Kendler, K.S (2012). Disentangling the causal inter-relationship between negative life events and depressive symptoms in women: a longitudinal twin study. *Psychological Medicine, 42*(9), 1801–1814.
doi:10.1017/S003329171100300X
- Wichstrøm, L. (1999). The emergence of gender difference in depressed mood during adolescence: The role of intensified gender socialization. *Developmental Psychology, 35*(1), 232–245. doi:10.1037/0012-1649.35.1.232
- Widiger, T. A. & Smith, G. T. (2008). Personality and psychopathology. En O. John, R. W. Robins y L. Pervin (Eds.), *Handbook of Personality: Theory and Research* (pp. 743-769). NY: Guilford.
- Williams, E. J. (1959). The comparison of regression variables. *Journal of the Royal Statistical Society: Series B, 21*(2), 396-399. doi:10.1111/j.2517-6161.1959.tb00346.x
- Wittchen, H. U., Jacobi, F., Rehm, J., Gustavsson, A., Svensson, M., Jönsson, B., Olese, J., Allgunlander, C., Alonso, J., Faravelli, C., Fratiglioni, L., Jennum, P., Lieb, K.,

Maercker, A., van Os, J., Preising, M., Salvador-Carulla, L., Simon, R., & Steinhausen, H. C. (2011). The size and burden of mental disorders and other disorders of the brain in Europe 2010. *European Neuropsychopharmacology*, 21(9), 655- 679.
doi:10.1016/j.euroneuro.2011.07.018

World Health Organization (2012). *Adolescent health epidemiology*.

https://www.who.int/maternal_child_adolescent/epidemiology/adolescence/en/

World Health Organization (2019). Extracts from document EB144/2019/REC/1 for consideration by the Seventy-second World Health Assembly.

<https://apps.who.int/gb/>

World Health Organization (2020). *Global Health Estimates 2000-2019*.

<https://www.who.int/data/global-health-estimates>

World Health Organization (2022). *World Health Statistics 2022*.

<https://apps.who.int/iris/bitstream/handle/10665/356584/9789240051140-eng.pdf>

Young, S. E., Friedman, N. P., Miyake, A., Willcutt, E. G., Corley, R. P., Haberstick, B. C., & Hewitt, J. K. (2009). Behavioral disinhibition: Liability for externalizing spectrum disorders and its genetic and environmental relation to response inhibition across adolescence. *Journal of Abnormal Psychology*, 118(1), 117-130.

doi:10.1037/a0014657

Zimmerman, M. (1983a). Methodological issues in the assessment of life events: A review of issues and research. *Clinical Psychology Review*, 3(3), 339-370. doi:10.1016/0272-7358(83)90019-3

Zimmerman, M. (1983b). Weighted versus unweighted life event scores: Is there a difference? *Journal of Human Stress*, 9(4), 30-35.
doi:10.1080/0097840X.1983.9935028

Zuckerman, M. (1992). What is a basic factor and which factors are basic? Turtles all the way down. *Personality and individual differences*, 13(6), 675-681.
doi:10.1016/0191-8869(92)90238-K