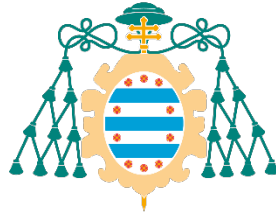


PROGRAMA DE DOCTORADO DE CIENCIAS DE LA SALUD



Universidad de Oviedo

**Tesis Doctoral**

**CONSUMO DE DROGAS Y CONDUCTA SUICIDA EN LA  
ADOLESCENCIA: EL PAPEL DE LA FAMILIA**

Doctoranda

DALILA ESLAVA PÉREZ

Directores

SUSANA AL-HALABÍ DÍAZ

VÍCTOR JOSÉ VILLANUEVA BLASCO

## RESUMEN DEL CONTENIDO DE TESIS DOCTORAL

1.- Título de la Tesis	
Español: Consumo de drogas y conducta suicida en la adolescencia: el papel de la familia	Inglés: Drug use and suicidal behavior in adolescence: the role of the family

2.- Autor	
Nombre: DALILA ESLAVA PÉREZ	DNI/Pasaporte/NIE:
Programa de Doctorado: CIENCIAS DE LA SALUD	
Órgano responsable: CENTRO INTERNACIONAL DE POSTGRADO	

### RESUMEN (en español)

La adolescencia es una etapa de cambios físicos, cognitivos, psicológicos y sociales. Para algunos adolescentes particularmente vulnerables esta etapa del desarrollo evolutivo puede suponer un periodo de estrés y malestar, pudiendo iniciarse en el consumo de sustancias o presentar conducta suicida. Comprender el contexto del adolescente es primordial en el abordaje de estos fenómenos. La familia es la principal fuente de socialización en la infancia y, junto a los iguales en la adolescencia, constituye un factor de gran importancia en el desarrollo psicológico y social. La literatura señala que la comunicación o el apoyo familiar actúan como factores de protección frente a estos problemas, mientras que variables como el conflicto actúan como factores de riesgo. Además, las habilidades personales del adolescente para afrontar estas situaciones pueden influir en esta relación.

La presente tesis doctoral tiene como objetivo general profundizar en la relación de las dinámicas familiares y determinadas variables personales con el consumo de sustancias y la conducta suicida en la adolescencia. En este sentido, se desarrollaron tres estudios de investigación publicados en revistas científicas de impacto, cuyos objetivos fueron, respectivamente: (a) estudiar el papel mediador de la

impulsividad en la relación entre el conflicto familiar y el consumo de tabaco (cigarrillos convencionales y electrónicos); (b) examinar el efecto directo e indirecto del conflicto familiar en la conducta suicida a través del esquema interpersonal asertivo; y (c) explorar la relación entre las variables familiares y el consumo dual de alcohol y cannabis, el consumo de alcohol y el no consumo en función del sexo.

Los principales resultados mostraron lo siguiente: (a) un efecto indirecto entre el conflicto familiar y el consumo de cigarrillos convencionales a través de la búsqueda de sensaciones y la premeditación; en los cigarrillos electrónicos, se encontró un efecto indirecto a través de la búsqueda de sensaciones; (b) el conflicto familiar se relaciona positivamente con la conducta suicida, estando mediada la relación por el esquema interpersonal asertivo; y (c) en los chicos, la presencia de conflicto familiar aumenta la probabilidad de ser consumidor de alcohol y consumidor dual en lugar de no consumidor; en las chicas, la comunicación reduce la probabilidad de ser consumidoras de alcohol. La presencia de consecuencias por incumplir las normas reduce la probabilidad de ser consumidor dual en lugar de no consumidor o consumidor de alcohol.

Estos hallazgos confirman la relevancia de las variables familiares en la probabilidad de consumir sustancias y manifestar conducta suicida. Asimismo, destacan como variables mediadoras las habilidades de regulación emocional, motivo por el cuál deberían ser integradas en el diseño de las estrategias preventivas y de tratamiento.

### **RESUMEN (en inglés)**

Adolescence is a period of physical, cognitive, psychological and social changes. For some adolescents who are particularly vulnerable, this developmental stage can be a period of stress and discomfort, and they may begin to use substances or present suicidal behavior. Understanding the context of the adolescent is essential in addressing these phenomena. Family is the main source of socialization in childhood and, together with peers in adolescence, therefore it is a relevant factor in their psychosocial development.

According to the literature, communication, or family support act as protective factors for these problems, while variables such as conflict act as risk factors. In addition, the adolescent's personal coping skills may influence this relationship.

The aim of this doctoral thesis is to study the relationship between family dynamics and certain personal variables with substance use and suicidal behavior in adolescence. For this purpose, several studies published in prestigious scientific journals were carried out with the following aims: (a) examining the direct and indirect effect of family conflict on tobacco (conventional cigarettes and electronic cigarettes) use through impulsivity variables; (b) examine the direct and indirect effects of family conflict on suicide behavior through the assertive interpersonal schema; and (c) examine the relationship between family variables and only alcohol use, dual use of cannabis and alcohol, or non-use according to sex.

The results showed: (a) an indirect effect between family conflict and conventional cigarettes use through sensation seeking and premeditation; in electronic cigarettes, an indirect effect was found through sensation seeking; (b) likewise, family conflict was positively related to suicidal behavior, being mediated by the assertive interpersonal schema; and (c) finally, in boys, the presence of family conflict increase the probability of being an alcohol user and dual user rather than a non-user; in girls, communication reduce the probability of being an alcohol user, and the presence of consequences for breaking the rules reduce the probability of being a dual user rather than a non-user or an alcohol user.

These findings confirm the relevance of family variables in the probability of substance use and suicidal behavior. Likewise, emotional regulation skills stand out as mediating variables, which is why they should be integrated into the design of preventive and treatment strategies.

**SR. PRESIDENTE DE LA COMISIÓN ACADÉMICA DEL PROGRAMA DE DOCTORADO EN CIENCIAS DE LA SALUD**



## FINANCIACIÓN

La publicación de los artículos “Family Conflict and the Use of Conventional and Electronic Cigarettes in Adolescence: The Role of Impulsivity Traits” y “Dual alcohol and cannabis in male and female adolescents: relationships with family variables” fue financiada por el Proyecto PII2021\_02 de la Universidad Internacional de Valencia. La presente tesis doctoral no ha obtenido ninguna otra financiación.

## AGRADECIMIENTOS

Quiero expresar mi más sincero agradecimiento a todas las personas que han formado parte de esta tesis doctoral.

A mi directora Susana. Ha sido un verdadero placer ser tu doctoranda. Me siento muy agradecida por haber compartido este camino contigo. Gracias por todo lo que me has enseñado y por ayudarme a mejorar.

A mi director Víctor. Las prácticas del grado junto a ti fueron reveladoras. Te doy las gracias por la confianza y por tus ganas de trabajar conmigo. También por sostenerme cuando me inundaron las dudas.

A mi compañera Carmela. Gracias por haberme cogido del brazo un día y no haberme soltado. No solo eres una gran profesional, sino que también tienes un corazón enorme. Nunca podré agradecerte lo suficiente todo lo que me has ayudado y enseñado genuinamente.

A mi compañero José Errasti. Gracias por haber querido formar parte de este trabajo y haber aportado tu conocimiento en las publicaciones. Me siento muy afortunada.

A mis padres. Gracias por haberme enseñado la importancia del estudio desde pequeña. Gracias, mamá, por las horas que pasaste a mi lado preguntándome la lección. Gracias, papá, por rodear la casa de libros. Os agradezco la paciencia durante este proceso, los viajes a congresos, el apoyo en los días bajos y el orgullo con el que os veo hablar de mí.

A mi hermano. Gracias por el soporte técnico y humano. Sin ti mi ordenador no sería tan buena herramienta de trabajo ni yo sería la persona que soy.

A mi familia. Gracias por haberme preguntado, escuchado y apoyado. Por haber sido un espacio de ventilación tantas veces. Por haberme entendido cuando no he podido ayudaros por estar ocupada. Os quiero muchísimo.

A Pablo. Aquella noche de agosto viendo las estrellas, tu ilusión por la vida, tu ambición y tus ganas de crecer me hicieron volver a tener ilusión en mi camino. Gracias por hacerme tan feliz.

A mis amigas. Qué hubiera hecho sin vosotras. Gracias por los espacios para poder quejarnos y llorar, pero también gracias por los bailes y el conocimiento. Sois las personas más listas que conozco.

A los profesionales y estudiantes de los centros de secundaria que me abrieron sus puertas. Sin vuestra colaboración esta tesis doctoral no hubiera sido posible. Espero de corazón que a todos os vaya bien.

A los alumnos que asistieron a mis clases como profesora asociada. He aprendido muchísimo de vosotros. Espero que haya sido recíproco.

A mis compañeros de Cruz Roja Teruel. Gracias por haberme brindado la oportunidad de trabajar como psicóloga, pero también de salir de la rutina del doctorado. Ese trabajo fue en muchas ocasiones mi descanso.

Y a los internos del Centro Penitenciario de Teruel con los que he tenido la suerte de coincidir. Nunca podría haber aprendido en los libros lo que vosotros me habéis enseñado.

## TESIS DOCTORAL COMO COMPENDIO

Esta tesis doctoral se presenta como un compendio de tres publicaciones publicadas en revistas científicas internacionales indexadas en el Journal Citation Reports (JCR). A continuación, se adjunta información sobre cada una de estas publicaciones:

Eslava, D.<sup>1</sup>, Martínez-Vispo, C.<sup>2</sup>, Villanueva-Blasco, V. J.<sup>3</sup>, Errasti-Pérez, J. M.<sup>4</sup>, y Al Halabí, S.<sup>5</sup> (2022). Family Conflict and the Use of Conventional and Electronic Cigarettes in Adolescence: The Role of Impulsivity Traits. *International Journal of Mental Health and Addiction*, 1-12. <https://doi.org/10.1007/s11469-022-00828-8>

JCR: FACTOR DE IMPACTO 2022 = 8. Cuartil: Psiquiatría (Q1). Factor de impacto 5 años: 6.4

Eslava, D.<sup>1</sup>, Martínez-Vispo, C.<sup>2</sup>, Villanueva-Blasco, V. J.<sup>3</sup>, Errasti, J. M.<sup>4</sup>, y Al Halabí, S.<sup>5</sup> (2023). Family Conflict and Suicidal Behaviour in Adolescence: The Mediating Role of the Assertive Interpersonal Schema. *Sustainability*, 15(6), 5149. <https://doi.org/10.3390/su15065149>

JCR: FACTOR DE IMPACTO 2022 = 3.9. Cuartil: Ciencias Ambientales (Q2). Factor de impacto 5 años: 4

Eslava, D.<sup>1</sup>, Martínez-Vispo, C.<sup>2</sup>, Villanueva-Blasco, V. J.<sup>3</sup>, Errasti, J. M.<sup>4</sup>, y Al Halabí, S.<sup>5</sup> (2023). Dual alcohol and cannabis in male and female adolescents: relationships with family variables. *Addictive Behaviors*, 146, 107798. <https://doi.org/10.1016/j.addbeh.2023.107798>

JCR: FACTOR DE IMPACTO 2022 = 4.4. Cuartil: Psicología Clínica (Q1). Factor de impacto 5 años: 4.3

<sup>1</sup>Dalila Eslava Pérez. Departamento de Psicología, Universidad de Oviedo.

<sup>2</sup>Carmela Martínez Vispo. Departamento de Psicología Clínica y Psicobiología, Universidad de Santiago de Compostela.

<sup>3</sup>Víctor J. Villanueva Blasco. Facultad de Ciencias de la Salud, Universidad Internacional de Valencia.

<sup>4</sup>José Manuel Errasti Pérez. Departamento de Psicología, Universidad de Oviedo.

<sup>5</sup>Susana Al-Halabí Díaz. Departamento de Psicología, Universidad de Oviedo.

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# Presentación

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La presente tesis doctoral pretende profundizar en la relación entre las dinámicas familiares y determinadas variables personales con el consumo de sustancias y la conducta suicida en la adolescencia. Para ello, se ha realizado un compendio de tres publicaciones científicas. A continuación, se explica la distribución de la tesis doctoral:

- **Introducción:** se presenta una revisión de la literatura sobre el papel que desempeñan las dinámicas familiares en la probabilidad del consumo de sustancias y la presencia de conducta suicida durante la adolescencia, así como la influencia de algunas variables personales. Se justifica esta tesis doctoral a través de lagunas y limitaciones en el campo de conocimiento actual.
- **Objetivos:** se presenta el objetivo general de la tesis doctoral y los objetivos específicos contemplados en cada uno de los artículos publicados.
- **Publicaciones:** se compilan los tres artículos científicos publicados vinculados a la tesis doctoral. A cada artículo le acompaña una ficha con la referencia en formato APA 7ª edición, el factor de impacto de la revista y el resumen en español.
- **Discusión de los resultados:** se realiza una discusión general y se recogen las limitaciones, fortalezas, líneas futuras e implicaciones prácticas de la tesis doctoral.
- **Conclusiones:** se abordan las ideas principales derivadas de los resultados de los tres artículos publicados.
- **Referencias:** se listan las referencias en formato APA 7<sup>th</sup> de los artículos y documentos utilizados en la elaboración de la introducción y la discusión de los resultados.
- **Apéndices:** se adjunta el cuadernillo de cuestionarios utilizados en este proyecto de investigación. Se incluye, en este orden: (a) cuestionario sociodemográfico elaborado *ad hoc*; (b) cuestionario de Evaluación Familiar Estratégica (EFE); (c) cuestionario sobre el consumo de alcohol, tabaco, cannabis y cigarrillos electrónicos; (d) cuestionario del Esquema Interpersonal Asertivo (AISQ), (e) Escala de Comportamiento Impulsivo (UPPS-PS) y (f) Escala Paykel de Ideación Suicida (PSS).



# Introducción

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## **1.- El papel de la familia en la adolescencia**

La adolescencia es una etapa del desarrollo que se caracteriza por la presencia de cambios físicos, cognitivos, psicológicos y sociales que requieren una adaptación para darles respuesta (Andrews et al., 2020; Steingber, 2015). Estos cambios ayudan a los adolescentes a formar su identidad y a lograr una mayor autonomía (Orben et al., 2020). En este periodo tienen lugar por primera vez ciertos problemas como el consumo de sustancias o la presencia de ansiedad (Blakemore, 2019; Sisk y Gee, 2022), pudiendo tener un impacto en la edad adulta (Wijbenga et al., 2022).

Se trata de una etapa liminal en la que se presentan retos a nivel familiar y social con diversas demandas emocionales y, a veces, los adolescentes carecen de las herramientas necesarias para atenderlas (Al-Halabí et al., 2021). Una adaptación apropiada a estos retos y cambios, que incluye habilidades como regular las emociones, entender la perspectiva de otros y manejar las interacciones sociales, puede aumentar el bienestar de los adolescentes y facilitar la transición a la adultez (Andrews et al., 2020). Sin embargo, para algunos jóvenes estos cambios pueden suponer un desajuste psicosocial, aumentando así el estrés y el malestar psicológico (Herres, 2015; Schwartz-Mette et al., 2021).

Las relaciones familiares son una pieza clave en el desarrollo psicosocial del adolescente. La familia es el contexto primigenio en el que los adolescentes definen su sentido del valor y de la pertenencia (Diamond et al., 2021). Aunque en esta etapa las amistades ganan importancia (Trucco, 2020), el sistema familiar en el que han crecido sigue siendo su principal fuente de apoyo (Buehler, 2020). La familia es un sistema complejo con sus dinámicas y vivencias concretas, y la relación mantenida con el adolescente es relevante para un adecuado ajuste psicológico y social (Smetana y Rote, 2019).

Si bien se ha hablado de la adaptación apropiada del adolescente a los cambios en este periodo, también es importante una adaptación adecuada por parte de la familia (Steingber, 2015). El sistema familiar no es estático, sino que cambia y evoluciona a lo largo de la vida. La adolescencia es un periodo de fluctuación debido a los cambios

inherentes a esta etapa del desarrollo que no solo conciernen al adolescente, sino también a todo el sistema (Bortz et al., 2019). En este proceso de cambio se cuestionan pautas existentes y surgen otras demandas nuevas más adecuadas para ese momento vital, permitiendo así el crecimiento del sistema, donde aspectos como la comunicación y el apoyo familiar son claves para el adecuado funcionamiento (Fosco y Lydon-Staley, 2020). No obstante, en ocasiones, la familia pretende mantener las pautas anteriormente establecidas, pudiendo darse conductas más hostiles y menos adaptativas, con el consiguiente conflicto entre padres e hijos (Daks y Rogge, 2020). A modo de ejemplo, en esta etapa los adolescentes empiezan a solicitar más autonomía y los padres tienen que ceder gradualmente parte de su autoridad para lograr una relación más igualitaria. No obstante, los adolescentes demandarán esta independencia antes de que los padres estén dispuestos a concederla, pudiendo crear un espacio para comunicar las necesidades y negociar o, por lo contrario, un terreno propicio para la aparición de conflictos (Mastrotheodoros et al., 2020; Procentese et al., 2019).

Dentro del proceso de evolución y cambio en el sistema, el ambiente familiar puede funcionar para ciertos problemas tanto como factor de protección como factor de riesgo. Por ejemplo, para los adolescentes la probabilidad de presentar problemas será menor cuando exista comunicación y cohesión entre los miembros, mientras que esta probabilidad aumentará cuando predomine el conflicto (Álvarez-Subiela et al., 2022; Xia et al., 2019). La comunicación permite afrontar los estresores propios de esta etapa y hablar con los adolescentes de sus preocupaciones y problemas cotidianos (Procentese et al., 2019), brindándoles el apoyo que necesitan (Wang et al., 2021b). El apoyo familiar también influye en el bienestar del adolescente (McMahon et al., 2020). Sin embargo, es menos probable que el adolescente pida ayuda a sus padres cuando la búsqueda de apoyo conduce a discusiones (Diamond et al., 2021). Por otro lado, el conflicto en la familia es una de las variables familiares más estudiadas y robustas cuando se habla de problemas en la adolescencia (Cummings et al., 2014). En sí, los conflictos son una experiencia normal durante este periodo y a lo largo de la vida. Su presencia no debería suponer un desajuste, especialmente si los padres muestran comprensión y los conflictos no son intensos o se resuelven (Smetana y Rote, 2019). No

obstante, la alta intensidad, que puede ser el resultado de una autorregulación emocional aún en desarrollo en los adolescentes (Mastrotheodoros et al., 2020), y una vivencia e interpretación negativa de los conflictos (Davies et al., 2021), pueden dar lugar a dicho desajuste, teniendo consecuencias significativas en la adaptación del adolescente (Weymouth et al., 2016).

La regulación de emociones es un elemento clave para entender las conductas problema (Kim et al., 2020). Se entiende como regulación emocional al proceso por el cual las personas influyen en cómo experimentan y expresan sus emociones (Gross, 1998). Además, variables personales como los rasgos de impulsividad influyen en la forma en la que los adolescentes regulan las emociones surgidas en situaciones como los conflictos familiares (Pihet et al., 2012) y, a su vez, estos rasgos hacen más probable la presencia de conductas problema como una posible respuesta al malestar generado (Junglen et al., 2019; Trujillo et al., 2016). También, en la regulación emocional es relevante la forma en la que el adolescente interpreta la información que le rodea (Davies et al., 2021). De esta manera, los adolescentes “leen” o piensan sobre lo que ocurre a su alrededor según su experiencia, dando lugar a una serie de emociones más o menos intensas o a comportamientos disfuncionales (Hovrud et al., 2019; Şimşek et al., 2021). Elementos como el llamado esquema interpersonal asertivo, un modelo elaborado por Vagos y Pereira (2010) sobre la asertividad, permiten relacionarse con el mundo social de una forma más afable. Estas habilidades ayudan a entender las discusiones como algo manejable (Vagos y Pereira, 2010), permitiendo que el adolescente perciba con menos estrés las discusiones en el hogar.

Los programas de prevención de conductas de riesgo en la adolescencia y los diferentes tratamientos terapéuticos en esta etapa han obtenido mejores resultados cuando se ha incluido a la familia y se ha trabajado con ella (Al-Halabí y Fonseca-Pedrero, 2023b; Hartnett et al., 2016; Weinstein y West., 2021), así como cuando se han introducido las habilidades emocionales (Busby et al., 2020). Además, el fomento de las habilidades parentales positivas está relacionado con el desarrollo de competencias personales y sociales en los adolescentes (Servicio de Información e Investigación Social [SIIS], 2023). Por lo que, al intervenir en los problemas de la adolescencia es

importante considerar la influencia del sistema familiar, ya que, junto a los factores individuales, influye en la probabilidad de aparición y consolidación de dichos problemas.

En la presente tesis doctoral se pretende profundizar en el papel de las dinámicas familiares en dos fenómenos que pueden tener su inicio en la adolescencia: el consumo de sustancias y la conducta suicida. Además, se pretende entender cómo determinadas variables personales pueden influir en esta relación.

## **2.- Dinámicas familiares y consumo de sustancias**

El consumo de drogas suele aparecer por primera vez en la adolescencia (Blakemore, 2019; Fernández-Artamendi et al., 2021a). Se trata de un periodo clave para la experimentación de diversas conductas y estilos de vida como parte del desarrollo de la identidad del adolescente y de la defensa de su autonomía (Fonseca-Pedrero et al., 2023c). Algunos autores señalan que puede representar un ritual de tránsito entre la adolescencia y la etapa adulta (Alfonso et al., 2009; Al-Halabí et al., 2021). No obstante, preocupa el acercamiento a las sustancias en estas edades, no solo por las consecuencias neurocognitivas que presenta (Duperrouzel et al., 2020; Smith et al., 2015), sino también porque el consumo a edades más tempranas supone mayores tasas de consumo en la adultez (Stamates et al., 2021; Terry-McElrath et al., 2017).

En España, de acuerdo con las encuestas epidemiológicas sobre el consumo de sustancias, el alcohol es la sustancia más consumida en los jóvenes entre 14 y 18 años. El 73.9% lo consumieron alguna vez en la vida, el 70.5% en los últimos 12 meses y el 53.6% en los últimos 30 días (Observatorio Español de Drogas y las Adicciones, 2021). Su consumo es menos frecuente que en los adultos, pero las cantidades de ingesta son más altas (Ryan et al., 2019). García et al. (2019) señalan que el alcohol está aceptado socialmente y a pesar de ser ilegal para los menores de 18 años, un gran número de ellos lo prueba por primera vez en casa bajo la aprobación de los padres (Observatorio Español de Drogas y las Adicciones, 2021). El consumo de alcohol parece mantenerse en los jóvenes no tanto por miedo a la exclusión de los pares, sino por la aceptación social y cultural de su consumo en situaciones de ocio (Sjödín et al., 2021). De hecho, el

motivo más elegido por los adolescentes para beber alcohol, con un 70.7%, fue “es divertido o anima las fiestas” (Observatorio Español de Drogas y las Adicciones, 2021).

La segunda sustancia más consumida es el tabaco. Los datos indican que el 38.2% lo consumieron alguna vez en la vida, el 30.7% en los últimos 12 meses y el 23.9% en los últimos 30 días. Además, el 9.2% indicaron ser consumidores diarios (Observatorio Español de Drogas y las Adicciones, 2021). La prevalencia de uso ha disminuido en los últimos años. No obstante, ha surgido una nueva modalidad de consumo: los cigarrillos electrónicos o vapeadores (Park-Lee et al., 2021). Estos dispositivos calientan un líquido con sabor que contiene diferentes niveles de nicotina y crean un aerosol que se inhala al usarlo (World Health Organization [WHO], 2022). Es importante destacar que el consumo de cigarrillos electrónicos ha aumentado significativamente, pues en 2021 un 44.3% de adolescentes lo utilizaron frente al 17% en 2014 (Observatorio Español de Drogas y las Adicciones, 2021), posiblemente debido a esa baja percepción de riesgo (Intravia et al., 2022) y la publicidad recibida (Lee et al., 2020). Además, el uso de cigarrillos electrónicos se relaciona con un mayor riesgo de iniciarse en el consumo de cigarrillos convencionales (Alonso-Diego et al., 2023). Todas las formas de consumo de tabaco son dañinas para la salud, y tanto los cigarrillos convencionales como los cigarrillos electrónicos perjudican el desarrollo neurocognitivo del adolescente (Hrywna et al., 2020; Tobore, 2019). Sin embargo, tras los cigarrillos electrónicos existe una agresiva campaña publicitaria, tanto por el diseño atractivo, como por las personas de influencia que los usan (Yang et al., 2021), dando una imagen de menos riesgo para la salud (Bhatt et al., 2020) y pudiendo ser una puerta de entrada para el consumo de tabaco (Alonso-Diego et al., 2023). Asimismo, el hecho de que sea un producto relativamente nuevo y que sus consecuencias a largo plazo aun no estén claras puede contribuir a esta imagen de inocuidad (WHO, 2022).

Por último, el cannabis es la tercera sustancia más consumida por los adolescentes españoles: el 28.6% lo consumieron alguna vez en la vida, el 22.2% en los últimos 12 meses y el 14.9% en los últimos 30 días (Observatorio Español de Drogas y las Adicciones, 2021). Actualmente la percepción de riesgo del cannabis ha disminuido, aceptándose y normalizándose el consumo, e incluso diferenciándose de otras drogas

ilegales, que los adolescentes sí perciben como peligrosas (Bilgrei et al., 2021). La industria del cannabis ha colaborado en esta percepción, desarrollado estrategias para fomentar una visión inocua e, incluso, beneficiosa (Isorna et al., 2022; Isorna y Villanueva-Blasco, 2022). Además, hay adolescentes que verbalizan que el cannabis fue la primera sustancia que consumieron (Fairman et al., 2018), invirtiendo así el patrón habitual del inicio de consumo *Gateway Hypothesis* (primero se comienza consumiendo alcohol o tabaco y, después, cannabis) (Kandel y Kandel, 2014). No obstante, este consumo tiene importantes implicaciones en la salud del adolescente, como mayor riesgo de presentar psicosis en la edad adulta (Kiburi et al., 2021), depresión e ideación suicida (Gobbi et al., 2019). Además, al hablar de consumo de cannabis, en la mayoría de los casos se refiere a consumo dual de cannabis-tabaco (Villanueva-Blasco et al., 2022; Villanueva-Blasco et al., 2023), pues el 87.7% de los adolescentes en España lo consumen mezclado con tabaco (Observatorio Español de Drogas y las Adicciones, 2021).

Los adolescentes que realizan estas conductas presentan peor ajuste psicosocial como discusiones importantes en casa, problemas académicos, conductas sexuales de riesgo u otros consumos (Observatorio Español de Drogas y las Adicciones, 2021). De hecho, una práctica habitual entre los adolescentes es el policonsumo, que se refiere al consumo de dos o más sustancias dentro de un periodo temporal. En España, 46.3% de los adolescentes entre 14 y 18 años lo han realizado alguna vez en la vida, el 37.7% en los últimos 12 meses y el 26.9% en los últimos 30 días (Observatorio Español de Drogas y las Adicciones, 2021). Bajo las prácticas del policonsumo, en los últimos años se ha detectado un patrón usual: el consumo dual de alcohol y cannabis (Lees et al., 2021; Thompson et al., 2021). Un reciente estudio mostró que el 54% de adolescentes había consumido tanto alcohol como cannabis en los últimos 12 meses (Thompson et al., 2021). Este patrón no debe pasar desapercibido, pues el consumo dual de alcohol y cannabis es más perjudicial que el consumo de una de las dos sustancias. Este consumo dual implica mayor frecuencia y cantidad de consumo de ambas sustancias (Patrick et al., 2018), mayor probabilidad de tener dependencia del consumo de alcohol a largo plazo (Wardell et al., 2020) y de presentar problemas psicológicos (Yurasek et al., 2017).

A la hora de abordar el consumo de sustancias, es importante considerar el contexto en el que se encuentra la persona (Zuckermann et al., 2020). El consumo del adolescente guarda una relación con los pares con los que se relaciona (Henneberger et al., 2021), con el barrio en el que vive (Trucco, 2020) o con su familia (Becoña et al., 2012; Xia et al., 2019). Como se ha mencionado antes, el ambiente familiar influye en el desarrollo del adolescente y, además, guarda una estrecha relación con el consumo de sustancias. Fernández-Artamendi et al. (2021a) señalan que variables familiares como la presencia de afecto y apoyo, la comunicación positiva y el control parental actúan como factores de protección. Por otro lado, mencionan que los conflictos, la ausencia de comunicación y de relaciones afectivas, y las normas caóticas se presentan como factores que favorecen el consumo de sustancias. A continuación, se va a profundizar en ello.

Carver et al. (2016) indican que una comunicación adecuada y cálida entre padres e hijos disminuye la probabilidad del consumo de sustancias. Una buena comunicación familiar proporciona a los adolescentes herramientas más adecuadas para gestionar los cambios de esta etapa y también convierte a los padres en una fuente de apoyo (Wang et al., 2021b). La presencia de una comunicación de calidad se ha relacionado con menos tasas de consumo de alcohol, tabaco, tanto en cigarrillos convencionales como cigarrillos electrónicos (Szoko et al., 2021), y cannabis (Russell et al., 2017). Además, en los programas de prevención familiar del consumo de sustancias, la comunicación en la familia es un elemento clave, incluyendo conversaciones abiertas sobre las actividades que hacen y con quien están, o pasar tiempo de calidad con ellos (Kristjansson et al., 2020).

Por el contrario, el conflicto en la familia es la variable familiar que guarda una relación más cercana con el consumo de sustancias (Best et al., 2014). La presencia de conflicto familiar durante la adolescencia se relaciona con mayores tasas de consumo de alcohol (Yap et al., 2017), de consumo de cigarrillos convencionales (Yu, 2019) y cigarrillos electrónicos (Finan et al., 2022) y de consumo de cannabis (Meier et al., 2019). El conflicto familiar influye en el bienestar del adolescente y cuando escasean las herramientas adaptativas para hacerle frente, el consumo de sustancias puede ser usado



como una estrategia de afrontamiento (Wang et al., 2021a). Además, según Pihet et al. (2012), los adolescentes con dificultades para regular sus emociones y con puntuaciones altas en impulsividad presentan más conductas problema. Por lo que variables personales como los rasgos de impulsividad pueden tener un papel en esta relación (Fernández-Artamendi et al., 2021b; Trujillo et al., 2016).

Las dinámicas familiares se consideran en el estudio del consumo de sustancias en la adolescencia y en las prácticas de intervención. No obstante, es necesario seguir investigando en esta línea para poder aportar información relevante sobre esta relación.

### **3.- Dinámicas familiares y conducta suicida**

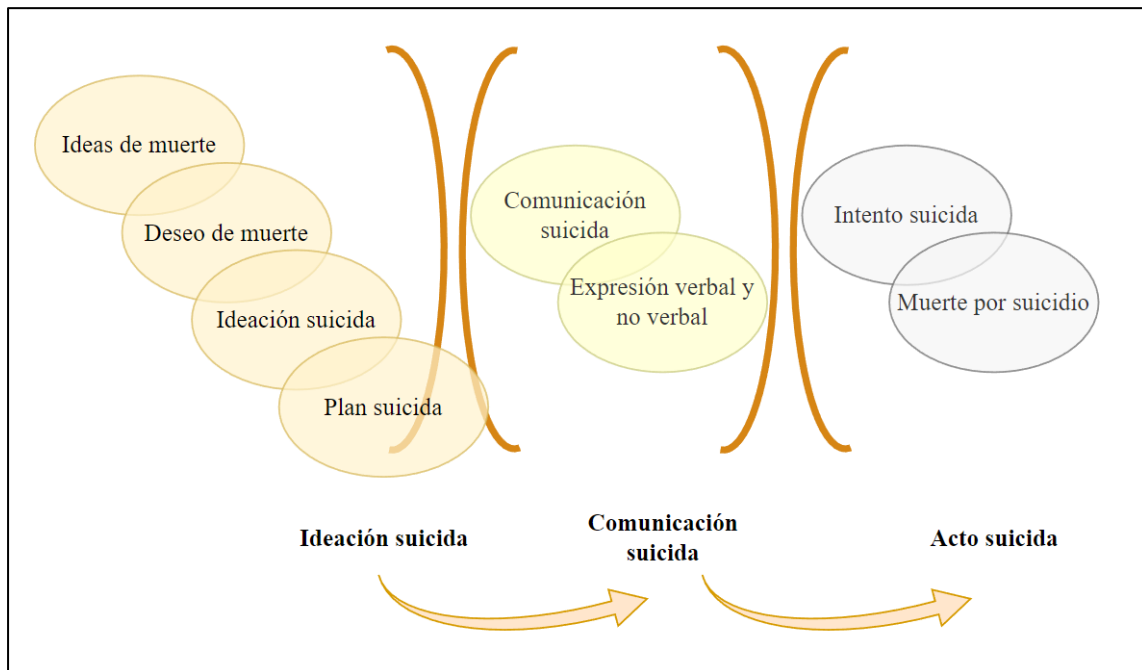
El suicidio es la primera causa de muerte no natural entre los adolescentes de entre 15 y 19 años en España (Instituto Nacional de Estadística, 2022) y en el mundo (World Health Organization [WHO], 2021). Diversos estudios estiman que un 30% de los adolescentes españoles presentan ideación suicida, mientras que el 4% manifiestan haber intentado suicidarse (Bousoño et al., 2017; Fonseca-Pedrero et al., 2017). Según los últimos datos, en una clase de 25 estudiantes, se estima que 1 persona podría tener un riesgo elevado de conducta suicida (Fonseca-Pedrero et al., 2023c). La adolescencia parece ser un periodo vulnerable (Fonseca-Pedrero et al., 2022b) ya que en esta etapa aparecen por primera vez este tipo de pensamientos junto con las primeras crisis existenciales (Glenn et al., 2020).

La conducta suicida es un fenómeno complejo, multidimensional y multifactorial de origen psicológico y con una profunda raigambre social y cultural (Al-Halabí y Fonseca-Pedrero, 2021). La conducta suicida se caracteriza por la presencia de sufrimiento y un dolor psicológico que es vivido por la persona como “intolerable, inescapable e interminable” (Chiles et al., 2019). Ante esta situación, la persona se encontraría en una situación límite en la que la muerte por suicidio se presenta como una solución aceptable para resolver ese dolor inmanejable (Al-Halabí y García-Haro, 2021; Fonseca-Pedrero et al., 2022a). Esta conducta recoge una variedad de manifestaciones desde la ideación suicida y la planificación, pasando por la comunicación suicida, hasta

los intentos y la muerte por suicidio (Al-Halabí y Fonseca-Pedrero, 2021; O'Connor y Nock, 2014) (Figura 1).

### Figura 1

*Manifestaciones de la conducta suicida según su naturaleza*



Nota. Adaptado de Fonseca-Pedrero y Pérez de Albéniz (2020).

La conducta suicida no debe entenderse únicamente como equivalente a la muerte por suicidio. Aunque las diferentes manifestaciones de la conducta suicida se encuentran en un continuo de gravedad (Al-Halabí y García-Haro, 2021), este comportamiento humano no se ajusta bien a una trayectoria lineal y se caracteriza por una alta interactividad, dinamismo y pluralidad.

De acuerdo con García-Haro et al. (2020, 2023) existen dos perspectivas diferenciadas en la conceptualización de la conducta suicida: (1) el enfoque tradicional biomédico y (2) la perspectiva contextual-fenomenológica. La primera entiende la conducta suicida como un síntoma derivado de un problema psicológico o una etiqueta diagnóstica, como, por ejemplo, un adolescente con depresión mayor. No obstante, los autores critican este enfoque debido a sus características reduccionistas y mecanicistas.

La segunda perspectiva, según Al-Halabí et al. (2021) y García-Haro et al. (2018), pone el foco en las personas, los valores, el sentido, el contexto biográfico, la intencionalidad, los problemas humanos o el mundo vivido. Unido a esto, Espada-Sánchez et al. (2023) señalan que es común que los adolescentes con conductas suicidas estén en contextos vitales problemáticos como situaciones de acoso en la escuela o familias disfuncionales, donde predomina el conflicto y la falta de comunicación, percibiéndose incapaces de afrontar estos problemas adecuadamente.

Por otro lado, en los últimos años han surgido una serie de teorías enmarcadas en el modelo *Ideation-to-Action* que defienden la idea de que los factores relacionados con la ideación suicida son diferentes a los de los intentos de suicidio (O'Connor y Kirtley, 2018). Esta es una perspectiva más comprensiva a la hora de abordar el problema desde la prevención y la intervención (O'Connor y Portzky, 2018). Dentro de este modelo, Al-Halabí y Fonseca-Pedrero (2023a) recogen las siguientes teorías: (1) teoría interpersonal del suicidio, (2) modelo volitivo-motivacional integrado, (3) teoría de los tres pasos y (4) teoría de la vulnerabilidad fluida. En la tabla 3 se encuentra la información más detallada.

### Tabla 3

*Teorías explicativas sobre la conducta suicida recogidas en el marco Ideation-to-Action* (Al-Halabí y Fonseca-Pedrero, 2023a)

Teorías	Explicación
Teoría interpersonal del suicidio (Joiner, 2005)	La conducta suicida se puede explicar bajo dos variables principales: “baja sensación de pertenencia social” y “percepción de ser una carga para los demás”.
Modelo volitivo-motivacional integrado (O'Connor, 2011)	La percepción de derrota y atrapamiento influyen en la aparición de ideación suicida. Un grupo de factores, denominados moderadores volitivos, determinarían la transición de la ideación suicida a los intentos de suicidio.

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Teoría de los tres pasos (Klonsky et al., 2021)	La ideación suicida surge del dolor y la desesperanza. Se incrementa cuando hay falta de conexión con los demás, evolucionando al intento de suicidio cuando se ha adquirido capacidad para realizarlo.
Teoría de la vulnerabilidad fluida (Rudd, 2006)	Recoge la naturaleza dinámica e interactiva de la conducta suicida a través de aspectos cognitivos, emocionales, psicológicos y comportamentales.

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Según estos modelos, el foco debería estar en los siguientes factores: (1) la percepción de ser una carga para la familia, las amistades y uno mismo, (2) la pertenencia frustrada o sentirse solo y desconectado de la familia, las amistades y otros círculos sociales importantes para la persona, (3) la sensación de atrapamiento o percepción de estar bloqueado sin posibilidad de cambiar aspectos de sí mismo y (4) la desesperanza, es decir, tener una visión negativa del futuro y de la posibilidad de que las cosas cambien (Fonseca-Pedrero et al., 2022b). Estos puntos se recogen en un sistema relevante para la presente tesis doctoral: la familia, que constituye un componente esencial y común a todas las intervenciones psicológicas con apoyo empírico para el abordaje clínico de la conducta suicida en población adolescente (Al-Halabí y Fonseca-Pedrero, 2023b).

Una buena relación entre los miembros de la familia, que incluya una comunicación abierta, relaciones afectuosas y una supervisión adecuada que establezca límites y a la vez fomente la autonomía, favorece el bienestar del adolescente y actúa como factor de protección frente a la conducta suicida (Ati et al., 2020). Por el contrario, el conflicto familiar es uno de los factores de riesgo más robustos para diferentes problemas en esta etapa y dentro de las variables familiares estudiadas, también guarda una estrecha relación con la conducta suicida (Ati et al., 2020). La presencia del conflicto familiar aumenta la probabilidad de presentar ideación suicida (DeVillie et al., 2020) y guarda relación con los intentos de suicidio (Zygo et al., 2019). Es probable que la presencia habitual de disputas promueva sentimientos de soledad y

abandono en los adolescentes (Consoli et al., 2013), siendo aspectos relacionados con los modelos del marco *Ideation-to-Action* (Al-Halabi y Fonseca-Pedrero, 2023a).

Para muchos adolescentes, los conflictos en la familia pueden desbordar sus habilidades de afrontamiento, lo que hace que aquellos con menos estrategias sean especialmente vulnerables (Carballo et al., 2020). Además, una interpretación negativa de estos conflictos, en la que existe una visión pesimista del curso de los acontecimientos familiares, puede influir en el bienestar del adolescente y en su reacción de angustia en las siguientes disputas (Davies et al., 2021), estando esta angustia asociada con la conducta suicida (Kim, 2021). En cambio, una regulación emocional adecuada y la interpretación social de las disputas como gestionables, algo que permite el esquema interpersonal asertivo formulado por Vagos y Pereira, (2010), proporcionará al adolescente habilidades para manejar las situaciones. De hecho, una revisión reciente de programas dirigidos a personas en riesgo de suicidio señaló que las intervenciones más eficaces incluían, además del abordaje familiar, habilidades como la regulación de las emociones (Busby et al., 2020).

En conclusión, las variables familiares están implicadas en el estudio de la conducta suicida en la adolescencia, en los modelos relevantes que intentan explicar el fenómeno y en su prevención y abordaje clínico, por lo que es necesario aportar más información científica clarificadora.

#### **4.- Justificación de la tesis doctoral**

El consumo de sustancias y la conducta suicida durante la adolescencia son dos problemas relevantes para la sociedad actual. La necesidad de intervenir en ambas está recogida en la “Agenda 2030 sobre el Desarrollo Sostenible” (Organización de las Naciones Unidas [ONU], s.f.) en el objetivo 3 “Salud y Bienestar”: (1) “Punto 3.4. Reducir en un tercio la mortalidad prematura por enfermedades no transmisibles mediante la prevención y el tratamiento y promover la salud mental y el bienestar” y (2) “Punto 3.5. Fortalecer la prevención y el tratamiento del abuso de sustancias adictivas, incluido el uso indebido de estupefacientes y el consumo nocivo de alcohol”.

Si bien actualmente existe evidencia respecto al papel de las dinámicas familiares en el consumo de sustancias y la conducta suicida (Fonseca-Pedrero et al., 2022a; Van Ryzin et al., 2016; Weymouth et al., 2016), es necesario seguir profundizando en este campo de conocimiento. Con esta tesis doctoral se ha pretendido aportar información de valor sobre estos dos fenómenos, teniendo en cuenta el contexto primigenio de los adolescentes (la familia), así otras variables personales que puedan estar ejerciendo su influencia (Diamond et al., 2021; Skeer et al., 2009), permitiendo un abordaje preciso y adecuado.

La atención en estos aspectos no es banal. Lo que ocurre en la niñez y la adolescencia es el cimiento de la vida adulta (Fonseca-Pedrero et al., 2023c; Wijnbenga et al., 2022). La edad pico de comienzo de cualquier trastorno mental se sitúa alrededor de los 14.5 años (Solmi et al., 2022), dato que subraya la necesidad de intervenir y promover la salud mental en etapa (Fonseca-Pedrero et al., 2023b; Fonseca-Pedrero et al., 2023c). Cada persona carga un bagaje de aprendizajes, así como un repertorio de respuestas de regulación necesarias para atender a los hijos (Schwartz et al., 2012). En muchos casos los progenitores lo harán lo mejor que sepan y puedan, aunque -en ocasiones- no sea la forma más adecuada para el desarrollo saludable de sus hijos. Además, la forma en cómo se resuelven los conflictos familiares puede influir en las habilidades de regulación emocional de los adolescentes (Kim et al., 2020). Es por ello que, no solo es importante conocer qué tipo de dinámicas familiares aumentan o disminuyen la probabilidad de consumo de sustancias o de presentar conducta suicida, sino que también hay que conocer las variables personales de los adolescentes que puedan estar mediando esta relación (Álvarez-Subiela et al., 2022; Fernández-Artamendi et al., 2021b). Asimismo, en consonancia con la literatura científica en los últimos años, es importante considerar las diferencias de género (Becker et al., 2016; Canals et al., 2019; Miranda-Mendizabal et al., 2019).

El consumo de sustancias es un fenómeno dinámico, con nuevos dispositivos de consumo (Park-Lee et al., 2021) y nuevos patrones relacionados con el policonsumo (Chaffee, 2022) y los espacios de ocio (Chan et al., 2023). En el caso de la conducta suicida, aún hay mucho camino que recorrer, ya que, aunque hay teorías recientes que

aportan información valiosa sobre este fenómeno, aún no hay certeza de cómo interactúan algunos factores entre sí (Al-Halabí y Fonseca-Pedero, 2023a). Estudios recientes apoyan la importancia de la regulación emocional en ambos fenómenos junto con la implicación de rasgos de impulsividad (González-Roz et al., 2023; Weiss et al, 2022), y, además, estas habilidades emocionales, junto a la reducción de eventos estresantes, son objetivos destacados en la prevención e intervención de los problemas psicológicos (Fonseca-Pedrero et al., 2023b).

Esta tesis doctoral pretende aportar conocimiento al estudio del consumo de sustancias y la conducta suicida en la adolescencia, teniendo como base las dinámicas familiares como factor en común, con la aspiración de tener implicaciones aplicadas en el plano de la investigación, la prevención y el tratamiento.

# Objetivos

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El objetivo general de la presente tesis doctoral es profundizar en la relación de las dinámicas familiares y determinadas variables personales con el consumo de sustancias y la conducta suicida en la adolescencia. Los objetivos específicos, según los artículos, son los que se detallan a continuación:

**Artículo 1:** *Family Conflict and the Use of Conventional and Electronic Cigarettes in Adolescence: The Role of Impulsivity Traits*

- Conocer el papel mediador de la impulsividad en la relación entre el conflicto familiar y el consumo de tabaco (cigarrillos convencionales y cigarrillos electrónicos).

**Artículo 2:** *Family Conflict and Suicidal Behaviour in Adolescence: The Mediating Role of the Assertive Interpersonal Schema*

- Examinar el efecto directo e indirecto del conflicto familiar en la ideación suicida, en los intentos suicidas y en la puntuación total de la conducta suicida, evaluada mediante la escala Paykel de suicidio, a través del esquema interpersonal asertivo.

**Artículo 3:** *Dual alcohol and cannabis use in male and female adolescents: Relationships with family variables*

- Explorar la relación entre las variables familiares (comunicación, conflicto, apoyo, normas y consecuencias) y el consumo dual de alcohol y cannabis, el consumo de alcohol y el no consumo en función del sexo.

# Publicaciones

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## Artículo 1. Family Conflict and the Use of Conventional and Electronic Cigarettes in Adolescence: The Role of Impulsivity Traits

Eslava, D., Martínez-Vispo, C., Villanueva-Blasco, V. J., Errasti-Pérez, J. M., y Al-Halabí, S. (2022). Family Conflict and the Use of Conventional and Electronic Cigarettes in Adolescence: The Role of Impulsivity Traits. *International Journal of Mental Health and Addiction*, 1-12.

<https://doi.org/10.1007/s11469-022-00828-8>



JCR: FACTOR DE IMPACTO = 11.555. Cuartil: Psychiatry (Q1)

### Resumen

**Introducción:** El consumo de tabaco en la adolescencia es un problema en todo el mundo debido a sus consecuencias negativas en el desarrollo físico y psicosocial de las personas. En la adolescencia, el conflicto familiar guarda relación con este consumo. Investigaciones anteriores han sugerido que esta relación podría estar mediada por rasgos de personalidad. El objetivo de este estudio fue examinar los efectos directos e indirectos del conflicto familiar en el consumo de tabaco (cigarrillos convencionales y electrónicos) a través de constructos específicos de impulsividad. **Método:** La muestra estuvo formada por 879 adolescentes (56,4% varones;  $M(SD)$ edad = 14,25 (1,88) años). **Resultados:** El análisis de mediación múltiple mostró que no había un efecto directo estadísticamente significativo entre el conflicto familiar y el consumo de tabaco. Sin embargo, se encontró un efecto indirecto entre el conflicto familiar y el consumo de cigarrillos convencionales a través de la búsqueda de sensaciones y la premeditación. Con los cigarrillos electrónicos, se encontró un efecto indirecto estadísticamente significativo a través de la búsqueda de sensaciones. **Conclusiones:** Estos resultados

tienen implicaciones en términos de prevención y tratamiento del tabaquismo en la adolescencia.

*Palabras clave:* Tabaco, cigarrillos electrónicos, conflicto familiar, impulsividad, adolescentes.



## Family Conflict and the Use of Conventional and Electronic Cigarettes in Adolescence: the Role of Impulsivity Traits

D. Eslava<sup>1</sup> · C. Martínez-Vispo<sup>2</sup> · V. J. Villanueva-Blasco<sup>3</sup> · J. M. Errasti-Pérez<sup>1</sup> · S. Al-Halabi<sup>1</sup>

Accepted: 13 April 2022  
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### Abstract

Adolescents' use of tobacco is a worldwide problem due to the negative consequences on their physical and psychosocial development. One contextual variable related to tobacco use is family conflict. Previous research has suggested that the relationship between family conflict and tobacco use could be mediated by personality traits. The aim of this study is to examine the direct and indirect effects of family conflict on tobacco use (conventional and electronic cigarettes) through specific impulsivity constructs. The sample comprised 879 adolescents (56.4% male;  $M(SD)$ age = 14.25 (1.88) years). Multiple mediational analysis showed that there was no significant direct effect between family conflict and tobacco use; however, an indirect effect was found between family conflict and conventional cigarette use through sensation seeking and premeditation. With electronic cigarettes, a significant indirect effect was found via sensation seeking. These findings have implications in terms of prevention and treatment of tobacco use during adolescence.

**Keywords** Tobacco · Electronic cigarettes · Family conflict · Impulsivity · Adolescents

### Introduction

Tobacco use is a problem with particular social and clinical significance in the young population since nicotine exposure during this period affects the developing brain, especially those areas related to impulsivity, attention, and mood (U.S. Department of Health & Human Services, 2016). The World Health Organization (WHO, 2020) has stated that all forms of tobacco use are harmful, and previous studies have reported that both conventional cigarettes (CC) and electronic cigarettes (EC) use constitute a relevant public health concern due to their harmful effects on adolescents' development (Hrywna et al., 2020; Tobore, 2019).

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✉ V. J. Villanueva-Blasco  
vjvillanueva@universidadviu.com

<sup>1</sup> University of Oviedo, Oviedo, Spain

<sup>2</sup> Department of Psychology, University of Valladolid, Valladolid, Spain

<sup>3</sup> Faculty of Health Sciences, Valencian International University, C/ Pintor Sorolla, 21, 46002 Valencia, Spain

In Europe, 20% of young people aged 15–24 currently smoke conventional cigarettes (CC) and at least 18% have tried ECs (Eurobarometer, 2021). In Spain, tobacco use is a major public health concern since among 14- to 18-year-olds, 26.7% report using CC in the previous month, and 9.8% report daily use. In addition, 14.9% of adolescents report using EC in the previous month (Observatorio Español de las Drogas y de las Adicciones, 2019).

Some contextual variables are associated with substance use during adolescence, including tobacco. Previous research shows the relevance of peer influence (Henneberger et al., 2021), socioeconomic status (Polanska et al., 2022), and family factors like permissive parental style, poor communication among family members, or parental substance use (Loke & Mak, 2013; Thomas et al., 2016). Focusing on the latter, family conflict is the most closely related to substance use (Best et al., 2014; Loke & Mak, 2013; Rajesh et al., 2015). Literature suggests that the distress family conflict can generate in adolescents (Casey & Jones, 2010; Luk et al., 2018) could be associated with substance use as a coping strategy (Cornellà-Font et al., 2020). However, scant research has explored personality variables that may mediate between family conflict and tobacco use, specifically with EC. For instance, Fernández-Artamendi et al. (2021) found that young people's internal discomfort tends to be externalized through personality characteristics related to their poor ability to regulate negative emotions. Cyders et al. (2016) indicate that impulsivity increases the likelihood of responding to negative emotions with risky behaviors, including substance use. Therefore, identifying mediators of the association between family conflict and smoking would be warranted to determine potential treatment and prevention targets.

A personality variable that could be mediating the relationship between family conflict and tobacco use is impulsivity (Kale et al., 2018). This personality variable is defined as “behavior without adequate thought, the tendency to act with less forethought than do most individuals of equal ability and knowledge, or a predisposition toward rapid, unplanned reactions to internal or external stimuli without regard to the negative consequences of these reactions” (International Society for Research on Impulsivity, 2019). Strickland & Johnson (2020) suggested that the concept of impulsivity includes several independent psychological constructs. Psychometric studies have shown that impulsive traits and behaviors are uncorrelated onto a single variable (Caswell et al., 2015). Research suggests that it would be more accurate to examine specific impulsivity constructs instead of using impulsivity as a single construct (Cyders et al., 2007; Whiteside & Lynam, 2001). These authors proposed a five-dimension model of impulsivity (negative urgency, positive urgency, sensation seeking, premeditation, and perseverance), which has gained both theoretical and empirical support (Wang et al., 2020). Following this model, such dimensions are not considered variations of impulsivity, but psychological processes that lead impulsive behavior (Whiteside & Lynam, 2001). Research has consistently found that these impulsive traits are related to adolescent conventional tobacco smoking (Bos et al., 2019). However, few studies have examined the relationship between specific impulsivity dimensions and EC use in adolescents. For instance, sensation seeking has been associated with greater odds of EC use in adolescents (Case, et al., 2017; Hoffmann, 2021), but other impulsivity dimensions have only been examined in adults (Kale et al., 2020).

As noted above, impulsivity traits could be mediating the relationship between family conflict and current tobacco use. In this vein, Trujillo et al. (2016) found that family conflict was not directly related to the frequency of drug use (alcohol and marijuana), but instead there was a significant indirect effect through sensation seeking. Moreover, Mlouki et al. (2021) also found a significant indirect effect of intrafamilial adverse childhood experiences and substance use, including tobacco use, through impulsivity.



To our knowledge, no studies have examined the role of impulsivity traits in the relationship between family conflict and different forms of current tobacco use, including CC and EC. Identifying these associations could deepen our understanding of adolescent tobacco use, as well as helping to identify variables that could be targeted by prevention programs, taking the role of new tobacco products (i.e., e-cigarettes) into account. Therefore, the present study aims to examine the mediating role of impulsivity variables between family conflict and adolescents' tobacco use as follows: (1) examining the direct and indirect effect of family conflict on CC use through impulsivity variables; and (2) examining the direct and indirect effect of family conflict on EC use through impulsivity variables.

## Method

This is a cross-sectional study, and the STROBE checklist can be consulted in the Supplementary material.

## Participants

The target population comprised 912 Spanish adolescents from two state-funded secondary schools in the east of Spain, Teruel, where most schools receive public funds (91.7%; EPDATA, 2021). Since, in Spain, the assignment of public school centers is made mainly by proximity to the parents' home or employment (Organic Law 3/2020, Boletín Oficial del Estado, 2020), the socio-economic profile of the participating students is heterogeneous. The inclusion criteria for participating in the study were (1) providing parents' or legal guardian's written informed consent and (2) being willing to participate. The vast majority (96%) of the total target population agreed to participate. Thus, the final study sample comprised 879 participants (56.4% male,  $M_{age} = 14.25$ ;  $SD = 1.88$ , range = 11–19).

## Instruments

A sociodemographic record form was used to collect age, sex, ethnicity, school year, and other school-related data. The following instruments were used to collect the remaining data for the study:

*Current conventional and electronic cigarette use Questionnaire* (from the survey ESTUDES 2012, Observatorio Español de las Drogas y de las Adicciones, 2014). Current tobacco use is measured using the question, "How often have you smoked tobacco (conventional cigarettes) in the last 30 days?" Items are rated on a 4-point Likert scale (from never to daily). Current e-cigarette use is measured using the question, "On how many of the last 30 days have you used electronic cigarettes?" Items are rated on a 7-point Likert scale (from 0 to 30 days).

*UPPS-P Impulsive Behavior Scale* (Cándido et al., 2012; Lynam et al., 2006). This is a self-report instrument evaluating five impulsivity constructs (negative urgency, positive urgency, sensation seeking, premeditation, and perseverance). It consists of 20 items, which are rated on a 4-point Likert scale, with higher scores indicating less impulsive behavior.

*EFE Evaluación Familiar Estratégica (Strategic Family Evaluation)* (Morell-Gomis et al., 2011): This is a self-report instrument assessing five constructs (communication, social support, conflict, rules and consequences) about family dynamics. Items are rated on a 5-point Likert scale (1 = "never"; 5 = "always"). Although the original instrument measures these variables for each family member, for the purpose of this study, we asked about family conflict in general.

## Procedure

The study was approved by the Ethical Research Committee of Aragón (CEICA) and Research Ethics Committee (CEID) of Valencian International University (Spain) complied with the ethical standards established in the Spanish Data Protection and Guarantee of Digital Rights Law 3/2018. Parents were informed of the voluntary nature of the students' participation and the confidentiality of the data. The estimated duration was 30 to 40 min, being held in the regular classroom during school hours, under the researcher's supervision.

## Analytical Strategy

Descriptive statistics and Pearson's correlations were conducted. Multiple mediation analyses were performed using the PROCESS macro for SPSS (Hayes & Little, 2018). Two multiple mediation models were tested in which family conflict was the independent variable ( $X$ ), impulsivity-related constructs were the potential mediators ( $M$ s), and CC use (yes vs. no) and EC use (yes vs. no) in the last 30 days were the dependent variables ( $Y$ ). Predictor and mediator variables were introduced into the model as continuous, based on the scores from the questionnaires described above. Gender and age were included as covariates in these analyses. Bias-corrected bootstrapping (with 20,000 resamples) was used to generate confidence intervals for the hypotheses tested as it is the preferred method for assessing indirect effects (Preacher & Hayes, 2008), which represent the effect of  $X$  on  $Y$  through  $M$ . Indirect effects estimate the difference in  $Y$  between two cases that differ by one unit on  $X$  through the joint effect of  $X$  on  $M$ , which, in turn, influences  $Y$  (Hayes & Rockwood, 2020). In this approach, effects are considered significant if the upper and lower bound of the bias-corrected 95% confidence intervals (95% CI) do not contain zero (Preacher & Kelley, 2011). The direct effects represent the relationship between  $X$  and  $Y$  not attributable to the mechanism through  $M$ . Results are presented as unstandardized coefficients for continuous variables and as log-odds for the dichotomous outcome variables.

Due to the use of cross-sectional data, reverse models were conducted for each outcome variable to evaluate the hypothesized models' specificity (Preacher & Hayes, 2008). More specifically, models were tested reversing each proposed mediator and predictor variable.

## Results

A third of the sample (33.0%) reported having smoked CC at some time during their lives, while a fifth (20.4%) reported having used EC. In terms of tobacco use in the previous 30 days, 14.0% of the sample reported having used CC, while 10.9% reported having used EC. Descriptive statistics and Pearson's correlations of the study variables are presented in Table 1. Family conflict was positively correlated with the two outcome variables (CC and EC use). In terms of correlations with the proposed mediating variables (impulsivity variables), family conflict positively correlated with positive urgency, negative urgency, and sensation seeking, and negatively correlated with perseverance and premeditation. All impulsivity variables correlated significantly with CC and EC use except for premeditation and EC use.



**Table 1** Descriptive statistics and bivariate correlations ( $N=879$ )

	Mean ( <i>SD</i> ) % ( <i>n</i> )	1	2	3	4	5	6	7	8	9
1. Age	14.25 (1.88)	-								
2. Sex (male)	56.4 (496)	-0.01	-							
3. Family conflict	9.37 (3.14)	0.18***	-0.03	-						
4. Negative urgency	10.14 (2.95)	0.06	0.02	0.23***	-					
5. Positive urgency	10.25 (2.65)	0.04	0.06	0.19***	0.53***	-				
6. Sensation seeking	10.85 (2.84)	0.06	0.10**	0.13***	0.30***	0.50***	-			
7. Premeditation	12.18 (2.50)	-0.10**	0.04	-0.22***	-0.10**	0.03	0.04	-		
8. Perseverance	12.40 (2.66)	-0.18***	-0.02	-0.22***	-0.08*	0.06	0.11**	0.63***	-	
9. CC use (last 30 days)	14 (123)	0.29***	-0.01	0.13***	0.11**	0.07*	0.11**	-0.17***	-0.14***	-
10. EC use (last 30 days)	10.9 (96)	0.10**	0.07*	0.10**	0.10**	0.11**	0.15***	-0.06	-0.08*	0.26***

Note. CC, conventional cigarette; EC, electronic cigarette. \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$

## Multiple Mediation Analyses

Both mediation models showed that the direct effect of family conflict (path  $c'$ ) on CC and EC use was not significant. When examining the indirect effect of family conflict on CC use via impulsivity variables (Table 2), the total indirect effect was significant ( $a*b=0.063$ , 95% CI [0.037, 0.095]). With respect to specific pathways, the indirect effect was significant through sensation seeking ( $a*b=0.013$ , 95% CI [0.002, 0.028]) and through premeditation ( $a*b=0.029$ , 95% CI [0.011, 0.050]). With regard to the indirect effect of family conflict on EC use via impulsivity variables (Table 3), the total indirect effect was also significant ( $a*b=0.059$ , 95% CI [0.021, 0.091]). In terms of specific pathways, the only indirect effect that was significant was through sensation seeking ( $a*b=0.018$ , 95% CI [0.006, 0.034]).

## Reverse Mediation Analysis

All of the results of the reverse models were non-significant. For CC use: negative urgency ( $a*b=0.005$ , 95% CI [-0.005, 0.016]), positive urgency ( $a*b=0.004$ , 95% CI [-0.005, 0.016]), sensation seeking ( $a*b=0.002$ , 95% CI [-0.003, 0.007]), premeditation ( $a*b=-0.005$ , 95% CI [-0.019, 0.006]), and perseverance ( $a*b=-0.004$ , 95%

**Table 2** Multiple mediational analysis results controlled by covariates for CC use ( $N=879$ )

Direct	<i>b</i>	SE <sup>a</sup>	<i>p</i>	LLCI <sup>b</sup>	ULCI <sup>c</sup>
Family conflict → negative urgency ( $a_1$ )	<b>0.21</b>	<b>0.03</b>	< <b>0.001</b>	<b>0.15</b>	<b>0.28</b>
Family conflict → positive urgency ( $a_2$ )	<b>0.16</b>	<b>0.03</b>	< <b>0.001</b>	<b>0.11</b>	<b>0.22</b>
Family conflict → sensation seeking ( $a_3$ )	<b>0.11</b>	<b>0.03</b>	< <b>0.001</b>	<b>0.05</b>	<b>0.17</b>
Family conflict → premeditation ( $a_4$ )	<b>-0.17</b>	<b>0.03</b>	< <b>0.001</b>	<b>-0.22</b>	<b>-0.12</b>
Family conflict → perseverance ( $a_5$ )	<b>-0.16</b>	<b>0.03</b>	< <b>0.001</b>	<b>-0.22</b>	<b>-0.11</b>
Negative urgency → CC use ( $b_1$ )	0.08	0.04	0.086	-0.01	0.16
Positive urgency → CC use ( $b_2$ )	-0.01	0.05	0.802	-0.12	0.09
Sensation seeking → CC use ( $b_3$ )	<b>0.12</b>	<b>0.05</b>	<b>0.007</b>	<b>0.03</b>	<b>0.21</b>
Premeditation → CC use ( $b_4$ )	<b>-0.17</b>	<b>0.05</b>	< <b>0.001</b>	<b>-0.28</b>	<b>0.07</b>
Perseverance → CC use ( $b_5$ )	-0.05	0.05	0.384	-0.15	0.06
Family conflict → CC use ( $c'$ )	0.03	0.03	0.324	-0.03	0.10
Indirect	<i>b</i>	SE <sup>a</sup>		BooLLCI <sup>d</sup>	BooULCI <sup>e</sup>
Total indirect effect	<b>0.06</b>	<b>0.02</b>		<b>0.04</b>	<b>0.10</b>
Family conflict → negative urgency → CC use	0.02	0.01		-0.00	0.04
Family conflict → positive urgency → CC use	-0.00	0.01		-0.02	0.02
Family conflict → sensation seeking → CC use	<b>0.01</b>	<b>0.01</b>		<b>0.00</b>	<b>0.03</b>
Family conflict → premeditation → CC use	<b>0.03</b>	<b>0.01</b>		<b>0.01</b>	<b>0.05</b>
Family conflict → perseverance → CC use	0.01	0.01		-0.00	0.03

*Note.* CC, conventional cigarette; EC, electronic cigarette. The *b* estimates for pathways where CC (dichotomous) is the outcome variable reflects the increase or decrease in the predicted log odds of smoking that would be predicted by a 1 unit increase or decrease in family conflict while holding all other predictors constant

<sup>a</sup>Standard error; <sup>b</sup>lower limit confidence interval; <sup>c</sup>upper limit confidence interval; <sup>d</sup>bootstrap lower limit confidence interval; <sup>e</sup>bootstrap upper limit confidence interval

**Table 3** Multiple mediational analysis results controlled by covariates for EC use ( $N=879$ )

Direct	<i>b</i>	SE <sup>a</sup>	<i>p</i>	LLCI <sup>b</sup>	ULCI <sup>c</sup>
Family conflict→negative urgency ( $a_1$ )	<b>0.21</b>	<b>0.03</b>	<b>&lt;0.001</b>	<b>0.15</b>	<b>0.28</b>
Family conflict→positive urgency ( $a_2$ )	<b>0.16</b>	<b>0.03</b>	<b>&lt;0.001</b>	<b>0.11</b>	<b>0.22</b>
Family conflict→sensation seeking ( $a_3$ )	<b>0.11</b>	<b>0.03</b>	<b>&lt;0.001</b>	<b>0.05</b>	<b>0.17</b>
Family conflict→premeditation ( $a_4$ )	<b>-0.17</b>	<b>0.03</b>	<b>&lt;0.001</b>	<b>-0.22</b>	<b>-0.12</b>
Family conflict→perseverance ( $a_5$ )	<b>-0.16</b>	<b>0.03</b>	<b>&lt;0.001</b>	<b>-0.22</b>	<b>-0.11</b>
Negative urgency→EC use ( $b_1$ )	0.05	0.05	0.322	-0.04	0.14
Positive urgency→EC use ( $b_2$ )	0.03	0.06	0.584	-0.08	0.14
Sensation seeking→EC use ( $b_3$ )	<b>0.16</b>	<b>0.02</b>	<b>&lt;0.001</b>	<b>0.07</b>	<b>0.26</b>
Premeditation→EC use ( $b_4$ )	-0.03	0.06	0.653	-0.13	0.08
Perseverance→EC use ( $b_5$ )	-0.10	0.05	0.079	-0.20	0.01
Family conflict→EC use ( $c'$ )	0.04	0.04	0.289	-0.03	0.10
Indirect	<i>b</i>	SE <sup>a</sup>	BooLLCI <sup>d</sup>	BooULCI <sup>e</sup>	
Total indirect effect	<b>0.05</b>	<b>0.02</b>	<b>0.02</b>	<b>0.09</b>	
Family conflict→negative urgency→EC use	0.01	0.01	-0.01	0.03	
Family conflict→positive urgency→EC use	0.01	0.01	-0.01	0.02	
Family conflict→sensation seeking→EC use	<b>0.02</b>	<b>0.01</b>	<b>0.01</b>	<b>0.03</b>	
Family conflict→premeditation→EC use	0.00	0.01	-0.01	0.02	
Family conflict→perseverance→EC use	0.02	0.01	-0.00	0.04	

Note. CC, conventional cigarette; EC, electronic cigarette. The *b* estimates for pathways where EC (dichotomous) is the outcome variable reflects the increase or decrease in the predicted log odds of smoking that would be predicted by a 1 unit increase or decrease in family conflict while holding all other predictors constant

<sup>a</sup>Standard error; <sup>b</sup>lower limit confidence interval; <sup>c</sup>upper limit confidence interval; <sup>d</sup>bootstrap lower limit confidence interval; <sup>e</sup>bootstrap upper limit confidence interval

CI [-0.017, 0.005]). For EC use: negative urgency ( $a*b=0.005$ , 95% CI [-0.006, 0.017]), positive urgency ( $a*b=0.005$ , 95% CI [-0.006, 0.017]), sensation seeking ( $a*b=0.002$ , 95% CI [-0.003, 0.009]), premeditation ( $a*b=-0.006$ , 95% CI [-0.020, 0.007]), and perseverance ( $a*b=-0.005$ , 95% CI [-0.019, 0.006]).

## Discussion

To our knowledge, this is the first study examining the role of impulsivity constructs in the relationship between family conflict and CC and EC use in adolescents. Our findings showed that family conflict was not directly related to CC and EC use, but that there was a significant positive indirect effect of family conflict through some specific impulsivity constructs. More specifically, sensation seeking was found as a significant positive mediator between family conflict and both tobacco use outcomes (CC and EC current use). These findings are in line with previous studies, such as Trujillo et al. (2016), who found that sensation seeking mediated between family conflict and current alcohol and

marijuana use. Family conflict has an impact on how adolescents cope with distress and unpleasant emotions, with drug use as an emotional regulation strategy (Trujillo et al., 2016). In this regard, sensation seeking—one of the most widely studied impulsivity variables in relation to substance use—has consistently been found to be positively associated with tobacco use (Doran & Tully, 2018; Kelly et al., 2019; Peterson & Smith, 2017). However, our findings differ from studies such as Case et al. (2017), who found a relationship between sensation seeking and starting to use EC but not with current EC use. This discrepancy may be for a number of reasons, such as the use of different questionnaires, the studies having been done in different countries in which patterns of EC use may be different (USA vs. Spain), or because the current study examined sensation seeking as a mediator variable. More research is needed to clarify how sensation seeking is associated with the use of different tobacco products.

Our results also showed that family conflict had a significant positive indirect effect on CC use through lower premeditation. This finding is in line with previous studies which found that a lack of premeditation was strongly associated with smoking in young people (Ozga-Hess et al., 2020) and in the general population (Kale et al., 2018). In fact, a lack of premeditation, understood as not thinking about potential consequences before acting, has also been found to be associated with early and later substance use (Lynam & Miller, 2004).

The findings of the current study highlight how important adolescents' social contexts and family interactions are when it comes to tobacco use (Al-Halabí Díaz et al., 2009; Luk et al., 2018; Thomas et al., 2016). The main finding of this study suggests that adolescents who live in families where conflicts are frequent are more likely to use CC and EC through higher sensation seeking and lower premeditation.

Our results also show that impulsivity-related variables have differing impacts on tobacco use. More specifically, our data shows that only sensation seeking and premeditation act as mediation variables between family conflict and current CC and CE use. This is in contrast to the meta-analysis by Bos et al. (2019), in which all of the UPPS-P model traits were associated with CC use. However, those differences may be due to the definition of tobacco use. It should be noted that a recent study has shown a reverse mediation relationship between the variables examined in our study. Wang et al. (2021) found that family conflict has a mediating role between impulsivity and CC use. They explained that adolescents' impulsive behavior can produce stress in the family due to conflict and it can lead to drug use. In our study, reverse mediation analysis yielded non-significant results. However, bidirectionality may exist and should be examined in longitudinal studies. Regardless of what produces the conflict in the family, it is important to study how this variable impacts substance use. As mentioned above, our results did not show a direct effect of family conflict on tobacco use, but rather an indirect effect through sensation seeking and premeditation. As Wang et al. (2021) pointed out, adolescents who experience family conflict may use substances as a way of escaping from that situation. Therefore, considering the literature and the results of our study, the tendency to behave impulsively could be considered a learned coping mechanism for some adolescents for dealing with the discomfort produced by family conflict.

These findings have several clinical implications in terms of prevention and treatment of tobacco use in adolescents. Firstly, when designing prevention and intervention strategies, the differential role of specific impulsivity constructs (Strickland & Johnson, 2020) should be considered, along with training in alternative, healthier coping strategies. Therefore, the inclusion of family and impulsivity-related components in school-based substance use prevention programs (Velasco et al., 2017; Vigna-Taglianti et al., 2014; Villanueva et al.,



2021) may improve their effectiveness on tobacco use and even indirectly on cannabis use due to this substance is usually consumed with tobacco (EMCDDA, 2019). Secondly, the previous literature shows that parents who attend prevention programs tend to have a low risk profile, with low participation of high-risk families (Al-Halabí Díaz & Errasti Pérez, 2009; Errasti Pérez et al., 2008). More effort is needed in active recruitment and intervention with families through selective and indicated prevention (Van Ryzin et al., 2016).

In addition, any reductions in the aforementioned risk factors need to be accompanied by legislative measures to prevent minors from accessing tobacco products. Nicotine affects neurocognitive development (Smith et al., 2015), and once somebody starts using conventional tobacco products, the probability of them using e-cigarettes increases, and vice versa (Hittner et al., 2020).

The current study has some limitations. First, due to the cross-sectional nature of our data, casual and temporal interpretations could not be established. Future research should examine longitudinal associations between family conflict, impulsivity traits, and CC and EC use. Second, the study sample is exclusively from Spain, so the results cannot be generalized to adolescents from other cultural backgrounds. In addition, it would be interesting to examine other variables that might also be associated with CC and EC use. For instance, it would be necessary to study whether sex differences regarding the impact of family and personality variables on CC and EC use exist. Moreover, social and economic variables should be examined or included as covariates in future studies since they constitute an important predictor of smoking among adolescents (Polanska et al., 2022). For instance, family income or socioeconomic status could be related to school choice, which could be impacting our findings. Finally, the study measures were self-report instruments, and although the effectiveness of this assessment method has been demonstrated, it may be affected by response bias and social desirability (Krumpal, 2013).

## Conclusions

This study extends previous literature by showing that family conflict is associated with current CC and EC use through specific impulsive traits. More specifically, our findings indicate that, in adolescence, family conflict is associated with current CC and EC use through sensation seeking, and in the case of current CC use, premeditation also has an important role as a mediator variable.

**Funding** Study funded by Valencian International University (PII2021\_02).

## Declarations

**Conflict of Interest** The authors declare no competing interests.

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## Artículo 2. Family Conflict and Suicidal Behaviour in Adolescence: The Mediating Role of the Assertive Interpersonal Schema

Eslava, D., Martínez-Vispo, C., Villanueva-Blasco, V. J., Errasti, J. M., y Al-Halabí, S. (2023). Family Conflict and Suicidal Behaviour in Adolescence: The Mediating Role of the Assertive Interpersonal Schema. *Sustainability*, 15(6), 5149.



<https://doi.org/10.3390/su15065149>

JCR: FACTOR DE IMPACTO 2022 = 3.9. Cuartil: Environmental Sciences (Q2).

### Resumen

*Introducción:* La conducta suicida en la adolescencia es un problema de relevancia en todo el mundo. La familia desempeña un papel importante en este fenómeno, asociándose los conflictos familiares a una mayor probabilidad de ideación suicida e intentos de suicidio. Se ha sugerido que la relación entre estas dos variables pueda estar mediada por cómo se maneja la información social. El esquema interpersonal asertivo, que ayuda a entender el conflicto como una experiencia manejable, puede ser una variable relevante. El objetivo de este estudio fue examinar los efectos directos e indirectos del conflicto familiar en la conducta suicida a través del esquema interpersonal asertivo en una muestra de adolescentes. *Método:* La muestra estaba compuesta por 229 participantes (52,8% varones,  $M(SD)$ edad = 15,76 años (1,24)).




*Resultados:* Un 29,7% de los participantes declararon tener ideación suicida, y un 4,8% indicaron haber tenido intentos de suicidio en las dos semanas anteriores. El conflicto familiar se relacionó positivamente con la ideación suicida y los intentos de suicidio. Un análisis de mediación múltiple mostró que ambos efectos eran estadísticamente

significativos en todas las variables dependientes, con el esquema interpersonal asertivo explicaba gran parte del efecto del conflicto familiar, especialmente en el caso de la ideación suicida. *Conclusiones:* Estos hallazgos tienen implicaciones para la prevención y el tratamiento de este problema en adolescentes.

*Palabras clave:* Conducta suicida, ideación suicida, intentos de suicidio, conflicto familiar, asertividad, adolescencia.

Article

# Family Conflict and Suicidal Behaviour in Adolescence: The Mediating Role of the Assertive Interpersonal Schema

Dalila Eslava <sup>1</sup>, Carmela Martínez-Vispo <sup>2</sup>, Víctor J. Villanueva-Blasco <sup>3,\*</sup>, José M. Errasti <sup>1</sup> and Susana Al-Halabí <sup>1</sup>

<sup>1</sup> Department of Psychology, University of Oviedo, 33003 Oviedo, Spain

<sup>2</sup> Smoking and Addictive Disorders Unit, Department of Clinical Psychology and Psychobiology, University of Santiago de Compostela, 15782 Santiago de Compostela, Spain

<sup>3</sup> Faculty of Health Sciences, Valencian International University, 46002 Valencia, Spain

\* Correspondence: [vjvillanueva@universidadviu.com](mailto:vjvillanueva@universidadviu.com); Tel.: +34-961-924-993

**Abstract:** Suicidal behaviour in adolescents is a significant problem worldwide. Family plays an important role in this issue, with family conflict associated with a greater likelihood of current suicidal ideation and suicide attempts. It has been suggested that the relationship between these two variables may be mediated by how social information is handled. The assertive interpersonal schema, which helps to understand conflict as a normal experience, may be a relevant variable. The aim of this study was to examine the direct and indirect effects of family conflict on suicidal behaviour through the assertive interpersonal schema in an adolescent sample. The sample comprised 229 participants (52.8% boys,  $M(SD)$ age = 15.76 years (1.24)). A total of 29.7% of the participants reported suicidal ideation, and 4.8% indicated having attempted suicide in the previous two weeks. Family conflict was positively related to suicidal ideation and suicide attempts. A multiple mediation analysis showed that both effects were significant in all the dependent variables, with the assertive interpersonal schema explaining a large part of the effect of family conflict, particularly for suicidal ideation. These findings have implications for the prevention and treatment of this problem in adolescents.

**Keywords:** suicidal behaviour; suicidal ideation; suicide attempts; family conflict; assertiveness; adolescence



**Citation:** Eslava, D.; Martínez-Vispo, C.; Villanueva-Blasco, V.J.; Errasti, J.M.; Al-Halabí, S. Family Conflict and Suicidal Behaviour in Adolescence: The Mediating Role of the Assertive Interpersonal Schema. *Sustainability* **2023**, *15*, 5149. <https://doi.org/10.3390/su15065149>

Academic Editor: Andreas Ihle

Received: 10 January 2023

Revised: 28 February 2023

Accepted: 10 March 2023

Published: 14 March 2023



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## 1. Introduction

Suicide is a significant issue in public health policies worldwide [1]. It is a phenomenon that is influenced by biological factors, psychological variables, and contextual factors [2,3]. Each death by suicide has a direct and indirect impact on family, friends, and the community [4]. Research has shown that adolescence is a vulnerable period for suicide ideation and behaviour [5] due to the development-related challenges it presents [6]. In fact, previous studies have found that suicide-related thoughts tend to begin at this stage [7] and recent data have shown that suicide is the second most common cause of non-natural death among adolescents aged 15 to 19 in Spain [8] and worldwide [1].

Suicidal behaviour is a complex, multidimensional, multifactorial, fundamentally psychological phenomenon, characterized by the presence of suffering and intolerable psychological pain in which a person decides to end their life under certain circumstances (feeling no longer able to cope with suffering, that their suffering is interminable, or they are without a future or hopeless). It includes a variety of manifestations, including ideation and planning, suicidal communication, suicidal attempts, and completed suicide [9,10]. Recent research has conceptualized suicidal behaviour through the ideation-to-action framework, showing that factors related to suicide ideation are different from those related to suicide attempts [11,12]. Following this approach, suicidal behaviour should not be understood as equivalent to death by suicide. The different phenotypic manifestations of the behaviour are on a continuum of severity, in which the risk will be higher for a person who is closer to the suicide end of it [13]. Although it may seem to follow a linear trajectory, there are

non-linear, discontinuous changes over time and in fact suicidal behaviours can appear suddenly without prior suicidal planning [14]. Human behaviour does not conform well to the linear and unilateral [15]. There is still no consensus on its conceptual definition and taxonomy, which has an impact on, among other things, the understanding, assessment, and prevention of as well as interventions for suicidal behaviour [16–18]. Recent data show that about 30% of Spanish adolescents present suicidal ideation, and 4% have suicide attempted suicide [19,20]. Multiple studies have examined this issue [5,21]; however, it remains a silent problem in society [3].

Understanding suicidal behaviour in adolescence requires us to consider the quality of parent–child relationships [22]. Family conflict is one of the most widely studied topics [23] since it is associated with a higher likelihood of suicidal ideation [24] and has been found to be one of the most consistent, robust factors related to suicidality and other behavioural problems during adolescence [25,26]. Similarly, the family component is an essential aspect in managing this problem in the adolescent population [10,15,27], being a key element in evidence-based interventions, such as dialectical behaviour therapy [28], and also having a crucial role in implementing suicide-prevention strategies outside of treatment [29].

For many adolescents, conflict in the family may overwhelm their coping mechanisms, making those with poorer coping skills particularly vulnerable [21]. Moreover, a negative interpretation of these conflicts, in which there is a pessimistic view of the course of family events, may influence an adolescent's well-being and distress reactions during disputes [30,31], which is associated with suicidal behaviour [32]. One important variable associated with healthy social relationships is assertiveness, defined as the ability to express one's opinions and needs, while respecting the opinions and needs of others [33]. Assertiveness is associated with cognitive interpretations of the social world, including one's views of oneself and others and the interactions between the two [34]. These cognitive interpretations are interpersonal schemas, defined as beliefs associated with interpersonal events and relationships. In this vein, the rigidity of schemas and limited responses are related to interpersonal problems [35] and interpersonal misperceptions [36], constituting a risk factor for psychological distress [37]. In contrast, the assertive interpersonal schema is one's ability to understand interpersonal conflicts as normal and manageable [38]. The assertive interpersonal schema has been studied in relation to other adolescent problems, such as violence in teen dating [39]; however, no studies have specifically examined this variable in relation to suicidal behaviour. The influence of the cognitive aspect of assertiveness could be important because the interpretation of social interactions has a relevant role in adolescents' psychosocial adjustment [40,41].

Previous studies have examined possible mediating variables in the relationship between family conflict and suicidal behaviour. For instance, a study [42] found that family conflict was associated with a higher suicide risk and that depressive symptomatology mediated this relationship in a residential sample of adolescents and young adults. In addition, a recent study [22] suggested that variables, such as impulsivity, behavioural patterns, and social information processing, mediate the relationship between family conflict and suicidal ideation and attempts. However, despite the existing research highlighting the importance of studying the mediating variables between family conflict and suicide-related variables, to our knowledge, no studies have explored the role of the assertive interpersonal schema in this relationship. Considering that adolescence is a vulnerable stage for behavioural problems [43], such as suicidal behaviour [44], and that adolescence is a period in which the assertive interpersonal schema and interpersonal skills are developed [38], examining this question could provide important information with implications for suicide prevention and interventions.

The main aim of the present study was to examine the direct and indirect effects of family conflict on suicidal ideation, suicide attempts, and the total suicidal behaviour score (Paykel Suicide Scale) through the assertive interpersonal schema in a sample of adolescents between 14 and 18 years old.

## 2. Materials and Methods

This is a cross-sectional study, and the STROBE checklist can be found in the Supplementary Materials.

### 2.1. Participants

The target population was 232 Spanish adolescents from a secondary school in the east of Spain selected by convenience sampling. Inclusion criteria for participating in the study were as follows: (1) the participant could provide a parent's or legal guardian's written informed consent; and (2) the participant was willing to participate. Most of the target population agreed to participate (98.71%) and the final study sample comprised 229 participants (52.8% boys; Mage = 15.76 years; SD = 1.24; range = 14–17). Data were collected during 2019–2020 academic year.

### 2.2. Instruments

An ad hoc questionnaire in Spanish was administered to collect sociodemographic information (age, sex, ethnicity, school year). The following instruments were used to collect specific data:

#### 2.2.1. Paykel Suicide Scale (PSS)

Suicidal behaviour was measured using the PSS [20,45]. This is a suitable instrument for screening for this issue in the adolescent population in educational contexts [20]. It consists of five yes-or-no questions about the previous two weeks. Items 1 and 2 refer to thoughts about death, items 3 and 4 are about suicidal thoughts, and item 5 refers to suicide attempts. For the present study, we considered suicidal ideation to be the sum total of items 1 to 4, suicide attempts to be item 5, and suicidal behaviour to be the total score. The Spanish adaptation of the PSS has demonstrated adequate psychometric properties [20]. In this sample, the Cronbach's alpha was 0.66.

#### 2.2.2. Strategic Family Evaluation (EFE)

The EFE [46] is a self-reported instrument assessing five constructs about family dynamics (communication, social support, conflict, rules, and consequences). Items are rated on a five-point Likert scale (1 = never; 5 = always). The original instrument assesses these variables for each family member; however, in the present study, we asked about family conflict in general. The Spanish version of the EFE was used in the present study [46]. In this sample, the Cronbach's alpha for family conflict was 0.86.

#### 2.2.3. Assertive Interpersonal Schema Questionnaire (AISQ)

The AISQ [38] is a self-reported instrument assessing five constructs about cognition in assertiveness (outer emotional support, functional personal ability, interpersonal management, and affective personal ability). Items are rated on a five-point Likert scale (1 = not at all like me; 5 = completely like me). The answers of each construct are added together for the total score [38]. The AISQ has demonstrated adequate psychometric properties [38]. In this sample, the Cronbach's alpha was 0.90.

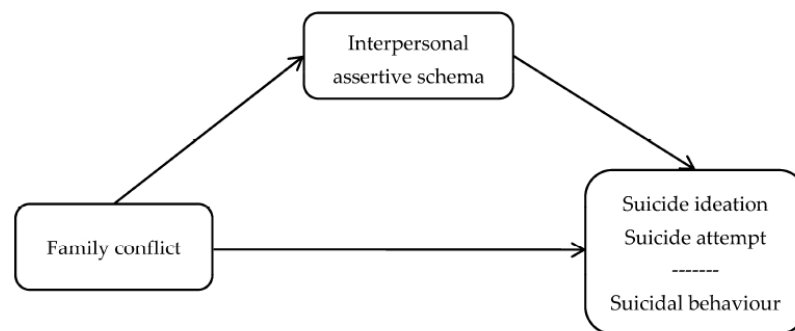
### 2.3. Procedure

The study was approved by the Ethical Research Committee of Aragon (Spain) and the Research Ethics Committee of Valencian International University (Spain). The study was conducted in accordance with the Declaration of Helsinki and complied with the ethical standards established in current Spanish data protection and digital rights legislation. Parents or legal guardians signed the informed consent form after being told about the voluntary nature of the students' participation in the study. The questionnaires were completed in the students' regular classroom (taking approximately 30–40 min) under the researcher's supervision.



#### 2.4. Analytic Strategy

Preliminary analyses included descriptive statistics of the study variables and Pearson correlations. Simple mediation analyses were performed using Model 4 of the PROCESS macro, which is an interface applied to SPSS to conduct ordinary least squares (OLS) and logistic regression path analysis modelling [47]. Three models were tested; family conflict was the independent variable (X), the assertive interpersonal schema was the mediator (M), and suicidal ideation (composite score of items 1 to 4 on the PSS), suicide attempts (yes vs. no on PSS item 5), and suicidal behaviour (PSS total score) were the dependent variables (Y) (see Figure 1). Age and sex were not included as covariates in the mediation models due to the lack of significant relationships to the study variables in bivariate analysis.



**Figure 1.** Illustration of the mediational model for suicidal behaviour.

To generate confidence intervals for assessing indirect effects, we used bias-corrected bootstrapping (with 20,000 resamples) [48]. The formula  $\frac{a * b}{a * b + c}$  was used to estimate the magnitude of the mediating effect. Indirect effects are considered significant if the upper and lower bounds of the bias-corrected 95% confidence intervals (95% CI) do not contain zero [49]. The direct effects represent the relationship between X and Y not attributable to M.

Due to the cross-sectional nature of the data, which prevented the establishment of causal relationships, reverse models were also conducted for each outcome variable to evaluate the hypothesized models' specificity [48].

### 3. Results

Descriptive statistics, including the means, standard deviations, skewness, kurtosis, and Pearson correlations of the study variables, are presented in Tables 1 and 2, respectively. When examining the normality of the data distribution by skewness and kurtosis, none of the variables were outside the acceptable ranges (skewness < 3 and kurtosis < 10) [50].

**Table 1.** Descriptive statistics of study variables ( $n = 229$ ).

	% (n)/M (SD)	Skewness	Kurtosis
Family conflict	9.61 (3.25)	1.252	1.149
AISQ—Total	86.50 (11.27)	−0.984	0.988
PSS—SI (range 0–4)	0.49 (0.89)	2.019	3.819
PSS—SA (yes)	4.80 (11)	–	–
PSS—SB (range 0–5)	0.54 (0.99)	2.299	5.744

Note. AISQ = Assertive Interpersonal Schema Questionnaire; PSS—SI = Suicidal Ideation; PSS—SA = Suicide Attempts; PSS—SB = Total Suicide Behaviour score.

Of the total sample, 31.4% ( $n = 72$ ) of the participants reported suicidal ideation and 4.80% ( $n = 11$ ) reported suicide attempts. Approximately a third of the sample reported some kind of suicidal behaviour (31.4%;  $n = 72$ ).

**Table 2.** Bivariate correlations among study variables ( $n = 229$ ).

	1	2	3	4	5	6
1. Age	-					
2. Sex	0.08	-				
3. Family conflict	0.09	-0.02	-			
4. AISQ—Total	-0.01	-0.07	-0.22 ***	-		
5. PSS—SI	-0.02	-0.12	0.21 **	-0.38 ***	-	
6. PSS—SA	0.03	-0.07	0.19 **	-0.23 ***	0.36 ***	-
7. PSS—SB	-0.01	-0.12	0.23 ***	-0.39 ***	0.54 ***	0.98 ***

Note. AISQ = Assertive Interpersonal Schema Questionnaire; PSS—SI = Suicidal Ideation; PSS—SA = Suicide Attempts; PSS—SB = Total Suicide Behaviour score. \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$

### 3.1. Mediation Analysis

The three mediation models showed a statistically significant direct effect of family conflict (path  $c'$ ) on suicidal ideation, suicide attempts, and suicidal behaviours. When examining the indirect effect of family conflict on suicidal ideation via the AISQ total scores (Table 3), the indirect effect was significant ( $a*b = 0.08$ , 95% CI (0.03, 0.14)). For the effect of family conflict on suicide attempts, the indirect effect was significant ( $a*b = 0.05$ , 95% CI (0.01, 0.11)). Finally, the indirect effect through the PSS total score was also significant ( $a*b = 0.08$ , 95% CI (0.02, 0.14)). Almost three-quarters (72.7%) of the association between family conflict and suicidal ideation was mediated by the assertive interpersonal schema, while 23.8% of the association between family conflict and suicide attempts was mediated by it. For the total score on the PSS, 66.6% of the relationship between the study variables was mediated by the assertive interpersonal schema.

**Table 3.** Simple mediational analysis results ( $n = 229$ ).

Suicidal Ideation					
Direct	b <sup>a</sup>	p	LLCI <sup>b</sup>	ULCI <sup>c</sup>	$\frac{a*b}{a*b+c'}$
Family conflict → AISQ (a1)	-0.22	<0.001	-1.21	-0.328	
AISQ → PSS-SI (b1)	-0.35	<0.001	-0.04	-0.02	
Family conflict → PSS—SI ( $c'$ )	0.03	0.042	0.01	0.06	
Indirect <sup>d</sup>	b		BooLLCI <sup>e</sup>	BooULCI <sup>f</sup>	
Family conflict → AISQ → PSS—SI	0.08		0.03	0.14	0.72
Suicide Attempts					
Direct	b <sup>a</sup>	p	LLCI <sup>b</sup>	ULCI <sup>c</sup>	$\frac{a*b}{a*b+c'}$
Family conflict → AISQ (a1)	-0.22	<0.001	-1.21	-0.328	
AISQ → PSS-SA (b1)	-0.06	<0.01	-0.11	-0.02	
Family conflict → PSS—SA ( $c'$ )	0.16	0.046	0.02	0.32	
Indirect <sup>d</sup>	B		BooLLCI <sup>e</sup>	BooULCI <sup>f</sup>	
Family conflict → AISQ → PSS—SA	0.05		0.01	0.11	0.23
Total Suicidal Behaviour					
Direct	b <sup>a</sup>	p	LLCI <sup>b</sup>	ULCI <sup>c</sup>	$\frac{a*b}{a*b+c'}$
Family conflict → AISQ (a1)	-0.22	<0.001	-1.21	-0.328	
AISQ → PSS—SB (b1)	-0.36	<0.001	-0.04	-0.02	
Family conflict → PSS—SB ( $c'$ )	0.04	0.018	0.01	0.08	
Indirect <sup>d</sup>	B		BooLLCI <sup>e</sup>	BooULCI <sup>f</sup>	
Family conflict → AISQ → PSS—SB	0.08		0.03	0.14	0.66

Note. The b estimates for pathways in which suicidal behaviour (dichotomous) is the outcome variable reflect the increase or decrease in log odds that would be predicted by a 1 unit increase or decrease in Family conflict with all other predictors being constant. AISQ = Assertive Interpersonal Schema Questionnaire; PSS—SI = Suicidal Ideation; PSS—SA = Suicide Attempts; PSS—SB = Total Suicide Behaviour score<sup>a</sup> Standardized coefficient; <sup>b</sup> Lower Limit Confidence Interval; <sup>c</sup> Upper Limit Confidence Interval; <sup>d</sup> Completely standardized indirect effect; <sup>e</sup> Bootstrap Lower Limit Confidence Interval; Bootstrap; <sup>f</sup> Upper Limit Confidence Interval.

### 3.2. Reverse Mediation Analysis

For suicidal ideation ( $a*b = 0.03$ , 95% CI  $(-0.07, 0.01)$ ), suicide attempts ( $a*b = -0.01$ , 95% CI  $(-0.02, 0.01)$ ), and the total suicide behaviour score ( $a*b = -0.03$ , 95% CI  $(-0.08, 0.01)$ ), the results of the reverse models were not significant.

## 4. Discussion

The aim of the present study was to examine the direct and indirect effects of family conflict on suicidal behaviour through the assertive interpersonal schema in a sample of adolescents. The results showed that family conflict was significantly related to suicidal ideation, suicide attempts, and the total suicidal behaviour score. This supports previous research showing that family conflict is a robust risk factor for suicidality [25,27]. Our results also showed an indirect effect of family conflict on suicidal ideation, attempts, and total suicidal behaviour score through the assertive interpersonal schema.

From the suicide-related data, we found that 29.7% of the participants reported suicidal ideation, and 4.8% indicated having attempted suicide in the previous two weeks. These findings are in line with those of previous studies with other samples of adolescents. For instance, a review examining data from 11 different countries reported suicidal ideation ranging between 10% and 35%, and attempts between 5% and 15% [51]. Our results are also consistent with previous studies in Spain that obtained similar data about suicidal ideation and attempts [18,20].

The mediation analysis data indicated a direct effect of family conflict on suicidal ideation. Other authors have found similar results, highlighting family conflict as one of the most stressful reported factors related to suicidal ideation [52,53]. The literature has established that specific stressors, such as family conflict, may trigger suicidal ideation, especially when a person presents vulnerabilities, such as personality traits or contextual variables [5,11]. Further research is warranted to examine other variables that could also be implied in this relationship. Our data also showed an indirect effect of family conflict on suicidal ideation via the assertive interpersonal scheme, explaining 72% of the relationship. One possible explanation of this finding is that the interpersonal assertiveness scheme is associated with the use of adaptative skills to better manage the distress produced by family conflict [54,55] and therefore influences suicidal ideation.

There were similar results for suicide attempts, since family conflict also had a direct effect on this variable. These results are consistent with those of the previous literature. For instance, a study [56] found that 5.41% of adolescents reported family conflict as a motive for attempting suicide. Along similar lines, a recent meta-analysis [21] showed that adolescents with a history of suicide attempts presented more parental-related stress than those without suicidal behaviour. Moreover, family conflict was also indirectly related to suicide attempts through the assertive interpersonal scheme, explaining 23% of the relationship. Therefore, family conflict is a relevant variable associated with suicide attempts [23]. However, future research should also consider other variables to understand the shift from ideation to action, such as exposure to others' suicidal behaviour or having a suicide plan [11].

The results were similar in terms of suicidal behaviour, which includes ideation and attempts: family conflict had a significant direct and indirect effect through the assertive interpersonal scheme, explaining 66% of this relationship. This finding supports the approach of the ideation-to-action framework, which proposes that the study of suicidal behaviour should consider suicide ideation and suicide attempts as different phenomena [57]. This has clinical implications in terms of prevention and treatment programs, highlighting the need to distinguish between ideation and action, and the need to tailor intervention components according to this information [58].

Several studies have highlighted the importance of considering the influence of family on suicidal behaviour in adolescents [22] as well as its influence on other problematic behaviours, such as alcohol [59], tobacco (traditional and electronic cigarettes) [60], and cannabis use [61]. Suicidal behaviour has also been associated with emerging problems, such as problematic internet use, in which the role of the family through parental control is



particularly important [62]. Our findings have clinical implications for preventing and treating suicidal behaviour. First, the results highlight the importance of family relationships to adolescent psychological well-being, in line with previous research showing that they can act as a protective factor or as a risk factor [63]. Furthermore, since family is considered one of the main educational agents promoting adolescent personal development [64], prevention and treatment programs should consider not only the involvement of family members but also training in conflict management skills. Second, our data showed that the assertive interpersonal schema plays a role in how family conflict has an impact on suicidal behaviour. Therefore, in line with Vagos and Pereira [38], who noted the importance of this scheme in improving social skills, it may be beneficial to include components addressing this scheme in the prevention of and interventions for suicidal behaviour in adolescents. Indeed, a recent review of programs for those at risk of suicide found that the most effective interventions included family and skills training as emotion regulation skills [65]. Future research is needed to test whether including such components improves treatment outcomes [66].

Our study does have some limitations. Firstly, it was a cross-sectional study, and causal and temporal associations cannot be established. However, to increase our confidence in the results of the study, we conducted reverse models which showed a non-significant indirect effect of the assertive interpersonal schema on suicidal ideation, attempts, and the total suicidal behaviour score through family conflict, adding credence to our proposed interpretation. Secondly, the sample available to us was not large. Talking about suicide remains complicated because it is a topic that is surrounded by stigma [9]. Third, suicidal behaviour was assessed through a self-reported instrument that, although frequently used for suicidal behaviour screening in adolescents [19], did not allow for a deeper examination of participants' despair, psychological pain, or other suicide-related aspects, such as passive ideation, active ideation, or suicide planning. Moreover, the self-reported nature of the instrument raises potential concerns about social desirability and response bias, which might be especially important during adolescence.

The current study also has its strengths. The phenomenon of suicide was analysed considering the emerging theories of intention-to-action, examining its components separately [11]. This is the first study considering the assertive interpersonal schema, yielding relevant results for suicidal behaviour prevention and intervention efforts.

## 5. Conclusions

The current study contributes to the literature highlighting the importance of family conflict in suicidal behaviour and introducing the assertive interpersonal schema as a factor to be considered. More specifically, our findings indicate that family conflict is positively related to suicidal ideation and suicide attempts, with the assertive interpersonal schema having an important role as a mediator variable. To our knowledge, our study is the first to consider this variable as a mediator, thus highlighting the relevance of this personal ability.

**Supplementary Materials:** The following supporting information can be downloaded at: <https://www.mdpi.com/article/10.3390/su15065149/s1>. Reporting checklist for cross sectional study.

**Author Contributions:** Conceptualization, S.A.-H., V.J.V.-B., D.E. and C.M.-V.; methodology, S.A.-H., V.J.V.-B., D.E. and C.M.-V.; software, C.M.-V.; validation, S.A.-H., V.J.V.-B. and C.M.-V.; formal analysis, C.M.-V.; investigation, D.E. and V.J.V.-B.; resources, V.J.V.-B. and D.E.; data curation, D.E. and C.M.-V.; writing—original draft preparation, D.E., C.M.-V. and V.J.V.-B.; writing—review and editing, S.A.-H. and J.M.E.; visualization, S.A.-H., V.J.V.-B., D.E. and C.M.-V.; supervision, S.A.-H. and V.J.V.-B.; project administration, S.A.-H. and V.J.V.-B. All authors have read and agreed to the published version of the manuscript.

**Funding:** This research received no external funding.

**Institutional Review Board Statement:** The study was conducted in accordance with the Declaration of Helsinki, and approved by the Ethical Research Committee of Aragon (Spain) and the Research Ethics Committee of Valencian International University (Spain).

**Informed Consent Statement:** Informed consent was obtained from all subjects involved in the study.

**Data Availability Statement:** The data presented in this study are available upon request from the corresponding author.

**Acknowledgments:** The authors wish to thank the secondary school centres and participants involved in this study.

**Conflicts of Interest:** The authors declare no conflict of interest.

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### Artículo 3. Dual alcohol and cannabis in male and female adolescents: relationships with family variables.

Eslava, D., Martínez-Vispo, C., Villanueva-Blasco, V. J., Errasti, J. M., y Al-Halabí, S. (2023). Dual alcohol and cannabis in male and female adolescents: relationships with family variables. *Addictive Behavior*, 146, 107798.

<https://doi.org/10.1016/j.addbeh.2023.107798>



JCR: FACTOR DE IMPACTO 2022 = 4.4. Quartil: Psychology, Clinical (Q1).

#### Resumen

*Introducción:* El consumo de alcohol en la adolescencia se relaciona con el consumo de otras sustancias, como el cannabis. En ambos consumos, las dinámicas familiares están relacionadas. El objetivo del presente estudio fue conocer la relación entre las variables familiares y el consumo de alcohol y de uso dual de alcohol y cannabis en comparación con el no consumo según el sexo. *Método:* La muestra estuvo compuesta por 879 adolescentes (56.4%, hombres;  $M(SD)$ age = 14.25 (1.88) años). *Resultados:* El análisis de regresión multinomial mostró que en los chicos la presencia de conflicto familiar aumenta la probabilidad de ser consumidor de alcohol (OR = 1.19) y de uso dual (OR = 1.23) frente a no ser consumidor. Por su parte, en las chicas la comunicación disminuye la probabilidad de ser consumidor de alcohol (OR = 0.88) frente a no ser consumidor y la presencia de consecuencias tras saltarse las normas disminuyó la probabilidad de ser consumidor dual frente a los no consumidores (OR = 0.83) y los consumidores de alcohol (OR = 0.84). *Conclusiones:* Estos hallazgos destacan la importancia de la prevención familiar del consumo de sustancias teniendo en cuenta el sexo de los participantes.

*Palabras clave:* Alcohol, cannabis, uso dual, variables familiares, adolescentes.



## Dual alcohol and cannabis use in male and female adolescents: Relationships with family variables

Dalila Eslava<sup>a</sup>, Carmela Martínez-Vispo<sup>b</sup>, Víctor José Villanueva-Blasco<sup>c,\*</sup>, José Manuel Errasti<sup>a</sup>, Susana Al-Halabí<sup>a</sup>

<sup>a</sup> Department of Psychology, Faculty of Psychology, University of Oviedo, Plaza de Feijoo, 33003 Oviedo, Spain

<sup>b</sup> Departament of Clinical Psychology and Psychobiology, Faculty of Psychology, University of Santiago de Compostela, Calle Xosé María Suárez Núñez, s/n, 15782 Santiago de Compostela, Spain

<sup>c</sup> Faculty of Health Sciences, Valencian International University, C. del Pintor Sorolla, 21, 46002 Valencia, Spain

### ARTICLE INFO

#### Keywords:

Alcohol  
Cannabis  
Dual use  
Family variables  
Adolescents

### ABSTRACT

Family dynamics influence adolescents' use of alcohol and other substances, such as cannabis. The aim of this study was to understand the relationship between family variables and alcohol use, dual use of alcohol and cannabis, and non-use in adolescents according to sex. A cross-sectional study was conducted. The sample comprised 879 adolescents (56.4 % boys; M(SD)age = 14.25 (1.88) years). Multinomial regression analysis showed that for boys, the presence of family conflict increased the likelihood of being an alcohol (OR = 1.19) and dual (OR = 1.23) user rather than a non-user. For girls, communication reduced the probability of being an alcohol user (OR = 0.88), and the presence of consequences for breaking rules reduced the probability of being a dual user rather than a non-user (OR = 0.83) or an alcohol user (OR = 0.84). These findings highlight the importance of family prevention of adolescents' substance use, bearing in mind the participants' sex.

### 1. Introduction

Substance use in adolescence is an important public health issue due to its negative consequences (World Health Organization, 2018). Alcohol use is particularly important at this age, not least because of its association with the early use of other substances such as cannabis (Stamates et al., 2021) and an increased likelihood of risky alcohol use in adulthood (Elsayed et al., 2018). The most recent prevalence data about substance use in Spain indicate that alcohol is the most-used legal substance in adolescence, while cannabis is the most-used illegal substance (Español, 2021). Previous studies have indicated that adolescence is a period in which experimentation and use of various substances is routine (Moss et al., 2014), with the dual use of alcohol and cannabis being common (Lees et al., 2021; Yurasek et al., 2017), especially by boys (Patrick et al., 2018; Subbaraman & Kerr, 2015; Thompson et al., 2021). In Spain, 75.2 % of adolescents with problematic cannabis use also reported having binged on alcohol during the previous month (Español, 2021).

The literature shows that dual alcohol and cannabis use is related to a higher frequency and quantity of use of the two substances than when

either is used alone (Patrick et al., 2018), increased likelihood of driving under the influence of drugs (Kelley-Baker et al., 2021), risky sexual behaviors (Green et al., 2017), mental disorders (Yurasek et al., 2017), and long term alcohol dependency (Wardell et al., 2020). In addition, Banks et al. (2019), found that adolescents who were polyconsumers of cannabis and other substances, including alcohol, demonstrated worse perceptual reasoning, more internalizing problems, and more complications related to substance use than those who only used cannabis.

Social factors have been shown to be relevant variables related to adolescent substance use, including siblings and family members. In this vein, Thomas et al. (2022) found that siblings exert an influence on each other's participation in risky behaviors, including alcohol and cannabis co-use. Similarly, the association between family variables and substance use in adolescence is well-established in the literature (Xia et al., 2019). Family conflict is one of the most widely-studied aspects (Best et al., 2014; Eslava et al., 2022), and high scores in this variable predict more prolonged, problematic alcohol and cannabis use (Best et al., 2014; Elam et al., 2018; Hernández-Serrano et al., 2021). Other family variables, such as parental support and communication, also significantly influence adolescents' development of healthy behaviors (Šumskaš &

\* Corresponding author at: Valencian International University, C/ Pintor Sorolla, 21, 46002 Valencia, Spain.  
E-mail address: [vjvillanueva@universidadviu.com](mailto:vjvillanueva@universidadviu.com) (V.J. Villanueva-Blasco).

<https://doi.org/10.1016/j.addbeh.2023.107798>

Received 12 April 2023; Received in revised form 27 June 2023; Accepted 1 July 2023

Available online 1 July 2023

0306-4603/© 2023 Published by Elsevier Ltd.



Zaborskis, 2017). Adolescents have been found to be at less risk of alcohol and cannabis use where they have more family support (Moore et al., 2018) and better communication between family members (Cambron et al., 2018; Moore et al., 2018; Ryan et al., 2010). Moreover, Zuckermann et al. (2020) indicated that family support reduced the risk of substance use.

Another family factor that has been examined in relation to drug use is the rules about substance use. Heerde et al. (2019) noted that when adolescents did not have rules about substance use or where the rules were not clear, the frequency of alcohol and cannabis use in the previous twelve months was higher. Hummer et al. (2022) found that adolescents who felt that their parents approved their alcohol and cannabis use demonstrated greater use of both substances in adulthood. Looking at the consequences of rule-breaking, Miller et al. (2017) found that expectations of being punished for cannabis use could be a protective factor, as the presence of such expectations was negatively related to use. However, Cox et al. (2018) found no significant results regarding the consequences of alcohol use, highlighting the importance of continuing to study this relationship given the scarcity of research. Despite that family variables have been extensively studied in substance use, the literature about the relationship between family variables and dual use of alcohol and cannabis in adolescence is scant. Brière et al. (2011) indicated that the use of these two substances in the previous twelve months was related to poor communication and the presence of conflict with parents, as well as with the absence of parental rules.

According to the literature, it seems that the prevalence of dual alcohol and cannabis use is greater in boys (Brière et al., 2011; Thompson et al., 2021), as is the probability of consuming various substances (Zuckermann et al., 2020), and developing use problems (Fernández-Artamendi et al., 2021). As far as we are aware, no studies have examined the association between family variables and dual alcohol and cannabis use by sex. This analysis may be interesting, as parents seem to encourage different behaviors in their sons and daughters (Naldini et al., 2018), and adolescents, depending on their sex, seem to have different interpretations of the family context (Guo et al., 2018). Furthermore, most studies about dual alcohol and cannabis use have used medium-term use data (previous 12 months). Using short-term measures of use (e.g., previous 30 days) would give more reliable findings about the relationship with family variables at the current time. In addition, existing studies have tended to limit themselves to exploring the dynamics with parents, without considering other members of the family who may also influence substance use (Howe et al., 2020). Additionally, in Europe, between 77.2 and 90.9 % of people that use cannabis mix this substance with tobacco (spliff), compared to 4.4–16.0 % of Americans (Hindocha et al., 2016). Although most of the literature examining cannabis focuses merely on that substance, it would be interesting to consider this phenomenon in European samples. For instance, in Spain, 86.4 % of boys and 89.2 % of girls between 14 and 18 that use cannabis mix this substance with tobacco (Español, 2021). To our knowledge, no studies have examined dual alcohol and cannabis use with this conceptualization which has been pointed as a relevant question when investigating cannabis use (Hernández-Serrano et al., 2021).

Based on the reviewed literature and the relevance of understanding the social and contextual variables involved in adolescent substance use in order to intervene in this problem, as highlight Zuckermann et al. (2020), this study aimed to examine the relationship between family variables and only alcohol use, dual use of cannabis and alcohol, or non-use according to sex in a sample of Spanish adolescents. Due to the scarcity of studies analyzing this question, the present research may offer novel and notable findings with implications for designing and tailoring preventive strategies.

## 2. Method

The study design was approved by the Ethical Research Committee of Aragon (Spain) and Research Ethics Committee of the Valencian

International University (Spain). The study was conducted in accordance with the Declaration of Helsinki and complied with the ethical standards established in the Spanish Data Protection and Guarantee of Digital Rights Law 3/2018.

This was a cross-sectional study; the STROBE checklist can be found in the [Supplementary material](#).

### 2.1. Participants

The target population was 912 Spanish adolescents from two secondary schools in the east of Spain selected by convenience sampling. The inclusion criteria for participating in the study were (1) providing parents' or legal guardian's written informed consent and (2) being willing to participate. Most of the target population agreed to participate (96 %). The final study sample consisted of 879 participants (56.4 % boys,  $Age = 14.25$ ;  $SD = 1.88$ , range = 11–19).

### 2.2. Measures

#### 2.2.1. Sociodemographics

An ad hoc questionnaire was administered to collect sociodemographic information (age, sex, ethnicity, school year).

**2.2.1.1. Alcohol and cannabis use.** The scales for alcohol and cannabis use were from the ESTUDES 2012 survey (Español, 2014). Alcohol use was measured using the question "How many days have you used alcohol in the last 30 days?". Cannabis use was measured using two questions, "Indicate if you have used cannabis and tobacco combined (spliff) in the last 30 days" and "Indicate if you have used cannabis (joint) in the last 30 days". Both questions were included since cannabis is frequently used mixed with tobacco in Spain.

#### 2.2.2. Family-related variables

The Evaluación Familiar Estratégica [Strategic Family Evaluation] (EFE) (Morell-Gomis et al., 2011) was used to measure family-related variables. This consists of a self-report instrument assessing five constructs about family dynamics (communication, social support, conflict, rules and consequences). It consists of 18 items, and they are rated on a five-point Likert scale (1 = never; 5 = always). The original instrument assesses each dimension for each family member. In the present study, only the adolescents filled out the questionnaire.

### 2.3. Procedure

Prior to the administration of the questionnaires, the school sent a letter to the students' legal guardians requesting their consent. The letter informed them of the voluntary nature of the children's participation and the confidentiality of the data by means of an alphanumeric code. We protocolized the administration of the instrument battery. At the beginning, we asked the students' teacher to confirm the guardians' authorizations. Next, we presented the study to the students, briefly explaining the research and requesting their collaboration. The questionnaires were completed in the students' regular classrooms during school hours (approximately 30–40 min), under the researcher's supervision.

### 2.4. Analytical strategy

First, descriptive statistics for the total sample were calculated as mean  $\pm$  standard deviation for continuous variables and as frequency (percentage) for categorical variables. Second, substance use and family-related variables according to sex were assessed using the chi-squared test and *t*-test. Then, a one-way analysis of variance (ANCOVA) was used to compare differences in continuous family-related variables by substance use, including sex and age as covariates. For this purpose,

three categories were created: non-use, only alcohol use, or both alcohol and cannabis use. A group for cannabis-only users was not created since only 1.2 % participants reported using cannabis and not alcohol. Bonferroni tests were used for multiple comparisons. Where the assumption of homogeneity of variances was violated, the Brown-Forsythe test and Games-Howell tests for multiple comparisons were used.

Finally, multinomial logistic regression analyses were conducted separately for male and female participants, including family-related variables as independent variables (Communication, Social Support, Conflict, Rules, Consequences), age as a covariate, and substance use as the dependent variable (three levels: non-use, only alcohol use, and both alcohol and cannabis use). Overall model fit ( $R^2$ ,  $\chi^2$ ) along with the unstandardized parameter (B), standard error, odds ratio (OR), and 95 % confidence interval (CI) were calculated for the models. To illustrate these results, ORs and Lower and Upper CI are represented with forest-plot graphs. A  $p$ -value of  $<0.05$  was considered statistically significant. Data analysis was done using IBM SPSS Statistics for Windows, Version 26.0 (IBM Corp., Armonk, New York, USA).

### 3. Results

#### 3.1. Demographics, substance use and differences according to sex

A little over half of the total sample (56.4 %) were male and 43.6 % were female. The ages of the sample ranged between 11 and 19 years ( $M = 14.25$ ;  $SD = 1.88$ ). Less than a quarter (23.9 %) of the male and 29.2 % of the female participants had used only alcohol during the previous 30 days (26.2 % of the total sample). Of the total sample, 10.1 % used cannabis in the last 30 days (10.7 % males and 9.4 % females). Regarding modality of use, 52.8 % only used cannabis mixed with tobacco (spliff) ( $n = 47$ ), 10.1 % only used cannabis joints ( $n = 9$ ), and 37.1 % ( $n = 33$ ) used both modalities (spliff and joint). When examining alcohol and cannabis use, 9.9 % of the male participants and 7.6 % of the female participants reported dual use during the previous 30 days (8.9 % of the total sample).

Non-significant differences were found in substance use according to sex (Table 1). However, in family-related variables, female participants

**Table 1**  
Differences in last-30 days substance use and family-related variables according to sex.

	Total sample ( $N = 868$ ) % ( $n$ )	Male ( $n = 492$ ) % ( $n$ )	Female ( $n = 376$ ) % ( $n$ )	$\chi^2$	$p$
Substance use				1.120	0.290
Non use	63.8 (561)	66.1 (325)	62.8 (236)		
Only alcohol use	26.1 (229)	24.0 (118)	29.5 (111)		
Alcohol and cannabis use	8.9 (78)	10.0 (49)	7.7 (29)		
	Mean (SD)	Mean (SD)	Mean (SD)	$t$	$p$
Communication	18.7 (4.16)	18.45 (4.17)	19.03 (4.15)	-2.070*	0.039
Social Support	17.29 (3.05)	17.06 (3.15)	17.58 (2.89)	-2.541*	0.011
Conflict	9.37 (3.14)	9.30 (3.25)	9.46 (2.99)	-0.757	0.449
Rules	6.7 (2.3)	6.57 (2.28)	6.86 (2.33)	-1.833	0.067
Consequences	10.86 (3.12)	10.73 (3.11)	11.03 (3.12)	-1.412	0.158

Note. Scale ranges: Communication (5–25), social support (4–20), conflict (4–20), rules (2–810) and consequences (3–15).

\* $p < 0.05$ .

reported significantly higher communication and social support scores.

#### 3.2. Differences in family-related variables according to substance use

Statistically significant differences were found in family-related variables between participants who had not used alcohol or cannabis and those who had (alcohol only, or both alcohol and cannabis) (Table 2). The *post-hoc* test showed that non-users' family communication, social support, rules, and consequences were significantly higher than those who had used alcohol or alcohol and cannabis during the previous 30 days (Table 3). These tests also showed that family conflict scores were significantly higher for those using alcohol or alcohol and cannabis than non-users.

#### 3.3. Multinomial regression analysis for family-related variables and substance use

Multinomial logistic regression analyses (adjusted by age) examining family-related variables and substance use during the previous 30 days are presented in Fig. 1, and Table 4 for male participants and in Table 5 for female participants. The results indicated that male participants with higher scores in family conflict had a higher probability of being alcohol users (OR = 1.19) or dual alcohol and cannabis users (OR = 1.23) than being non-users. Only non-significant associations were found between participants using alcohol and cannabis and alcohol-only users.

The results from female participants showed that higher scores in communication were associated with a decreased probability (OR = 0.88) of being an alcohol-only user compared to non-use (Table 5). Moreover, higher scores in consequences were associated with a lower probability of dual-use compared to non-use (OR = 0.83) or alcohol use (OR = 0.84).

### 4. Discussion

The aim of this study was to examine the relationship of family variables and dual alcohol and cannabis use in comparison to alcohol use alone and non-use according to participants' sex. Overall, the findings indicate that the family variables influenced the probability of adolescents' use of alcohol and dual use of alcohol and cannabis, albeit with some differences between the sexes and for each type of use. These findings not only broaden our understanding of alcohol use, but also contribute to the scant evidence available about dual alcohol and cannabis use considering sex differences.

We did not find any differences in the percentages of dual alcohol and cannabis use according to sex, in contrast to other studies which found that girls used alcohol more frequently (Kyrrestad et al., 2022)

**Table 2**  
Differences in family-related variables for non-use, only alcohol use, and alcohol and cannabis use for last-30 days use.

	Non use Mean (SD)	Only alcohol use Mean (SD)	Both alcohol and cannabis use Mean (SD)	$F$	$p$
Communication	19.22 (4.19)	17.96 (3.92) <sup>a</sup>	17.41 (4.06) <sup>a</sup>	12.611	<0.001
Social Support	17.65 (2.93)	16.87 (2.99) <sup>a</sup>	16.05 (3.55) <sup>a</sup>	10.980	<0.001
Conflict	8.82 (2.96)	10.21 (2.99) <sup>a</sup>	10.79 (3.83) <sup>a</sup>	21.341	<0.001
Rules	6.93 (2.35)	6.28 (2.12) <sup>a</sup>	6.37 (2.34)	7.464	<0.001
Consequences	11.24 (3.16)	10.36 (2.99) <sup>a</sup>	9.76 (2.88) <sup>a</sup>	13.217	<0.001

Note. Including sex and age as covariates.

<sup>a</sup> Significantly different from Non-use,  $p < 0.05$ .



**Table 3**  
Games-Howell post hoc multiple comparison analyses of the analysis of variance (ANCOVA).

	(I)	(J)	Mean Difference (I J)	Std. Error	Sig.	95 % CI	
						LB	UB
Communication	Non-Use	Only alcohol	1.268*	0.322	<0.001	0.50	2.04
		Alcohol and cannabis use	1.814*	0.496	0.001	0.62	3.01
	Only alcohol	Non-Use	-1.268*	0.322	<0.001	-2.04	-0.50
Social Support	Non-Use	Alcohol and cannabis use	0.546	0.539	0.933	-0.75	1.84
		Only alcohol	0.775*	0.236	0.003	0.21	1.34
	Only alcohol	Non-Use	1.598*	0.363	<0.001	0.73	2.47
Conflict	Non-Use	Alcohol and cannabis use	-0.775*	0.236	0.003	-1.34	-0.21
		Only alcohol	0.822	0.394	0.112	-0.12	1.77
	Only alcohol	Non-Use	-1.394*	0.240	<0.001	-1.97	-0.82
Rules	Non-Use	Alcohol and cannabis use	-1.975*	0.369	<0.001	-2.86	-1.09
		Only alcohol	1.394*	0.240	<0.001	0.82	1.97
	Only alcohol	Non-Use	-0.581	0.401	0.443	-1.54	0.38
Consequences	Non-Use	Alcohol and cannabis use	0.641*	0.180	0.001	0.21	1.07
		Only alcohol	0.553	0.277	0.138	-0.11	1.22
	Only alcohol	Non-Use	-0.641*	0.180	0.001	-1.07	-0.21
	Non-Use	Alcohol and cannabis use	-0.088	0.300	1.00	-0.81	0.63
		Only alcohol	0.878*	0.242	0.001	0.30	1.46
	Only alcohol	Non-Use	1.484*	0.373	<0.001	0.59	2.38
		Alcohol and cannabis use	-0.878*	0.242	0.001	-1.46	-0.30
		Alcohol and cannabis use	0.606	0.405	0.404	-0.37	1.58

Note. CI: Confidence Interval; LB: Lower Bound; UB:Upper Bound.

and boys exhibited more dual alcohol and cannabis use (Thompson et al., 2021). In the family variables, we did find that girls indicated that there was more communication and support in their families than boys, which is in line with the literature (Bireda & Pillay, 2018; Chen et al., 2019). Our results are consistent with previous research conducted in Spanish samples that found no significant differences in substance use according to sex but did find significant differences in family variables (Cutrín et al., 2017). In addition, we looked at the differences in the family variables between the participants who did not use either alcohol or cannabis, those who used only alcohol, and those who used both. The findings indicated significant differences between the groups. Non-users exhibited higher scores in communication and social support, less conflict, and more consequences for rule-breaking than alcohol users or dual users. The presence of rules was statistically greater in non-users than alcohol-only users. These results are consistent with findings of previous studies that have found an association between dual use in the last 12 months and poor communication, conflict, less support and lack of rules (Brière et al., 2011; Zuckermann et al., 2020).

With regard to the influence of family variables on the probability of boys consuming alcohol and cannabis, the results show that higher scores in family conflict were associated with a greater likelihood of being alcohol-user and dual-user than non-user. This is in line with previous studies that have found a robust relationship between family conflict and substance use (Best et al., 2014; Yap et al., 2017). In a longitudinal study, Heerde et al. (2019) found that adolescents who had used alcohol and cannabis in the previous year reported greater family conflict, relating that to problematic use of both substances in adulthood. In addition, Brière et al. (2011) noted a positive relationship between family conflict and dual alcohol and cannabis use. In the present study, we only saw this relationship in the male participants. One possible explanation for this result might be that family conflict is more common with boys, as girls tend to distance themselves less from their parents during adolescence, and reach more agreements with them (Hou et al., 2020). Substance use may also be a regulation strategy for the unease or discomfort family conflict causes (Trujillo et al., 2016), a strategy that is more likely in boys/men (Turner et al., 2018; Vázquez-Reyes et al., 2021). Nonetheless, our results differ from those presented by Nelson et al. (2017), who found that girls with higher scores in family conflict tended to be more likely to consume cannabis. They did not find significant results in boys, which they attributed to sex differences, with the possibility that parents supervised girls more and this produced more conflict.

For the girls in our study, higher scores in family communication were associated with a lower probability of consuming alcohol. Ohanessian et al. (2016) also found this relationship only in women. Xia et al. (2016) indicated that adolescent girls' proper communication with their parents is more strongly related to psychosocial wellbeing than in boys, which is why this may act as a protective factor for alcohol use. We did not find any differences with dual alcohol and cannabis use, possibly because the numbers of girls reporting this kind of use was very small. The size and number of studies need to be increased. On the other hand, girls who reported greater consequences for breaking the rules were associated with a lower likelihood of being dual users than non-users or only alcohol users. In this regard, Cox et al. (2018) found no relationship between the presence of family rules and alcohol use, whereas Miller et al. (2017) found a negative relationship between cannabis use and the family applying consequences in relation to that use, which might explain why these results appear only for dual use.

Finally, another of our study's notable findings was that the influence of the family variables we looked at did not demonstrate significance with regard to the probability of being a dual user or an alcohol-only user, with the exception of differences in consequences for rule-breaking in girls. This is a new finding, because, as far as we know, no studies have examined the differential relationships of family variables concerning alcohol-only use compared to dual-use. One hypothesis that may, at least in part, explain this result is the normalization and increasing acceptance of cannabis use (Kilwein et al., 2022). It is important to note that the current study does not specifically explore the concurrent use of alcohol, cannabis, and tobacco, as tobacco smoking was not examined. Research investigating cannabis use in European samples usually report that tobacco and cannabis are frequently used together. This form of use leads to various implications, such as an increased likelihood of developing cannabis dependence (Agrawal et al., 2009) and the association of exposure to nicotine to a higher probability of future tobacco use among non-tobacco users (Belanger et al., 2013). Therefore, it is crucial to continue investigating this approach in future studies. It is essential to continue studying how family variables affect the different patterns of use through longitudinal studies that examine progression over time because adolescence is a critical period when it comes to experimenting with substance use (Moore et al., 2018), bearing in mind the sex of the participants. Looking at the broader picture, the quality of family relationships has a significant influence on the social and emotional well-being of adolescents (Weymouth et al., 2016). Furthermore, Fernández-Artamendi et al. (2021) highlighted the

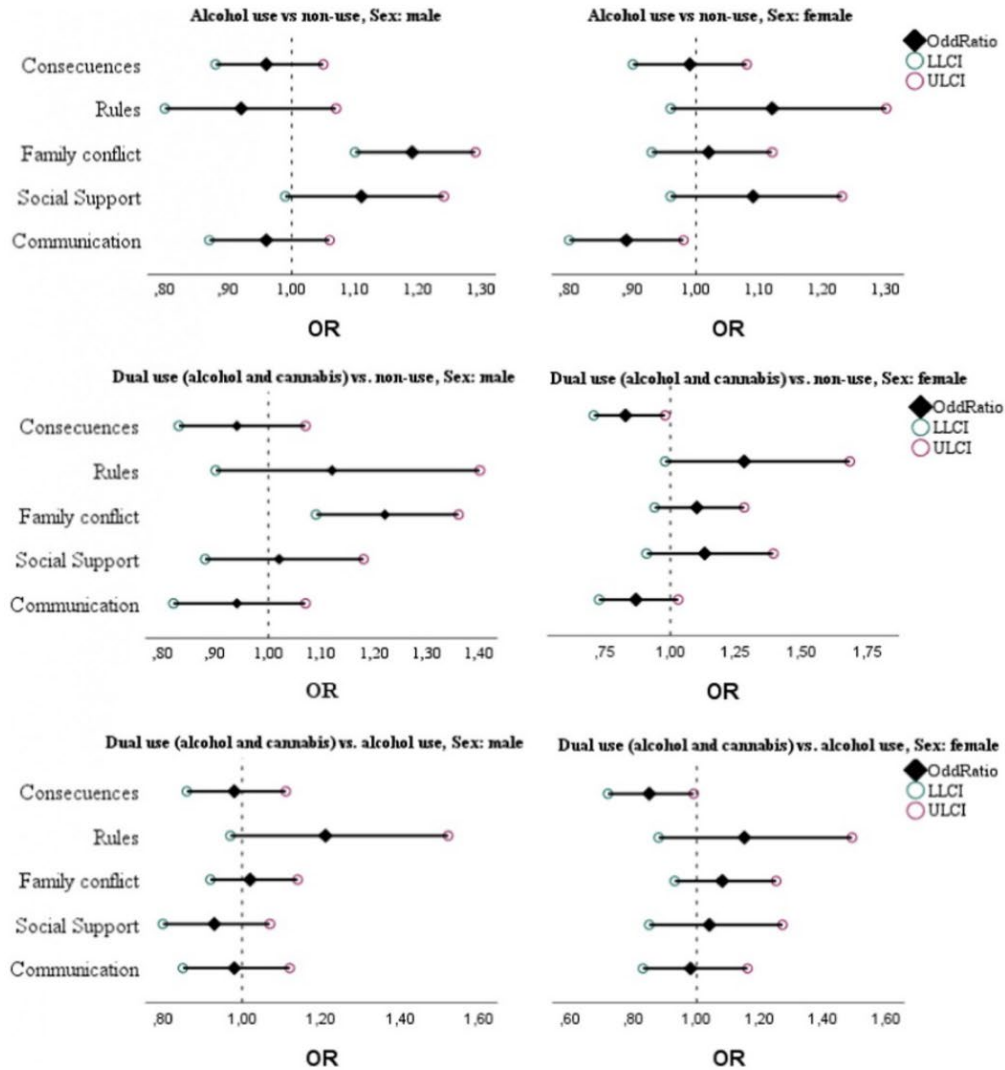


Fig. 1. Forest plots for alcohol and cannabis use during the last 30 days according to sex. Note. OR = odds ratio; LLCI = lower limit confidence interval; ULCI = upper limit confidence interval.

relevance of addressing mental health in adolescents to reduce substance use-related problems, particularly among girls, as a stronger association has been observed in this group.

These results show how it is not just family involvement that is needed in prevention and intervention for substance use in adolescence (Al-Halabí Díaz & Pérez, 2009; Errasti Pérez et al., 2009; Fonseca-Pedrero et al., 2021). As various authors have emphasized (Ballester et al., 2021; Díaz-Mesa et al., 2016), sex differences also need to be considered. Prevention programs such as “Familias que funcionan” or interventions such as “Functional Family Support Therapy” that include families present effective results for reducing both substance use and family risk factors (Errasti Pérez et al., 2009; Fernández-Artamendi et al., 2022). However, a gender-based approach is still a pending task.

#### 4.1. Limitations and strengths

The current study has some limitations to be considered in interpreting the results. First, causal and temporal interpretations could not

be established due to the cross-sectional nature of our data. Future research should examine longitudinal associations between family variables and different patterns of substance use. Second, due to the limited number of participants who exclusively used cannabis in the past 30 days, we could not investigate the relationship between family variables and only cannabis use. Furthermore, the small sample size prevented us from separately analyzing cannabis users who consumed only joints versus those who mixed it with tobacco. Third, we did not examine substance use quantity nor frequency but only use (vs. non use). In addition, we have no information on whether it was a first-time or regular use. Future studies with greater sample sizes and gathering complete information about forms of use and quantity are warranted to examine family variables and cannabis use further. Fourth, other social-related factors, such as the specific influence of siblings, have not been examined. Future studies should consider the role of siblings concerning substance use. Fifth, the self-reported and retrospective nature of the data collected may have inherent biases such as report bias, social desirability, stigma and participant’s ability to recall information. To



**Table 4**  
Multinomial regression analysis of alcohol and cannabis use during the last 30 days for male participants.

	B	SE	OR	OR 95 % CI	
				Lower	Upper
<b>Only alcohol use (n = 118) vs non-use (n = 325)</b>					
Age	0.62	0.08	1.86***	1.60	2.15
Communication	-0.04	0.05	0.97	0.88	1.06
Social Support	0.10	0.06	1.11	0.99	1.24
Conflict	0.17	0.04	1.19***	1.09	1.29
Rules	-0.08	0.07	0.93	0.80	1.07
Consequences	-0.05	0.5	0.95	0.87	1.04
<b>Cannabis and Alcohol use (n = 49) vs non-use (n = 325)</b>					
Age	0.75	0.11	2.11***	1.71	2.61
Communication	-0.07	0.07	0.93	0.82	1.07
Social Support	0.01	0.07	1.00	0.87	1.16
Conflict	0.20	0.06	1.23***	1.10	1.36
Rules	0.08	0.11	1.09	0.88	1.35
Consequences	-0.03	0.06	0.97	0.86	1.09
<b>Cannabis and Alcohol use (n = 49) vs only alcohol use (n = 118)</b>					
Age	0.13	0.11	1.14	0.93	1.40
Communication	-0.04	0.07	0.97	0.84	1.10
Social Support	-0.10	0.07	0.91	0.79	1.04
Conflict	0.03	0.05	1.03	0.93	1.15
Rules	0.16	0.11	1.17	0.95	1.46
Consequences	0.02	0.06	1.02	0.90	1.15

Note. Model fit:  $R^2 = 0.295$  (Cox & Snell), 0.362 (Nagelkerke). Model  $\chi^2(12) = 172.205$ ,  $p < 0.001$ .

OR = odds ratio; CI = confidence interval; SE = standard error.

\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ .

**Table 5**  
Multinomial regression analysis of alcohol and cannabis use during the last 30 days for female participants.

	B	SE	OR	OR 95 % CI	
				Lower	Upper
<b>Only alcohol use (n = 111) vs non-use (n = 236)</b>					
Age	0.73	0.09	2.08***	1.75	2.47
Communication	-0.13	0.05	0.88*	0.79	0.98
Social Support	0.08	0.06	1.08	0.96	1.23
Conflict	0.12	0.05	1.01	0.92	1.23
Rules	0.10	0.08	1.11	0.95	1.30
Consequences	-0.01	0.05	0.99	0.90	1.09
<b>Cannabis and Alcohol use (n = 29) vs non-use (n = 236)</b>					
Age	0.94	0.15	2.56***	1.89	3.45
Communication	-0.13	0.09	0.88	0.74	1.04
Social Support	0.10	0.10	1.13	0.91	1.39
Conflict	0.07	0.08	1.07	0.92	1.24
Rules	0.24	0.13	1.29	0.98	1.68
Consequences	-0.18	0.08	0.83*	0.71	0.97
<b>Cannabis and Alcohol use (n = 29) vs only alcohol use (n = 111)</b>					
Age	0.21	0.15	1.23	0.92	1.64
Communication	-0.01	0.08	0.99	0.85	1.18
Social Support	0.02	0.10	1.03	0.84	1.25
Conflict	0.06	0.07	1.06	0.91	1.22
Rules	0.16	0.13	1.18	0.91	1.52
Consequences	-0.17	0.08	0.84*	0.72	0.98

Note. Model fit:  $R^2 = 0.312$  (Cox & Snell), 0.381 (Nagelkerke). Model  $\chi^2(12) = 140.345$ ,  $p < 0.001$ .

OR = odds ratio; CI = confidence interval; SE = standard error.

\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ .

mitigate the impact of this, we used a short and recent time period for substance use assessment (last 30 days use) in line with previous research (Kalmijn, 2022; Pedersen et al., 2019). Finally, we only gathered information adolescents provided and did not include parent report measures concerning family variables. Future studies should also include parent-reported data in order to prevent possible bias.

Our study does have some strengths. Methodologically, it focuses on a sample of adolescents between 11 and 19 years old ( $n = 879$ ), whereas

other studies have looked at young adults (17–25 years old) (Green et al., 2017; Hernández-Serrano et al., 2021; Stevens et al., 2021). This is important in the design of prevention policies (González-Roz et al., 2023). Patterns of use established during adolescence are likely to be maintained over time (Terry-McElrath et al., 2017; Tomczyk et al., 2016), and the number of different substances being used may grow (Merrin et al., 2018). In addition, our analysis considered the influence of age, reducing the possibility of bias. The analysis differentiated by sex also produced more specific results and was more sensitive to sex differences, unlike other studies which referenced samples in general (Brière et al., 2011; Zuckerman et al., 2020). Moreover, a novel approach is provided by considering the pattern of cannabis use in Europe, thus supporting cross-cultural studies. Finally, another novel aspect of our study was the inclusion of analysis of dual alcohol and cannabis use in the previous 30 days, compared to previous studies which looked that the previous 12 months. This methodological approach gave added information to the study in terms of family dynamics, as that can vary less over short time periods than over longer periods.

## 5. Conclusions

This study contributes to the information in the literature about how family variables influence the probability of adolescents being users of alcohol, dual users of alcohol and cannabis, or non-users according to sex. The study confirms that various family variables influence that probability. However, there were family variables that were common to both types of use, whereas others only exhibited relationships with one type, and some variables were different for boys and girls. More specifically, in boys, family conflict was related to a greater probability of being a user of alcohol alone or a dual user of alcohol and cannabis. In girls, communication reduced the probability of both types of use, and the presence of consequences for breaking family rules reduced the probability of dual use rather than alcohol-only use.

## CRedit authorship contribution statement

**Dalila Eslava:** Conceptualization, Methodology, Investigation, Resources, Data curation, Writing – original draft. **Carmela Martínez-Vispo:** Conceptualization, Methodology, Formal analysis, Data curation, Writing – original draft. **Víctor José Villanueva-Blasco:** Conceptualization, Methodology, Investigation, Resources, Writing – review & editing, Supervision, Funding acquisition. **José Manuel Errasti:** Writing – review & editing, Visualization. **Susana Al-Halabí:** Conceptualization, Methodology, Writing – review & editing, Visualization, Supervision.

## Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## Data availability

Data will be made available on request.

## Appendix A. Supplementary material

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.addbeh.2023.107798>.

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# Discusión

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El objetivo general de la presente tesis doctoral fue profundizar en la relación de las dinámicas familiares y determinadas variables personales con el consumo de sustancias y la conducta suicida en la adolescencia. Se han publicado tres artículos, dos de los cuales abordaron el consumo de sustancias y un tercero se centró en la conducta suicida.

El primer artículo (Eslava et al., 2022) tenía como objetivo conocer el papel mediador de la impulsividad en la relación entre el conflicto familiar y el consumo de tabaco, tanto a través de cigarrillos convencionales como cigarrillos electrónicos. Hasta donde se conoce, no existe ningún estudio previo que hubiera examinado el papel de los rasgos de impulsividad en esta relación. A través de un análisis de mediación, los resultados mostraron que el conflicto familiar no tenía un efecto directo estadísticamente significativo en el consumo de tabaco. No obstante, sí se encontró un efecto indirecto. La búsqueda de sensaciones mediaba positivamente la relación entre el conflicto familiar y el uso de cigarrillos convencionales y cigarrillos electrónicos. En el caso de los cigarrillos convencionales, los resultados también mostraron esta relación a través de la falta de premeditación. Otros estudios han encontrado resultados similares para el consumo de alcohol y cannabis (Trujillo et al., 2016). Además, los resultados apoyan la idea de que el concepto de impulsividad incluye constructos psicológicos independientes (Strickland y Johnson, 2021). Estos hallazgos tienen implicaciones en la prevención y tratamiento del tabaquismo en la adolescencia. A la hora de diseñar estrategias es importante considerar la implicación de la familia, el entrenamiento de habilidades de regulación emocional y la inclusión del uso de cigarrillos electrónicos cuando abordamos el tabaco.

El segundo artículo (Eslava et al., 2023a) pretendía examinar el efecto directo e indirecto del conflicto familiar en la ideación suicida, en los intentos suicidas y en la puntuación total de la conducta suicida a través de la *Paykel Suicide Scale* (Fonseca-Pedrero et al, 2017; Paykel et al., 1974) a través del esquema interpersonal asertivo. No se encontró ningún estudio que hubiera abordado anteriormente el papel mediador del esquema interpersonal asertivo en la relación entre el conflicto familiar y la conducta suicida. Respecto a la ideación suicida, los resultados mostraron un efecto directo del conflicto familiar y un efecto indirecto a través del esquema interpersonal asertivo,

explicando un 72% de la relación. Respecto a los intentos de suicidio, se encontró un efecto directo del conflicto familiar y un efecto indirecto a través del esquema interpersonal asertivo, explicando un 23% de la relación. Y en el caso de la puntuación total de la conducta suicida, que incluía la ideación y los intentos, se encuentran resultados similares, explicando el esquema interpersonal asertivo el 66% de la relación. Estos hallazgos resaltan el papel del conflicto familiar, tal y como otros autores han hecho (Berk, 2022; Zygo et al., 2019), pero además destacan la importancia del entrenamiento de habilidades sociales, como el esquema interpersonal asertivo, en el bienestar psicológico de los adolescentes. Esto puede resultar ser beneficioso en el manejo de las situaciones estresantes en la familia. Asimismo, este papel mediador es mayor en la ideación suicida que en los intentos, información importante bajo las teorías del marco *Ideation-to-Action* (O'Connor y Kirtley, 2018).

El tercer artículo (Eslava et al., 2023b) tenía como objetivo explorar la relación entre las variables familiares y el consumo dual de alcohol y cannabis, el consumo solo de alcohol y el no consumo en función del sexo. Se trata de un estudio pionero pues, hasta donde alcanza el conocimiento de los autores, anteriormente no se había estudiado la relación de las variables familiares con el consumo dual de alcohol y cannabis teniendo en cuenta el sexo de los participantes. Los resultados mostraron que las variables familiares influyeron en la probabilidad de consumir alcohol (solo) y en el consumo dual alcohol y cannabis, en consonancia con otros autores (Brière et al., 2011; Zuckerman et al., 2020). El presente estudio mostró algunas diferencias significativas en función del sexo. En los chicos, los participantes con mayores puntuaciones en conflicto familiar tenían mayor probabilidad de ser consumidores de alcohol (solo) y consumidores duales de alcohol y cannabis frente a no ser consumidores. En el caso de las chicas, aquellas participantes con mayores puntuaciones en comunicación familiar presentaban menor probabilidad de ser consumidoras de alcohol (solo) frente a no ser consumidoras. Además, aquellas con puntuaciones más altas en recibir consecuencias por no cumplir las normas en la familia presentaban menor probabilidad de ser consumidoras duales de alcohol y cannabis frente a las consumidoras de alcohol y las no consumidoras. Estos hallazgos pueden deberse a que los chicos y las chicas reciben



una educación social y afectiva diferente (Godleski et al., 2020). El estudio no encontró que las variables familiares influyeran en la probabilidad de ser consumidor dual frente a consumidor de alcohol. Este resultado puede deberse a la normalización y aceptación del consumo de cannabis (Kilwein et al., 2022). Estos hallazgos no solo ratifican la importancia de incluir a las familias en los programas de prevención e intervención del consumo de sustancias en la adolescencia (Fernández-Artamendi et al., 2022b), sino que también ensalzan la importancia de un abordaje con perspectiva de género.

Una vez presentados los resultados de los artículos que comprenden la tesis doctoral, se apoya la idea del relevante papel de las dinámicas familiares (particularmente del conflicto familiar) en los problemas psicológicos en la adolescencia, tales como las conductas adictivas y la conducta suicida. Asimismo, los rasgos de impulsividad y la interpretación que el adolescente hace de las situaciones de conflicto parecen tener un rol importante. Por este motivo, las habilidades de regulación emocional que el adolescente posea le permitirán manejar mejor o peor este tipo de situaciones familiares. Además, las dinámicas familiares parecen influir de forma diferente según el sexo del adolescente. Esto puede deberse tanto a que los padres respondan diferente a sus hijos e hijas (Naldini et al., 2018), como a que los adolescentes, dependiendo de su sexo y en función de los roles de género socialmente establecidos, tengan interpretaciones diferentes del contexto familiar o respondan de otra forma a las exigencias de esta etapa del desarrollo (Guo et al., 2018). Todo esto pone en valor no solo el papel de las dinámicas familiares sino la necesidad de educar y entrenar en habilidades para la tolerancia del malestar y de las emociones intensas, así como en entenderlas adecuada y saludablemente. De hecho, estas habilidades se han señalado como relevantes a la hora de abordar ambos problemas (Busby et al., 2020; González-Roz et al., 2023; Kim et al., 2020), siendo un contenido recomendado para las intervenciones con familias (SIIS, 2023), y desempeñan un papel fundamental en la promoción de la salud mental (Tejada-Gallardo et al., 2020)

Hay que destacar que el ámbito escolar es un entorno óptimo para promover y cuidar el bienestar de los adolescentes. La mayoría de los adolescentes pasan largos periodos en la escuela, siendo esta uno de los principales agentes participes en su

desarrollo psicosocial y convirtiéndose así en el entorno natural de la prevención (Fonseca-Pedrero et al., 2023c). Además, las intervenciones escolares que incluyen a las familias han demostrado resultados eficaces (Newton et al., 2017), sobre todo aquellas desarrolladas desde el enfoque de competencias y habilidades parentales que incluyen tanto a progenitores como a los niños y adolescentes (SIIS, 2023). No obstante, en ocasiones, contar con la familia es una tarea compleja, siendo habitual las tasas bajas de participación. Por ello, se ha propuesto adoptar metodologías que ayuden a la conciliación, como utilizar métodos online (Newton et al., 2017; SIIS, 2023).

Por parte de los profesionales, existe la responsabilidad de atender y cuidar el desarrollo de los niños y adolescentes, escuchando y atendiendo sus necesidades, así como estudiando y trabajando siempre desde la evidencia científica (Fonseca-Pedrero et al., 2023c; SIIS, 2023). Esta tesis doctoral ha pretendido colaborar con esta labor y aportar conocimiento sobre dos fenómenos presentes en la adolescencia.

### **Limitaciones y fortalezas**

La presente tesis doctoral tiene una serie de limitaciones y fortalezas que se enumeran a continuación. Respecto a las limitaciones, en primer lugar, se trata de estudios transversales y estos no permiten establecer relaciones causales y temporales. No obstante, en el caso de los análisis de mediación se realizaron los modelos reversos para comprobar si el efecto indirecto seguía el modelo planteado o, por el contrario, también era estadísticamente significativa la otra dirección, no encontrando significación y reforzando así las relaciones hipotetizadas (Preacher y Hayes, 2008). En segundo lugar, los datos fueron recogidos a través de cuestionarios de autorregistro y, aunque este tipo de cuestionarios han demostrado su eficacia en las respuestas, pueden verse afectados por los sesgos y la deseabilidad social (Krumpal, 2013). Y, en tercer lugar, en el caso del segundo artículo, no se pudo disponer de una muestra amplia, ya que varios centros rechazaron participar en el estudio por miedo o estigma hacia el tema de la conducta suicida, lo que pone de manifiesto la presencia de mitos y tabúes en torno a la conducta suicida y la necesidad de seguir sensibilizando e investigando en este campo de conocimiento (Al-Halabí y Fonseca-Pedrero, 2021).

Respecto a las fortalezas, en primer lugar, la tesis doctoral ha tenido como base teórica fuentes recientes y teorías emergentes que actualmente sientan las bases de los fenómenos estudiados. En segundo lugar, hay que destacar el tamaño de la muestra para el primer y tercer artículo, compuesta por 879 participantes menores de edad. Aunque se trata de población cautiva, sigue siendo una población de difícil acceso al tener que conseguir la autorización explícita de los tutores legales. En tercer lugar, en los consumos se ha tenido en cuenta la medida de “los últimos 30 días” en comparación de otros artículos que se centran en “los últimos 12 meses”. El uso de medidas de consumo a corto plazo ofrece resultados más fiables sobre la relación con las otras variables (Robinson et al., 2014). Y, por último, los artículos publicados que componen la tesis aportan datos novedosos y relevantes que contribuyen al avance en el campo de conocimiento de las conductas problema de la adolescencia.

### **Líneas futuras e implicaciones prácticas**

Es extensa la bibliografía que destaca el papel de la familia en la prevención del consumo de sustancias y de la conducta suicida. Los resultados de la presente tesis doctoral no solo apoyan esta relación, sino que pretenden indicar el camino hacia futuras líneas de investigación.

En el caso del consumo de sustancias en este periodo de desarrollo, Fernández-Artamendi et al. (2022a) señalan que, para resolver adecuadamente los retos propios de la adolescencia, el adolescente cuenta principalmente con un entorno social, a veces de apoyo y, otras, de riesgo, y con sus estilos cognitivos, que serán más o menos adaptativos. En la presente tesis doctoral, se estudió el papel mediador de los rasgos de impulsividad entre el conflicto familiar y el consumo de tabaco. Trujillo et al. (2016) realizaron un estudio similar para el alcohol y el cannabis, encontrando resultados similares. Otras variables podrían tener un papel mediador en estas relaciones como, por ejemplo, el esquema interpersonal asertivo, ya que contribuye a que el adolescente entienda los conflictos como algo manejable (Vagos y Pereira, 2010). Por otro lado, en este fenómeno hay diferencias entre chicos y chicas, tanto en las sustancias que consumen y su frecuencia, como en las intervenciones eficaces (Fernández-Artamendi

et al., 2022a). Por ello, su abordaje implica considerar las diferencias en función del sexo, lo que se ha tenido presente en la elaboración de esta tesis doctoral. Además, es necesario que todo este conocimiento

Respecto a la conducta suicida, Espada-Sánchez et al. (2023) y Fonseca-Pedrero et al., (2022a) indican que, especialmente en la adolescencia, el abordaje del suicidio es un área que aún requiere atención para mejorar la detección precoz, la evaluación y el tratamiento del fenómeno, dando importancia al elemento preventivo. La OMS ha desarrollado un enfoque de prevención del suicidio llamado LIVE LIFE donde recomienda cuatro puntos para las intervenciones basadas en la evidencia (WHO, 2021). En uno de estos puntos se recomienda *fomentar habilidades socioemocionales para la vida en los adolescentes*. Y, concretamente, la presente tesis doctoral ha encontrado resultados estadísticamente significativos para el afrontamiento del conflicto familiar, por lo que sería interesante valorar esta variable personal en el abordaje preventivo. No obstante, es necesario que este tipo de relaciones se estudien en muestras representativas y con nuevos procedimientos que examinen más detalladamente la relación con los factores de riesgo y protección junto con otras variables implicadas en el carácter interactivo de este fenómeno (Fonseca-Pedrero et al., 2023a; Fonseca-Pedrero et al., 2022c).

Para finalizar, destacar la necesidad de que todos colaboremos para construir un entorno que fomente el bienestar psicológico, sobre todo en una etapa tan sensible como lo es la adolescencia (Fonseca-Pedrero et al., 2023c). Es necesario establecer un escenario donde la ciencia y la práctica vayan de la mano. Se necesita implementar intervenciones efectivas y que estas a su vez aporten conocimiento (Medina-Martínez y Villanueva-Blasco, 2023; SIIS, 2023). Y todo esto sin olvidar la presencia de grupos en situación de vulnerabilidad, que además son aquellos con menos acceso a la atención efectiva. Por ello, la mejora en la atención de la salud mental (en las dos problemáticas que aborda la presente tesis doctoral y otras de gran presencia como la ansiedad o la depresión) debe ir unida a la comprensión de la vida y las circunstancias de estas personas para lograr una reducción de esas barreras (Fonseca-Pedrero et al., 2023b; Fonseca-Pedrero et al., 2023c).

# Conclusiones

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## 1.- Conclusiones

Tras los resultados obtenidos en la presente tesis doctoral, se puede concluir lo siguiente:

- El conflicto familiar está asociado con el consumo de tabaco de cigarrillos convencionales y cigarrillos electrónicos a través de rasgos de impulsividad, concretamente, mediante la búsqueda de sensaciones y la falta de premeditación.
- El conflicto familiar se asocia con la presencia de ideación suicida y de intentos de suicidio, teniendo el esquema interpersonal asertivo un papel como variable mediadora. De hecho, explica la relación positiva del conflicto familiar con la ideación suicida en un 72% y en un 23% en el caso de los intentos de suicidio.
- Las variables familiares influyen en la probabilidad de que los adolescentes sean consumidores de alcohol, consumidores duales de alcohol y cannabis o no consumidores, pero con diferencias en función del sexo. Concretamente, en los chicos, el conflicto familiar está relacionado con una mayor probabilidad de ser consumidor de alcohol y de ser consumidor dual de alcohol y cannabis frente a no ser consumidor. En las chicas, la comunicación redujo la probabilidad de consumo dual de alcohol y cannabis frente a no ser consumidora, y la presencia de consecuencias por incumplir las normas familiares redujo la probabilidad de ser consumidora dual de alcohol y cannabis frente a ser consumidora solo de alcohol y no consumidora.

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# Apéndices

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## APÉNDICE A. CUESTIONARIO DE RECOGIDA DE DATOS

ESCALA 1 – Pase \_\_\_ Año \_\_\_\_\_

CENTRO ESCOLAR:

CURSO/AULA:

CLAVE:

A continuación vas a encontrar algunas preguntas acerca de diversos temas. Esto no es un test ni un examen, por lo que no hay respuestas correctas o incorrectas. Por favor, escucha atentamente las instrucciones dadas por la persona que te ha dado el cuestionario y contéstalas con sinceridad. Todas tus respuestas serán siempre confidenciales, de modo que nadie podrá saber qué es lo que has contestado. Si tienes alguna duda, por favor, levanta la mano y la persona que te ha entregado el cuestionario se acercará a ti para resolverla. Muchas gracias por tu colaboración.

Marca con una X o con un  la respuesta que más se ajuste a lo que tú piensas o haces, o que más se aproxime.

SEXO: Hombre Mujer

EDAD (años cumplidos):

¿En qué mes y en qué año naciste?

MES   AÑO

¿EN QUÉ PAÍS NACISTE?

- España.....  1
- Otro país .....  2 → **P3A ¿QUÉ PAÍS?** \_\_\_\_\_  
(Escribe el nombre del país)

¿EN QUÉ PAÍS NACIÓ TU MADRE?

- España .....  1
- Otro país .....  2 → **P4A ¿QUÉ PAÍS?** \_\_\_\_\_  
(Escribe el nombre del país)
- No sabes .....  9

¿EN QUÉ PAÍS NACIÓ TU PADRE?

- España .....  1
- Otro país .....  2 → **P5A ¿QUÉ PAÍS?** \_\_\_\_\_  
(Escribe el nombre del país)
- No sabes .....  9

**1. A continuación aparece una serie de frases, rodea con un círculo la respuesta que más se aproxime a tu situación respecto a su familia.**

	Nunca	A veces	Normalmente	Casi siempre	Siempre
1. Conversamos agradablemente y de forma distendida.	1	2	3	4	5
2. Las normas de casa las establecemos conjuntamente.	1	2	3	4	5
3. Solemos discutir.	1	2	3	4	5
4. Cumplimos los castigos por saltarnos las normas.	1	2	3	4	5
5. Me apoyan emocionalmente (me respetan, me quieren, me ofrecen seguridad, etc.).	1	2	3	4	5
6. Expresamos nuestros sentimientos con facilidad.	1	2	3	4	5
7. Me ayudan cuando me encuentro mal.	1	2	3	4	5
8. Cuando hablamos somos sinceros.	1	2	3	4	5
9. Reñimos por cosas que son insignificantes.	1	2	3	4	5
10. Sabemos las consecuencias del incumplir las normas.	1	2	3	4	5
11. Es fácil encontrar momentos para hablar de las cosas.	1	2	3	4	5
12. Nos enfadamos.	1	2	3	4	5
13. Los consejos que me ofrecen son de utilidad.	1	2	3	4	5
14. Llevamos a cabo los castigos por saltarnos las normas.	1	2	3	4	5
15. Acabamos discutiendo por pequeñas cosas.	1	2	3	4	5
16. Intentamos comprender el punto de vista del otro.	1	2	3	4	5
17. Negociamos las normas de convivencia.	1	2	3	4	5
18. Reconocen cuando hago las cosas bien.	1	2	3	4	5

Nombra a los 3 mejores amigos que tienes en esta clase. Pon su nombre y primer apellido.

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**2) ¿Qué edad tenías cuando hiciste por primera vez cada una de las cosas siguientes?**

	Nunca	11 años (o menos)	12 años	13 años	14 años	15 años	16 años	17 años
2.1.) Cánnabis (hachís, marihuana)	0	1	2	3	4	5	6	7
2.2.) Alcohol	0	1	2	3	4	5	6	7
2.3) Te emborrachaste	0	1	2	3	4	5	6	7
2.4) Tabaco (cigarro tradicional)	0	1	2	3	4	5	6	7
2.5.) Cigarrillo electrónico	0	1	2	3	4	5	6	7
2.6) Vaporizador	0	1	2	3	4	5	6	7

**3) ¿Cuántos días has tomado bebidas alcohólicas? Marca con una "X" donde corresponda en cada una de las tres columnas.**

(3.1) En tu vida		(3.2) En los últimos 12 meses		(3.3) En los últimos 30 días	
Ningún día	0	Ningún día	0	Ningún día	0
1 día	1	1 día	1	1 día	1
2 días	2	2 días	2	2 días	2
3 días	3	3 días	3	3 días	3
4-5 días	4	4-5 días	4	4-5 días	4
6-9 días	5	6-9 días	5	6-9 días	5
10-19 días	6	10-19 días	6	10-19 días	6
20 días o más	7	20 días o más	7	20 días o más	7

**4) ¿Cuántas veces te has emborrachado en los últimos 12 meses? (Si no te has emborrachado, escribe cero) *Me he emborrachado* \_\_\_\_\_ veces.**

**5) ¿Cuántas veces te has emborrachado en los últimos 30 días? (Si no te has emborrachado, escribe cero) *Me he emborrachado* \_\_\_\_\_ veces.**

**6) Indica si has fumado tabaco (cigarro tradicional):**

- (0) Nunca he fumado
- (1) Sólo lo he probado
- (2) He fumado alguna vez, pero sólo algunos en mi vida
- (3) Fumaba con cierta frecuencia, pero ya lo he dejado ¿cuánto hace que lo dejaste? \_\_\_\_\_ meses
- (4) Fumo en la actualidad

**7) ¿Has fumado tabaco (cigarro tradicional) en los últimos 12 meses? Sí No**

**8) ¿Con qué frecuencia has fumado tabaco (cigarro tradicional) en los últimos 30 días?**

- (0) Nunca
- (1) Menos de una vez a la semana
- (2) Alguna vez a la semana, pero no diariamente  
¿cuántos cigarrillos fumas a la semana aproximadamente? \_\_\_\_\_
- (3) Diariamente ¿cuántos cigarrillos fumas al día aproximadamente? \_\_\_\_\_

**9) Indica si alguno de tus progenitores fuma actualmente. Marca con una "X" donde corresponda.**

		No fuma	Fuma, pero no a diario	Fuma a diario
9.1) Tabaco (cigarro tradicional)	Madre	0	1	2
	Padre	0	1	2
9.2) Cigarrillo electrónico	Madre	0	1	2
	Padre	0	1	2
9.3) Vaporizador	Madre	0	1	2
	Padre	0	1	2

**10) Indica si has fumado cánnabis (hachís o marihuana):**

- (0) Nunca he fumado
- (1) Sólo lo he probado
- (2) He fumado alguna vez, pero sólo algunos en mi vida
- (3) Fumaba con cierta frecuencia, pero ya lo he dejado ¿cuánto hace que lo dejaste? \_\_\_\_\_ meses
- (4) Fumo en la actualidad

**11) Señala si consumiste cánnabis (hachís o marihuana) de alguna de estas maneras en los últimos 12 meses y en los últimos 30 días.**

Últimos 12 meses	(11.1) Cánnabis y tabaco mezclados (porro)	(11.2) Cánnabis sólo en porro	(11.3) Cánnabis sólo en pipa o cachimba	(11.4) Cánnabis sólo inhalado con un vaporizador o cigarrillo electrónico
Ningún día	0	0	0	0
1-2 días	1	1	1	1
3-5 días	2	2	2	2
6-9 días	3	3	3	3
10-19 días	4	4	4	4
20 días o más	5	5	5	5

Últimos 30 días	(11.5) Cánnabis y tabaco mezclados (porro)	(11.6) Cánnabis sólo en porro	(11.7) Cánnabis sólo en pipa o cachimba	(11.8) Cánnabis sólo inhalado con un vaporizador o cigarrillo electrónico
Ningún día	0	0	0	0
1-2 días	1	1	1	1
3-5 días	2	2	2	2
6-9 días	3	3	3	3
10-19 días	4	4	4	4
20 días o más	5	5	5	5

12) Has usado alguna vez:	(12.1) Cigarrillo electrónico	(12.2) Vaporizador
Nunca	0	0
Una o dos veces	1	1
Ocasionalmente pero no habitualmente	2	2
En el pasado de forma habitual	3	3
Actualmente de forma habitual	4	4



<b>13) En los últimos 30 días, ¿cuántos días has usado...?</b>	(13.1) <b>Cigarrillo electrónico</b>	(13.2) <b>Vaporizador</b>
0 días	0	0
1-2 días	1	1
3-5 días	2	2
6-9 días	3	3
10-19 días	4	4
20-29 días	5	5
30 días	6	6

<b>14) ¿Por qué motivos usas cigarrillo electrónico/vaporizador?</b>	<b>No</b>	<b>Sí</b>
Responder sólo en el caso de haberlo usado alguna vez o si lo usas actualmente		
1. Un amigo o familiar lo usa	0	1
2. Lo uso para ayudarme a dejar el fumar tabaco (cigarro tradicional)	0	1
3. Es más barato que el tabaco (cigarro tradicional)	0	1
4. Personas famosas lo usan en la televisión, cine o internet	0	1
5. Son menos dañinos que el tabaco en forma de cigarrillos	0	1
6. Hay de distintos sabores que me gustan (menta, fruta)	0	1
7. Puedo usarlo en lugares donde el tabaco (cigarro tradicional) no está permitido	0	1
8. Para probar la sensación y experimentar	0	1
9. Para relajarme	0	1
10. Para sentirme bien o colocarme	0	1
11. Para pasármelo bien con mis amigos	0	1
12. Porque me aburro	0	1
13. Porque estoy enganchado	0	1
14. Para usarlo con otras drogas	0	1
Otros:		

<b>15) ¿Cuántos de tus amigos usan cigarrillos electrónicos o vaporizadores?</b>	
0	Ninguno
1	1 o 2 personas
2	3 o 5 personas
3	6 o 8 personas
4	9 o más personas

<b>16) ¿Qué cantidad de nicotina sueles utilizar en el cigarrillo electrónico o en el vaporizador?</b>	
0	No los uso
1	0 mg (sin nicotina)
2	2-6 mg (tabaco ligero)
3	9-12 mg (tabaco medio)
4	16-18 mg (tabaco fuerte)

17. A continuación se presentan algunas afirmaciones que pueden ser utilizadas para describir a una persona. Por favor, lee cada una de las frases e indica en qué grado te describen, utilizando la siguiente escala:

	Totalmente falso para mí	Falso para mí	No es verdadero ni falso para mí	Verdadero para mí	Totalmente verdadero para mí
1. Siempre tengo a alguien con quien hablar y que se preocupa de verdad de lo que me ocurre.	1	2	3	4	5
2. Me gusta como soy, incluso con mis defectos y mis virtudes.	1	2	3	4	5
3. Soy capaz de realizar las tareas de clase tan bien como cualquier otra persona.	1	2	3	4	5
4. Siento que no siempre puedo hacer lo que quiero, aunque esté capacitado/a.	1	2	3	4	5
5. Cuando estoy triste, enfadado/a o molesto/a, tengo a alguien que me apoya y me ayuda a sentirme mejor.	1	2	3	4	5
6. A las personas que les gusto, les gusto por lo que realmente soy.	1	2	3	4	5
7. Normalmente soy capaz de alcanzar las metas y objetivos que se me ponen.	1	2	3	4	5
8. Puedo ir en contra de la voluntad de otros, sin que me rechacen o culpen por ello.	1	2	3	4	5
9. Siento que soy especial para algunas personas.	1	2	3	4	5
10. Me merezco tanto amor, atención y respeto de los demás como cualquier otra persona, ni más ni menos.	1	2	3	4	5
11. Tengo tantas capacidades como la mayoría de la gente.	1	2	3	4	5
12. En las relaciones que tengo con los demás no dejo que me dominen pero tampoco trato de dominarlos a ellos.	1	2	3	4	5
13. Cuando alguien que me gusta se aleja de mí, trato de comprender por qué se aleja y resolver la situación.	1	2	3	4	5
14. Tengo a alguien que me entiende al que puedo expresar mis verdaderos sentimientos y pensamientos.	1	2	3	4	5
15. Es perfectamente posible que alguien me quiera.	1	2	3	4	5
16. Tengo tanta capacidad para las tareas escolares como cualquier otra persona, ni más ni menos.	1	2	3	4	5
17. Normalmente sé lo que quiero y soy capaz de tomar mis propias decisiones.	1	2	3	4	5
18. Normalmente soy capaz de tomar mis propias decisiones pero cuando no sé qué hacer tengo personas con las que puedo contar para que me den consejo y me orienten.	1	2	3	4	5
19. Me siento cómodo/a mostrándome tal y como soy y dejando que otras personas me conozcan.	1	2	3	4	5
20. Soy tan inteligente como cualquier otra persona.	1	2	3	4	5
21. Normalmente consigo que mis sentimientos se tengan en cuenta y que mis derechos se respeten fácilmente.	1	2	3	4	5

18. Por favor, indica tu grado de conformidad con cada una de las siguientes frases.

	Rotundamente de acuerdo	Algo de acuerdo	Algo en desacuerdo	Rotundamente en desacuerdo
1. Normalmente pienso cuidadosamente antes de hacer cualquier cosa.	1	2	3	4
2. Cuando estoy realmente animado, no suelo pensar en las consecuencias de mis acciones.	1	2	3	4
3. A veces, me gusta hacer cosas que dan un poco de miedo.	1	2	3	4
4. Cuando estoy irritado suelo actuar sin pensar.	1	2	3	4
5. En general me gusta asegurarme de llevar las cosas buen término.	1	2	3	4
6. Mi manera de pensar es normalmente meticulosa y centrada.	1	2	3	4
7. En el acaloramiento de una discusión, con frecuencia digo cosas de las que luego me arrepiento.	1	2	3	4
8. Termino lo que empiezo.	1	2	3	4
9. Disfruto mucho corriendo riesgos.	1	2	3	4
10. Cuando estoy rebosante de alegría, siento que no puedo evitar 'tirar la casa por la ventana'.	1	2	3	4
11. Casi siempre termino los proyectos que empiezo.	1	2	3	4
12. Con frecuencia empeoro las cosas porque actúo sin pensar cuando estoy irritado.	1	2	3	4
13. Normalmente tomo mis decisiones mediante un cuidadoso razonamiento.	1	2	3	4
14. Generalmente busco experiencias y sensaciones nuevas y excitantes.	1	2	3	4
15. Cuando estoy realmente contento por algo, tiendo a hacer cosas que pueden tener malas consecuencias.	1	2	3	4
16. Soy una persona que siempre deja el trabajo hecho.	1	2	3	4
17. Cuando me siento rechazado, frecuentemente digo cosas de las que luego me arrepiento.	1	2	3	4
18. Me gustan experiencias y sensaciones nuevas y excitantes, aunque causen un poco de miedo y sean poco convencionales.	1	2	3	4
19. Antes de implicarme en una nueva situación me gusta informarme sobre qué puedo esperar de ella.	1	2	3	4
20. Cuando estoy muy feliz, veo bien sucumbir a mis deseos o darme algún capricho de más.	1	2	3	4

**19.** Por favor, contesta considerando que se ajusta más a ti. **En las últimas dos semanas,** ¿has sentido lo siguiente?

	No	Sí
1. ¿Has sentido que la vida no merece la pena?	0	1
2. ¿Has deseado estar muerto? Por ejemplo, ir a dormir y desear no levantarse.	0	1
3. ¿Has pensado en quitarte la vida aunque realmente no lo fueras a hacer?	0	1
4. ¿Has llegado al punto en el que considerarías realmente quitarte la vida o hiciste planes sobre cómo lo harías?	0	1
5. ¿Alguna vez has intentado quitarte la vida?	0	1

**Muchas gracias por su atención.**