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Acción Psicológica es una revista semestral editada por la Facultad de Psicología de la Universidad Nacional de Educación a Distancia desde el año 2002. Publica artículos originales e inéditos de investigación, de revisión, contribuciones teóricas o metodológicas, como también estudios de casos sobre diversas áreas de la Psicología.

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RECUPERACIÓN LABORAL FUERA DEL TRABAJO: UNA REVISIÓN PARAGUAS DE REVISIONES SISTEMÁTICAS Y METAANÁLISIS

RECOVERY FROM WORK: AN UMBRELLA REVIEW OF SYSTEMATIC REVIEWS AND META-ANALYSIS

M. Ángeles López-González[1], Berta De-María[2], Fernando Rubio-Garay[2], Francisco Rodríguez-Cifuentes[1], Samuel Fernández-Salinero San Martín[1], Felisa Latorre[1] y Gabriela Topa[2]

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Resumen

El trabajo es una condición fundamental de la vida humana pero puede resultar disfuncional por acarrear consecuencias indeseadas y nefastas en determinadas situaciones. En este contexto se entiende la recuperación del trabajo (*recovery*) como contrapunto a los procesos de tensión a los que se ve sometida la persona en su puesto de trabajo. Dentro de las diferentes estrategias que los trabajadores ponen en marcha para recuperarse, resultan de especial relevancia las llevadas a cabo fuera de su horario laboral. El interés científico en esta materia queda patente en la publicación de numerosas revisiones sistemáticas en los últimos años. El objetivo de este estudio es clarificar y aportar evidencia sobre los resultados de las revisiones sistemáticas realizadas hasta la fecha. Así, se realizó una

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revisión paraguas de revisiones sistemáticas y metaanálisis sobre la recuperación laboral fuera del horario de trabajo. Para ello se llevó a cabo una búsqueda sistemática de documentos potencialmente relevantes en seis bases de datos, tanto temáticas como multidisciplinares. Se recuperaron ocho revisiones sistemáticas y metanálisis que cumplieron los criterios de inclusión establecidos. El análisis de contenido de los trabajos seleccionados permitió identificar diversas perspectivas o encuadres en el estudio de la recuperación laboral externa: (a) el período temporal; (b) las características del trabajo; (c) las experiencias de recuperación; (d) las actividades de recuperación; (e) los procesos que impiden que la recuperación sea efectiva; y (f) las variables cercanas al proceso de recuperación. Asimismo, se sistematizaron las principales variables sustantivas de naturaleza laboral y psicosocial consideradas en los diversos trabajos. Se discute la escasa atención prestada en los estudios revisados a las posibles diferencias culturales que podrían afectar al proceso de recuperación. Además, ninguna investigación hace mención especial a la pandemia por la COVID-19 en la recuperación laboral, ni tampoco a la potencial influencia de las nuevas realidades laborales en auge como el teletrabajo o los espacios virtuales compartidos (*co-working*).

Palabras clave: Recuperación laboral; recuperación externa; empleados; fuera del trabajo; revisión paraguas.

Abstract

Work is a fundamental condition of human life, but it can become dysfunctional because in certain situations it may lead to undesirable and harmful consequences. In this context, recovery from work (recovery) is conceived as a counterpoint to the straining processes to which the employee is exposed in the workplace. Among the different recovery strategies adopted by workers, those carried out outside working hours are especially relevant. Scientific interest in this filed is evidenced by the publication of numerous systematic reviews in recent years. The aim of this study is to shed light and provide evidence on the results of the systematic reviews carried out to date. Thus, it was conducted an umbrella review of systematic reviews and meta-analyses on work recovery outside working hours. To this end, a systematic search of potentially relevant documents was implemented in six databases, both thematic and multidisciplinary. Eight systematic reviews and meta-analyses that met the established inclusion criteria were retrieved. The content analysis of the selected papers enabled us to identify different approaches to the study of external work recovery: (a) time period; (b) work characteristics; (c) recovery experiences; (d) recovery activities; (e) processes that hinder effective recovery; and (f) variables proxy to the recovery process. Likewise, the main considered substantive occupational and psychosocial variables were systematized. It is discussed the scarce attention paid in the reviewed studies to possible cultural differences that could potentially influence the recovery process. Furthermore, no research has made special reference to the COVID-19 pandemic in work recovery, nor to the potential influence of new emerging work realities such as teleworking or co-working.

Keywords: Work recovery; external recovery; employees; off-work; umbrella review.

Introducción

El trabajo es una parte fundamental de la vida que provee a las personas de oportunidades para el desarrollo de un autoconcepto positivo, estatus y prestigio social, y les permite obtener un salario para asegurar su supervivencia, conectar socialmente con otras personas y estructurar el tiempo o desplegar y mejorar sus habilidades. El trabajo, además, dignifica a la persona y es un bien social que permite hacer frente a las desigualdades cuando es estable y se lleva a cabo en condiciones dignas (Organización Internacional del Trabajo [OIT], 1999).

No obstante, en ocasiones el trabajo también puede resultar disfuncional como cuando se hace repetitivo, no potencia adecuadamente la autonomía personal, tiene un carácter deshumanizante u ocasiona la percepción de sobrecarga o de estrés (ver Topa, 2012). En este sentido, si bien

el estrés puede provocar una activación general del organismo que favorece la consecución de conductas exitosas, también puede acarrear efectos indeseados y consecuencias nefastas a largo plazo. En este contexto, durante el siglo pasado surge el término tensión (*strain*) para referirse a las consecuencias negativas relacionadas con el estrés, como el absentismo, las quejas por dolencias físicas o la ansiedad. Desde la Psicología del Trabajo y de las Organizaciones, se han propuesto diversas teorías y modelos explicativos que conciben el origen de la tensión como una interacción entre variables presentes en la actividad laboral tales como, el modelo relacional Persona-Ambiente (P-E Fit model; Caplan et al., 1980; French et al., 1982) o el modelo Demandas-Control (Karasek y Theorell, 1990). Estos modelos teóricos han orientado de manera inevitable los desarrollos futuros, otorgando una gran importancia a los aspectos psicológicos involucrados en el proceso de estrés, y como reconoce el propio Karasek (1979) dejando fuera, habitualmente, la consideración de aspectos físicos relacionados con el estrés laboral (Vischer, 2007).

Entre las consecuencias asociadas al proceso de estrés es especialmente relevante el agotamiento, que aparece como resultado de una tensión física, afectiva y/o cognitiva intensa (Demerouti et al., 2001) cuando se mantienen presentes las demandas durante un largo periodo de tiempo. En este sentido, el agotamiento emocional parece predecir el cinismo, tanto a un nivel cognitivo, como afectivo y comportamental (Atalay et al., 2022). Además, tanto el agotamiento como el cinismo se han relacionado con el síndrome de estar quemado o *burnout* cuyas consecuencias negativas en el plano individual y organizacional ha sido mostrado extensamente por la literatura (Ginoux et al., 2021).

Recuperación laboral: conceptualización y tipos

Independientemente de la interacción entre las condiciones de trabajo y los recursos o capacidades con los que cuenta la persona, es innegable que el trabajo supone una actividad y un esfuerzo, físico y mental del que debe recuperarse el trabajador. En este contexto, se entiende la recuperación del trabajo (*recovery*) como contrapunto a los procesos de tensión a los que se ve sometida la persona en su puesto de trabajo. Esta recuperación engloba las diferentes estrategias que los trabajadores ponen en marcha para recobrar las energías perdidas.

Pese a lo intuitivo que pueda parecer este término, la realidad nos muestra un gran entramado teórico que se ha ido desarrollando a lo largo de los años. De esta manera, en la literatura científica se hace patente cómo las diferentes actividades asociadas a la recuperación pueden realmente no contribuir a la misma si la persona no lo percibe como tal. En este sentido, Sonnentag y Fritz (2015) plantean la idea de «experiencias de recuperación» (*recovery experiences*) para representar dicha percepción subjetiva sobre si el descanso durante el tiempo de ocio, ya sea pasivo o activo, ha resultado efectivo. Las autoras proponen cuatro dimensiones: distanciamiento psicológico, búsqueda de retos, relajación y control. Además, existen otros términos relacionados con las experiencias de recuperación como, por ejemplo, la «necesidad de recuperación» que se refiere al apremio por liberarse de las exigencias laborales y poder recuperarse de estas. Como puede observarse, los aspectos psicosociales son fundamentales para entender el fenómeno de la recuperación, si bien la propia Sonnentag (ver Sonnentag y Geurts, 2009) otorga importancia al descanso físico cuando reconoce que la relajación se produce tanto física como mentalmente.

Además, a pesar de las diferencias con otros constructos, este concepto ha ido evolucionado hasta hacerse necesario distinguir entre la recuperación interna y recuperación externa. Si bien en el pasado se apelaba a un criterio espacial a la hora de diferenciar ambos tipos, debido a los cambios producidos en el contexto laboral (i.e., irrupción del teletrabajo), parece más adecuado un criterio temporal (Alcover, 2021). De este modo, mientras que la recuperación interna se refiere a los procesos que tienen lugar durante el tiempo de trabajo –micro-descansos (Kim et al., 2017) o *job crafting* (Zahoor y Siddiqi, 2021)–, la recuperación externa hace referencia a aquellas posibilidades de restablecimiento después de la actividad laboral. En esta categoría podremos distinguir a su vez, entre la recuperación diaria (habitualmente por la tarde/noche), durante los fines de semana, o en las vacaciones. Estas diversas conceptualizaciones del término permitirían también hablar de la recuperación del trabajo que se produce *en* o *durante* el

mismo (interna) y de una recuperación *fuera* o *después* del trabajo (externa). Desde esta perspectiva temporal, podríamos hablar, asimismo, de otro tipo de recuperación relacionada con el trabajo, pero no como un producto directo de las demandas laborales: la recuperación *antes* o *para* el trabajo. Bajo esta óptica podrían tener cabida todas las investigaciones que estudian la recuperación de una condición médica, y la reincorporación al mundo laboral asociada (e.g., Franck, 2014), u otras como la pérdida de identidad laboral y su necesidad de restablecimiento (Conroy y O'Leary-Kelly, 2014).

Desde otro punto de vista, la recuperación puede estudiarse en función de las actividades que se lleven a cabo fuera del trabajo. Algunas investigaciones han procurado categorizarlas en función del potencial recuperador, diferenciando aquellas que pueden recuperar al sujeto, de aquellas que pueden drenar aún más sus recursos (Ginoux et al., 2021). Ahondando en la clasificación, concretamente en ocupaciones que pueden recuperar al sujeto, encontramos aquellas de baja carga, que, o bien no involucran el uso de recursos, o bien utilizan otros diferentes a los necesarios para el trabajo (e.g., relaciones sociales, ejercicio físico, actividades creativas o recreativas). Por otro lado, en relación con las ocupaciones fuera del trabajo que pueden drenar los recursos del sujeto encontramos, por ejemplo, tareas administrativas como el pago de facturas, o las tareas domésticas. En esta categorización Ginoux et al. (2021) discuten sobre si, por ser obligatorias, involucran los mismos recursos que las actividades laborales. En línea con la idea anterior, de Jonge et al. (2012, citado en Sonnentag y Fritz, 2015) sugieren que la forma de distanciarse del trabajo debería coincidir con el tipo específico de demandas de los estresores laborales. Así, las demandas cognitivas requerirían de un distanciamiento cognitivo (i.e., no pensar en el trabajo fuera del horario laboral) y las emocionales de un distanciamiento afectivo del trabajo (i.e., separarse de las emociones relacionadas con el trabajo). Siguiendo esta propuesta, las demandas físicas se resolverían con un distanciamiento físico del trabajo (i.e., evitar las condiciones o demandas laborales), lo que sería coherente con el reposo físico necesario tras un accidente laboral. Sin embargo, tal y como muestran las investigaciones relativas a los efectos de la actividad física en la recuperación a distintos niveles (Wiese et al., 2018), las dimensiones parecen estar relacionadas entre sí.

Finalmente, otra forma de conceptualizar el concepto de recuperación distingue entre recuperación como proceso y como resultado (Sonnentag y Geurts, 2009). La recuperación como proceso se refiere a las actividades anteriormente mencionadas y a las experiencias que tienen un efecto sobre la tensión (e.g., dormir). Por su parte, la recuperación como resultado hace referencia directa al estado psicológico y fisiológico que se consigue tras dicho periodo de recuperación (e.g., el estado de la persona al despertarse).

Justificación y objetivos

Como puede observarse, el término recuperación es un constructo multidimensional que admite diferentes clasificaciones en función de distintos criterios, además de estar relacionado con numerosas variables. Sirva como ejemplo, el estudio de van den Bogaard et al. (2016) en el que realizaron una comparativa entre personas neerlandesas que se jubilaban y aquellas que seguían trabajando, poniendo de manifiesto que las primeras reportaban mejores niveles de salud. De entre las personas que se jubilaban, las que habían tenido un trabajo altamente demandante a nivel psicológico obtenían los mejores resultados en salud, mientras que no se observó un efecto diferencial en función de haber tenido un trabajo físico especialmente demandante. Estos resultados muestran cómo el tipo de actividad laboral, pero también las características psicosociales e individuales como la vida laboral acumulada o el momento vital, podrían afectar a la recuperación. Por su parte, Sonnentag et al. (2017) realizaron un análisis del estado de la investigación del término y plantearon algunas propuestas para ulteriores investigaciones: en primer lugar, consideran tener en cuenta variables objetivas para evaluar el concepto como, por ejemplo, medidas de autoinforme. En segundo lugar, sugieren valorar las diferencias individuales y llevar a cabo estudios comparativos, tanto con diferentes rangos de edad, como con ocupaciones laborales diversas para una mejor comprensión del constructo. En tercer lugar, recomiendan explorar el papel que juega el clima organizacional en cuanto a la facilitación o entorpecimiento del proceso de recuperación. En cuarto lugar, quizá una de las sugerencias más importantes que señalan, se refiere a la necesidad de sopesar el aspecto temporal de la recuperación, habida cuenta del predominio de enfoques

transversales en las investigaciones. Finalmente, aconsejan poner el foco en los aspectos temporales concretos del proceso de recuperación e indagar sobre las potenciales diferencias entre descansos diarios o largas jornadas de recuperación de fin de semana.

Las sugerencias y recomendaciones de Sonnentag y colaboradores (2017) invitan a plantearnos cuál es el estado actual de la investigación sobre la recuperación fuera del trabajo. La amplitud del término *recuperación,* junto a la especificidad que suele acompañar al contenido de las distintas revisiones y los cambios que han acompañado en los últimos tiempos al mercado laboral, hacen necesario revisar el propio concepto de recuperación. Por ello, y teniendo en cuenta que ya se han realizado algunas revisiones sistemáticas y meta-análisis para arrojar luz en este contexto (e.g., Bennett et al., 2018; De Bloom et al., 2009; Wendsche y Lohmann-Haislah, 2017) se considera pertinente la realización de una revisión paraguas que proporcione un examen minucioso sobre la recuperación laboral fuera del trabajo, mediante la comparación y el contraste de los resultados de los diferentes estudios de revisión y metaanálisis publicados hasta la fecha. La elección de una revisión paraguas y no otro tipo de estudio de revisión sistematizada de la evidencia como, por ejemplo, una revisión de alcance, además de estar motivada principalmente por la existencia de revisiones sistemáticas previas, se fundamenta en diferentes razones. En primer lugar, la ambigüedad terminológica y metodológica del término «recuperación fuera del trabajo» requiere analizar si existe coherencia en la literatura sobre la base empírica del constructo o, por el contrario, si hay discrepancias y explorar sus causas. En segundo lugar, porque se trata de un constructo sobre el que ya se han realizado algunos estudios de síntesis de la investigación pero que, debido a su carácter multidimensional, es posible que algunas de sus dimensiones no se hayan tenido en cuenta en los estudios de revisión. Por último, porque una revisión paraguas permite evaluar la calidad metodológica de la síntesis de investigación. De esta manera, solamente las revisiones sistemáticas de alta calidad y elevado rigor metodológico deberían ser incluidas en la revisión general, tal y como se recomienda desde diversas organizaciones como Cochrane, la Campbell Collaboration y el Joanna Briggs Institute (véase López-López et al., 2022). En este sentido, la evaluación crítica de la calidad metodológica de las revisiones sistemáticas y los metaanálisis incluidos en una revisión paraguas ha de hacerse por revisores independientes mediante listas de comprobación u otros instrumentos o herramientas estandarizadas (López-López et al., 2022).

Así pues, el objetivo general de esta revisión es proporcionar una visión global y un resumen crítico de las revisiones sistemáticas y metaanálisis realizadas hasta la fecha sobre la recuperación laboral de los empleados fuera del tiempo de trabajo.

Método

Diseño

La presente revisión se estructuró teniendo en cuenta las indicaciones generales para las revisiones paraguas del Manual de Síntesis de la Evidencia del Joanna Briggs Institute (Aromataris y Munn, 2020).

Criterios de inclusión y exclusión

Los criterios de inclusión y exclusión se establecieron a partir de la pregunta de investigación basada en una adaptación de la estrategia PICO. En concreto, se diseñó un protocolo que sigue el formato «de-CPC» (documentos, estudios, Concepto, Participantes y Contexto).

Documentos

Se incluyeron los siguientes tipos documentales: (a) publicaciones periódicas: artículos de revista, y (b) publicaciones no periódicas: libros, capítulos de libros y tesis doctorales, siguiendo las recomendaciones de Martín et al. (2006) de incluir literatura gris para evitar el sesgo de publicación. Por su parte, se excluyeron tesis de máster o licenciatura, artículos periodísticos, comunicaciones breves, informes de casos, notas técnicas, obituarios, editoriales y literatura similar.

Estudios

Al tratarse de la síntesis de investigación existente a partir de revisiones sistemáticas y metaanálisis, solamente se incluyeron ambos tipos de estudios identificados como tales por los autores. No se consideraron ni trabajos teóricos, estudios de caso, estudios empíricos cuantitativos o cualitativos, ni otro tipo de revisiones como las narrativas (*narrative review*), las de alcance o panorámicas (*scoping review*), las de mapas (*focused mapping review synthesis*), las rápidas (*rapid review*), las integrativas (*integrative review*), o las meta-síntesis o revisiones paraguas (*umbrella review*).

Concepto

El fenómeno de interés de esta revisión fue la *recuperación laboral*.

Participantes

Se incluyeron revisiones cuyos estudios primarios contenían muestras de trabajadores asalariados, esto es: trabajadores por cuenta ajena, empleados públicos vinculados con las Administraciones Públicas por una relación estatutaria o una relación jurídico-laboral. Se excluyeron los estudios de revisión con trabajadores por cuenta propia (autónomos), estudiantes, cuidadores no remunerados de familiares, trabajo en el hogar no remunerado, etc.

Contexto

El contexto debía reflejar con claridad que las revisiones tratan sobre la recuperación externa, esto es, la recuperación que tiene lugar "fuera del tiempo de trabajo". Se excluyeron, por tanto, aquellos estudios de revisión con estudios primarios sobre la recuperación en el mismo lugar o tiempo de trabajo.

Estrategia de búsqueda

En la estrategia de búsqueda se siguió la metodología estandarizada que este equipo investigador había utilizado en otros estudios de revisión sistematizada siguiendo, por tanto, los mismos principios que los utilizados en revisiones sistemáticas previas (e.g., López-González et al., 2021; Rubio-Garay et al., 2017).

La ecuación de búsqueda fue desarrollada por los autores tras la realización de búsquedas exploratorias iniciales hasta la construcción de la búsqueda definitiva: [TI, AB, KW: (recovery AND ("off work" OR "during non-work time" OR "from work" OR "after work" OR "during off-job time" OR "during leisure time") AND ("systematic review" or "meta$analysis"))] incluyendo publicaciones hasta diciembre de 2021.

Fuentes de información

Los documentos se obtuvieron mediante la búsqueda en distintas fuentes de información, utilizando estrategias formales e informales. Así, en primer lugar, la búsqueda de documentos potencialmente relevantes se llevó a cabo en seis bases de datos electrónicas automatizadas, tanto de contenido temático (PsycINFO y MedLine), como de contenido multidisciplinar (Academic Search Ultimate, E-Journal, Scopus y Web of Science).

En segundo lugar, además de las bases de datos se incluyeron los principales repositorios de revisiones sistemáticas, como la base de datos JBI de revisiones sistemáticas, la base de datos Cochrane de revisiones sistemáticas, la base de datos de resúmenes de Reseñas de Efectos y el registro PROSPERO.

En tercer lugar, la búsqueda se complementó con la revisión de las referencias de las publicaciones recuperadas para localizar documentos potencialmente elegibles.

Por último, como estrategias informales se revisaron las redes sociales académicas (Google Académico, ResearchGate, Academia.edu, Dimensions y Publons) de expertos investigadores con la finalidad de localizar estudios inéditos o publicados en repositorios institucionales.

Tabla 1

Descripción y criterios de evaluación de calidad metodológica de las revisiones recuperadas

Criterio	Descripción
Objetivo explícito	Indicar si se ha reportado información sobre el objetivo general y específicos de la revisión/metaanálisis.
Criterios inclusión	Señalar si se han especificado adecuadamente los criterios de inclusión y exclusión de la revisión.
Diseño a priori	Informar si se construyó un protocolo o se detalla el método para minimizar los errores en la extracción de datos.
Estrategias de búsqueda	Informar si se utilizó algún tesauro, y notificar cómo se construyó la ecuación de búsqueda: (i) solo palabras clave separadas por comas o con una, (ii) buena sintaxis, incluidos operadores booleanos, de truncamiento o de proximidad, y (iii) especificando la ejecución en cada base de datos.
Rango de fechas	Especificar el período de búsqueda documental.
Idioma	Señalar si se utilizaron restricciones idiomáticas (e.g., inglés únicamente) o no
Recursos adecuados	Nombrar: (i) cuántas bases de datos se manejaron y si se complementó con búsquedas en otros recursos, (ii) bases de datos formales, y (iii) bases de datos formales e informales
Tipología documental	Indicar si se manejaron: (i) artículos de revista, libros o capítulos de libros, y (ii) si se complementó con literatura gris: tesis, congresos o conferencias.
Evaluación revisores	Debe haber al menos dos extractores de datos independientes y debe existir un procedimiento de consenso para los desacuerdos.

Selección, codificación de registros y extracción de datos

Los registros obtenidos de cada una de las bases de datos manejadas se exportaron a un gestor de referencias bibliográficas (EndNote 20.1).

Seguidamente, se creó una base de datos personalizada (formato Excel) para el tratamiento de cada registro, de modo que todos los ítems importados al gestor de referencias se exportaron a la base de datos creada. En ella se incluyeron datos bibliométricos: año de publicación, autor(es), título, nombre de la revista, tipología documental y resumen. Además, se añadieron una serie de campos enriquecidos siguiendo la aproximación nemotécnica «de-CPC» (documentos, Estudios, Concepto, Participantes y Contexto).

Durante la codificación, todos los registros identificados fueron sometidos a una revisión paralela por los miembros del grupo investigador siguiendo los criterios de inclusión y exclusión establecidos tanto para eliminar duplicados como para la no consideración, en su caso, de aquellos registros no relacionados con el objeto de estudio. Se organizaron reuniones en línea para discutir las inconsistencias y dudas, de modo que cualquier desacuerdo fue solventado por consenso entre los miembros del equipo.

A continuación, se realizó un análisis cualitativo de los resúmenes y de los textos completos. Ello permitió descartar y categorizar los estudios no pertinentes, así como clasificar los documentos seleccionados en diferentes categorías creadas siguiendo un procedimiento de análisis inductivo en base a las premisas de la Grounded Theory.

Evaluación de la calidad metodológica de los estudios

Se creó un sistema categorial (mediante la creación de una lista de comprobación) para clasificar la evidencia de las revisiones sistemáticas y los metaanálisis basados en criterios y procedimientos previos (Aromataris y Munn, 2020; Moher et al., 1999). La evaluación de la calidad metodológica de los estudios de revisión permitió solo la inclusión de revisiones sistemáticas y metaanálisis de alta calidad.

Tabla 2

Descripción y criterios de evaluación de calidad del tratamiento de los resultados de las revisiones recuperadas

Criterio	Descripción
Nº de documentos primarios	Especificar el número de documentos recuperados finalmente.
Diagrama de flujo	Indicar si se construyó un diagrama de flujo que permita visualizar el procedimiento seguido desde los documentos potencialmente recuperables hasta los finalmente seleccionados
Tratamiento de los datos excluidos	Especificar si se indica el número de registros excluidos en cada parte del proceso, indicando categorías de exclusión.
Instrumento de evaluación de la calidad	Indicar si los artículos primarios incluidos en las revisiones se han evaluado metodológicamente, especificando el instrumento manejado. Para los estudios de eficacia, indicar si los autores optaron por incluir ensayos controlados, doble o simple ciego, placebo; señalar si se aleatorizaron los participantes y el modo de llevarlo a cabo, etc. Para otro tipo de estudios, señalar ítems relevantes alternativos.
Rango de evaluación de la calidad	Indicar si se llevaron a cabo restricciones idiomáticas (e.g., solo en inglés) o no.
Apropiados los métodos para combinar los resultados	En el caso de metaanálisis, indicar si se utilizaron pruebas para garantizar que los estudios sean combinables: prueba de homogeneidad de chi-cuadrado, modelo de efectos aleatorios, etc. Señalar además si se evaluó el sesgo de publicación.
Conflicto de interés	Indicar las posibles fuentes de apoyo.

El procedimiento de valoración crítica de los estudios se llevó a cabo por dos revisores independientes que trabajaron de manera ciega y cuyas evaluaciones se comparaban solamente cuando la evaluación inicial de cada trabajo había sido completada por ambos. En el caso de falta de consenso con respecto a la calidad metodológica de algún estudio seleccionado, se solicitaba la ayuda del resto del equipo.

La lista de comprobación utiliza una serie de criterios puntuables como "se cumple", "no se cumple", "no está claro" y, en algunos casos, "no aplicable". La decisión de incluir un estudio se tomó si cumplían determinados criterios. Para facilitar la descripción de los criterios, se establecieron cuestiones relacionadas con la metodología de las revisiones y metaanálisis, por una parte, y con la explicación de los resultados por otro. Así, en cuanto a las cuestiones metodológicas, los ítems consignados fueron: (a) pregunta de investigación de la revisión y objetivos han sido claros y explícitos; (b) criterios de inclusión apropiados para la pregunta de investigación; (c) diseño elaborador a priori; (d) estrategia de búsqueda apropiada; (e) especificación del rango de fechas; (f) relación de los idiomas incluidos y; (g) fuentes y tipología documental adecuada de búsqueda (ver detalles en la Tabla 1).

Por último, se recabó información sobre el tratamiento de los datos en cada una de las revisiones y metaanálisis para informar sobre los siguientes aspectos: (a) extractores de datos; (b) número de documentos primarios; (c) presencia de diagrama de flujo; (d) tratamiento de los registros excluidos; (e) instrumento de evaluación de calidad; (f) rango de evaluación de calidad; (g) características sustantivas de los estudios; (h) idoneidad de los métodos para combinar los resultados en los metaanálisis; e (i) conflicto de interés (ver Tabla 2).

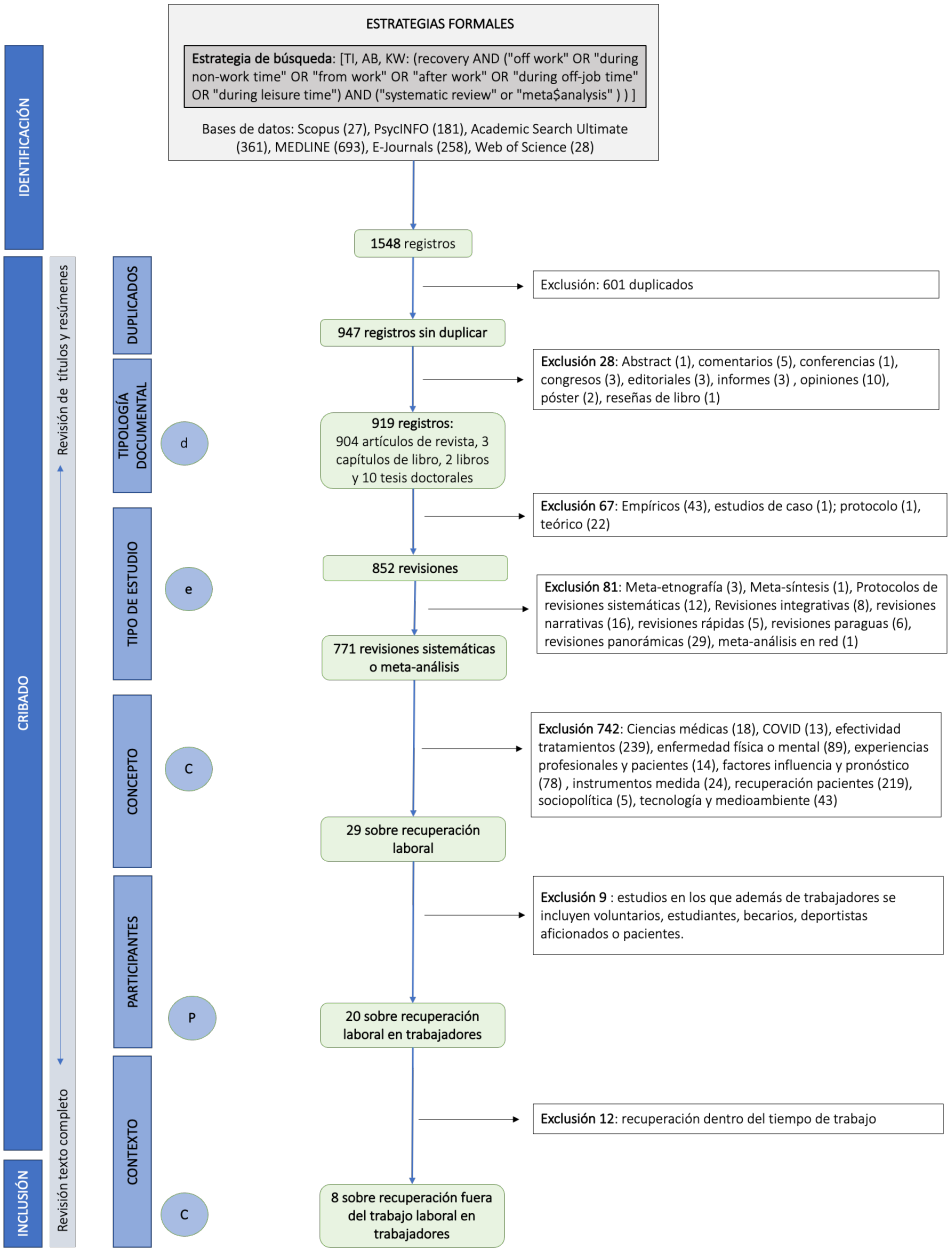
Resultados

Número de publicaciones y datos bibliométricos

En la Figura 1 se muestra el proceso completo realizado desde la búsqueda inicial de registros, la fase de la eliminación de duplicados, el cribado y la selección final de documentos. En el diagrama de flujo puede observarse el número de documentos obtenidos a lo largo de todas las

Figura 1

Diagrama de flujo



fases del proceso que finalizó con la identificación de ocho referencias que cumplieron los criterios de inclusión preestablecidos, lo que supone el 0.84 % de todos los ítems publicados hasta diciembre de 2021.

Tabla 3

Datos bibliométricos de las revisiones recuperadas

Autores	Nº de firmas	Países	Año	Revista	Tipo de revisión	Nº de citas
De Bloom et al.	6	Alemania	2009	J. of Occupational Health	MA	153
Merkus et al.	6	Noruega y Países Bajos	2015	BMC Public Health	RS	19
Steenstra et al.	8	Canadá	2017	J. of Occupational Rehabilitation	RS	107
Wendsche y Lohmann-Haislah	2	Alemania	2017	Frontiers in Psychology	MA	140
Bennett et al.	3	USA y Países Bajos	2018	Journal of Organizational Behavior	MA	173
Wiese et al.	3	USA	2018	J. of Positive Psychology	MA	96
Blanco-Encomienda et al.	3	España	2020	Social Indicators Research	MA	10
Carrillo-González et al.	3	Colombia	2021	Journal of Voice	RS-MA	5

Nota. MA: metaanálisis, RS: Revisión sistemática. Nº de citas: Número de citas en Web of Science.

Por lo que respecta a los datos bibliométricos de los documentos recuperados (ver Tabla 3), las publicaciones son posteriores a 2009 y participaron un total de 33 autores, lo que supone un índice de coautoría de 4.12. Salvo dos publicaciones de colaboración internacional (uno de Estados Unidos y Países Bajos y otro de Noruega y Países Bajos), el resto de los documentos estaban firmados por autores del mismo país (Alemania, Canadá, España, USA, Colombia). En cuanto a la tipología documental, todas las revisiones se publicaron en formato artículo de revista.

Evaluación de la calidad de las publicaciones

En la Tabla 4 se muestran los resultados de la evaluación de calidad de las revisiones y metaanálisis recuperados, específicamente en lo referido a aspectos metodológicos. Todos los documentos fueron valorados con puntuaciones que oscilan entre 7 y 15 puntos (sobre 20 puntos que supone la excelencia).

Por su parte, en la Tabla 5 puede verse de manera sintetizada la información referida a la calidad metodológica de los resultados de cada uno de los estudios seleccionados.

Análisis de contenido

El análisis de contenido de los trabajos seleccionados permitió organizarlos en diversas categorías que se correspondieron con diferentes aproximaciones, encuadres o perspectivas desde las que se ha investigado el proceso de recuperación, a saber: (a) el período temporal; (b) las características del trabajo; (c) las experiencias de recuperación; (d) las actividades de recuperación; (e) los procesos que impiden que la recuperación sea efectiva; y (f) las variables *proxy* al proceso de recuperación. Una variable proxy es una medida que, en sí misma no reviste interés, pero que posee utilidad porque permite recoger información relevante sobre otra variable que es el objeto de estudio, pero que no se puede medir u observar directamente. En este sentido, la variable proxy ha de mostrar una fuerte correlación, pero no necesariamente lineal o positiva, con la variable objeto de estudio (Trenkler y Stahlecker, 1996). A continuación, describiremos brevemente cada uno de los estudios en función de su encuadre en una u otra perspectiva.

Desde la perspectiva centrada en el período temporal, en el metaanálisis llevado a cabo por De Bloom et al. (2009) se revisaron los efectos positivos de las vacaciones sobre la salud y el bienestar. Los estudios recogidos en el metaanálisis mostraban diferentes actividades realizadas

Tabla 4

Resultados de la evaluación de calidad metodológica de las revisiones recuperadas

1º autor	De Bloom	Merkus	Steenstra	Wendsche	Bennett	Wiese	Blanco-Encomienda	Carrillo-Gonzalez
Objetivo explícito	No	Sí	Sí	Sí	Sí	Sí	Sí	Sí
Inclus/ Exclus	No	Sí	Sí	Sí	Sí	Sí	Sí	Sí
Diseño a priori	No	PRISMA	No	No	No	No	No	No
Búsqueda	KW, OPB	MeSh, KW, OPB, OPT, EEDs	KW, OPB, OPT, EEDs	KW, OPB, OPT	KW	KW, OPB, OPT	KW	KW, OPB, OPT
Fechas	1986-2006	Hasta 2014	Hasta 2012	1998- 2015	NI- 2015	Hasta 2016	2005-2015	2015-2018
Idioma	IN	IN	NI	IN	NI	NI	NI	IN, ES, PO
Recursos	2 FF (PI y ML)	3FF (PI, ML y EM)	3FF (PI, ML y EM), FI (rev.)	3FF (PI, PA y PM), FI (rev.)	4 FF (ABI, PI, ASC, PR), FI (act, ref, ei)	6FF (PI, BSP, HTC, HTI, ML y PA), FI (ref)	6FF (PI, PM, WoS, PR, PJ y SC), FI (ref)	1FF (PM) FI (Co, Sc y ref.)
Tipo doc.	A	A, L, CP, T	A	A	A, L, T, EI, act.	A	A	A
Revisores	3	1	2 y PD	2	3 y PD	SE	SE	2 y PD
Puntuación FINAL	7	15	13	11	12	9	7	14

Nota: **Objetivo explícito** (0 puntos: No; 1 punto: Sí); **Criterios de inclusión y exclusión** (0 puntos: No; 1 punto: Sí); **Diseño a priori** (0 puntos: No; 1 punto: Sí); **Estrategias de búsqueda: MeSh** (utilización de Tesauro), **KW** (Palabras clave), **OPB** (Operadores Booleanos), **OPT** (Operadores de Truncamiento), **EEDs** (Ecuaciones diferenciadas para cada base de datos, **NI**: No informan): 0 puntos: sin palabras clave; 1 punto: KW; 2 puntos: KW+OPB; 3 puntos: KW+OPB+OPT; 4 puntos: KW+OPB+OPT+EEDS; 1 punto extra por la utilización de tesauros; **Idioma**: **IN**: Inglés, **ES**: Español, **PO**: portugués: 1 punto: un idioma; 2 puntos; dos idiomas; 3 puntos: sin restricciones idiomáticas: **Recursos**: **Fuentes formales**: FF (ABI: ABI Inform, ASC: Academic Search Complet, BSP: Business Source Premier, EM: Embase, HTC: Hospitality and Tourism Complete, HTI: Hospitality and Tourism Index; ML: MedLine, PA: PsycArticles, PI: PsycINFO, PJ: Psychology Journals, PM: PubMed, PR: ProQuest, SC: Scopus, WoS: Web of Science), **Fuentes informales**: FI (act,: actas de congresos, Co: Cochrane, EI: estudios inéditos, rep.: repositorios, rev.: revisiones, ref.: referencias biboliográficas, Sc: Scielo): 1 punto: 2 FF; 3 puntos: FF+FI; **Tipología documental: A** (Artículo de revista); **L** (Libros), **CP** (Capítulo de libro); **Act** (Actas de congreso), **T** (Tesis doctorales): 1 punto: A; 2 puntos: A y L o CP; 3 puntos: A-L-CP y Act o T. **Evaluación Revisores: PD**: se ha establecido un procedimiento en caso de desacuerdos entre revisores; **SE**: Sin especificar los autores que participan en el proceso de revisión: 0 puntos: 1 revisor, 1 punto: 2 revisores; 2 puntos: más de dos revisores; 3 puntos: al menos dos revisores y PD.

durante el periodo vacacional (i.e., viajar, leer, hacer excursionismo, …) y percepciones ligadas al mismo (i.e., satisfacción con las vacaciones, desconexión del trabajo…).

Teniendo en cuenta las características del trabajo en el proceso de recuperación, la revisión de Merkus et al. (2015) desarrolló un modelo comprehensivo de horarios de trabajo no estandarizados y salud que reflejarían la diversidad de horarios posibles en la sociedad. Para su elaboración, los autores combinan los modelos de cambio de turno con los modelos de duración del tiempo de trabajo y de la recuperación, incluyendo de esta manera los efectos que ejercen los períodos de descanso sobre la salud. Ligados a los cambios de turno, identifican una serie de estresores como la alteración de los ritmos circadianos, la deprivación de sueño y la activación fisiológica incrementada o continuada. En esta revisión, la recuperación se concibe como un proceso fisiológico compensatorio, identificando varios mecanismos como el sueño reparador, la resincronización de los ritmos circadianos y la recuperación completa. De esta manera, el modelo pone de relieve la

Tabla 5

Hallazgos de la evaluación de la calidad del tratamiento de los resultados de las revisiones recuperadas

1º autor	De Bloom	Merkus	Steenstra	Wendsche	Bennett	Wiese	Blanco-Encomienda	Carrillo-Gonzalez
Doc. Primarios	7	33	22	86	54	12	19	11
Diagrama Flujo	Sí	Sí	Sí	Sí	No	Sí	Sí	Sí
Tratamiento Datos Excluidos	Sí	No	No	Sí	No	Sí	Sí	Sí
Instrumento Evaluación Calidad	No	No	Propio	No	No	No	Cochrane	QAT QSEPHPP
Combinación Resultados	No	NA	NA	MEA; I^2; ASP	MEA; ASP	MEA; Q; I^2; ASP	MEA; Q; I^2; ASP	MEA
Conflicto Interés	No	No	No. AF	No. AF	NI	No	NI	NI

Nota: **Instrumentos Evaluación Calidad: QAT QSEPHPP**: Quality Assessment Tool for Quantitative Studies Effective Public Health Practice Project; **Combinación Resultados Metaanálisis**: **NA**: No Aplica; **MEA**: Modelo Efectos Aleatorios; **ASP**: Análisis Sesgo Publicación; **Conflicto de Interés: AF**: Apoyo Financiero; **NI**: No Informa.

importancia de considerar tanto al tiempo dedicado a la actividad laboral, como al tiempo de no trabajo. En cuanto al primer aspecto, los autores incluyen algunas características relacionadas con el horario de trabajo como el momento del día, la duración del tiempo de trabajo, si los turnos son fijos o rotatorios, y la rapidez y dirección de la rotación del turno. Por su parte, será durante el tiempo de no trabajo cuando la persona podrá recuperarse y acomodarse para trabajar en los nuevos horarios requeridos. Finalmente, debe entenderse que diversos factores personales (e.g., la capacidad para adaptarse a los cambios de turno, la personalidad o las estrategias de afrontamiento) y situacionales (e.g., las condiciones de trabajo o la composición familiar), pueden modular los efectos que el trabajo y el descanso tienen en los procesos fisiológicos, y en último término en la salud.

La tercera aproximación se centró en la definición de experiencia de recuperación. Dentro de este encuadre situamos dos trabajos relacionados con la recuperación desde las percepciones que los propios sujetos tienen de este proceso. Por una parte, Bennett et al. (2018) llevaron a cabo un metaanálisis en el que analizaron los resultados y antecedentes de cuatro experiencias de recuperación: el distanciamiento psicológico, la relajación, las experiencias/actividades de desarrollo y el control. Los resultados más relevantes mostraron que las demandas que suponen un desafío se relacionan más negativamente con el distanciamiento psicológico, la relajación y las experiencias de recuperación de control que las demandas laborales obstaculizadoras. Además, los recursos laborales correlacionan positivamente con la relajación, las experiencias de desarrollo y el control. Los recursos laborales se vinculan positivamente con la relajación, las experiencias de desarrollo y las de control. La fatiga se relaciona negativamente con el distanciamiento psicológico, la relajación, las experiencias de desarrollo y el vigor se relacionan positivamente con todas las experiencias de recuperación. Además, sus hallazgos pusieron de manifiesto las relaciones existentes entre los antecedentes laborales y las experiencias de recuperación tras el trabajo.

Por otra parte, Wendsche y Lohmann-Haislah (2017) realizaron un metaanálisis que sintetiza los resultados referidos a una de las experiencias definidas por Sonnentag y Fritz (2015), esto es, el distanciamiento del trabajo (tanto físico como psicológico). Este concepto se ha operacionalizado como la ausencia de pensamientos relacionados con el trabajo durante el tiempo de no trabajo diario. No obstante, también destacan que algunas publicaciones se han acercado al concepto a través de la situación contraria; es decir, a través de la presencia de pensamientos relacionados con el trabajo durante los periodos de descanso. De esta manera, la rumiación psicológica, la reflexión sobre el trabajo o la meditación sobre la solución de problemas durante el tiempo de no trabajo estarían indicando que no se produce el distanciamiento. Los hallazgos

más destacables mostraron que el distanciamiento se relacionaba positivamente con la salud mental (menos agotamiento, más satisfacción con la vida, más bienestar, mejor sueño), mejor salud física (menos malestar físico), mejor bienestar como estado (menos fatiga y más afecto positivo), más recuperación y mayor desempeño (efecto bajo). Por el contrario, observaron correlaciones negativas con el desempeño contextual y la creatividad. Además, los autores encontraron que los pensamientos vinculados con el trabajo durante el tiempo de no trabajo podrían mejorar el bienestar y el desempeño. Sin embargo, la rumiación negativa o afectiva, podría dañar la recuperación porque prolonga la activación física y reduce la autoeficacia, el control y la capacidad atencional. En definitiva, los resultados de la investigación sugieren que el distanciamiento, como experiencia laboral de recuperación, estaría influido por características laborales y personales, y sería relevante en el desempeño de los empleados.

Desde la perspectiva de las actividades que hacen posible que se produzca este proceso, encuadramos las investigaciones de Wiese et al. (2018) y de Carrillo-González et al. (2021). En la revisión sistemática y metaanálisis sobre la actividad física en el tiempo libre y el bienestar subjetivo, Wiese et al. (2018) hallaron que la actividad física durante el tiempo libre es una actividad de recuperación porque facilita el distanciamiento psicológico del trabajo y mejora el bienestar subjetivo (aumenta el afecto positivo y la satisfacción con la vida, aunque no tiene repercusión sobre el afecto negativo).

Por su parte, el interés del estudio de Carrillo-González et al. (2021) se centró en el sueño como una actividad muy relevante en el proceso de recuperación Este grupo investigó la asociación de los desórdenes/enfermedades de la voz con la calidad del sueño y el estrés en profesores. Los docentes que dormían (actividad de recuperación) más de seis horas al día presentaban menos desórdenes en la voz. Por el contrario, los autores concluyen que un elevado estrés laboral y un descanso nocturno de menos de seis horas podría estar relacionado con una mayor probabilidad de presentar trastornos de la voz en los docentes. En definitiva, dormir constituiría una actividad de recuperación externa efectiva, siempre y cuando se superen las seis horas de sueño.

En lo que se refiere a la perspectiva de aquellos trabajos que han situado su foco de atención en los procesos que impiden que la recuperación sea efectiva, Blanco-Encomienda et al. (2020) revisaron cómo la rumiación/cavilación afecta al proceso de recuperación, en línea con el trabajo de Wendsche y Lohmann-Haislah (2017). Los resultados mostraron que, a pesar de que los pensamientos rumiativos están considerados útiles y adecuados, se han mostrado como estrategias ineficaces, en especial en entornos de trabajo tóxicos o insalubres. Estos hallazgos son de especial interés, sobre todo si se quieren promover entornos laborales más saludables y mejorar el bienestar de los empleados.

Finalmente, también se han analizado una serie de variables *proxy* al proceso de recuperación. Así, la investigación de Steenstra et al. (2017) se interesó en la vuelta al trabajo después de una baja laboral como una variable proximal al proceso de recuperación, de tal forma que el retorno a la actividad laboral se relacionaría con la recuperación de la dolencia. En concreto, los autores realizaron una revisión sistemática de factores que predicen el absentismo por lumbalgia después de seis semanas de baja laboral encontrando diferencias significativas entre determinadas variables en función de la duración de la dolencia. En la explicación de estos resultados, se reseñan tanto variables demográficas (e.g., género o edad), como de la propia gravedad de la situación (i.e., intensidad del dolor) o variables más personales (e.g., afrontamiento) o sociales (e.g., apoyo social). De especial interés para nuestro trabajo es el rol de las expectativas de recuperación en la vuelta al trabajo. Steenstra et al. (2017) indican la existencia de una relación positiva en la fase subaguda de la lumbalgia, mientras que no hay evidencia suficiente para los que vivencian una fase crónica. No obstante, indican que, pese a la falta de trabajos de alta calidad, parece que la influencia de las expectativas de recuperación en fases tardías de discapacidad laboral es importante.

Análisis de variables sustantivas

En la Tabla 6 se muestran las variables sustantivas que se han explorado en las revisiones incluidas sobre recuperación externa, así como el número de participantes y la procedencia de las muestras de los estudios primarios.

Tabla 6

Principales variables sustantivas analizadas y características de las muestras de las revisiones sobre recuperación laboral externa

1º autor	Nº. y procedencia de los participantes		Principales variables sustantivas			
	Número	*Países*	*Psicosociales*	*Laborales*	*Edad y género*	*Nacionalidad*
De Bloom	NI	DE, AT, US, IL, GB	Agotamiento, Quejas de salud y satisfacción vital.		No	No
Merkus	NI	NI	Problemas de salud.	Características del trabajo (horario de trabajo, duración y momento del día).	No	No
Steenstra	11593	CA, US, NO, NL	Dolor, Funcionalidad, Factores clínicos (diagnóstico, comorbilidad, impacto dolor, irradiación dolor, estado funcional) Salud Mental, Expectativas de recuperación, Catastrofización del Dolor, Evitación del miedo, Estatus Socioeconómico. Apoyo social.	Modificación de las tareas, Demandas laborales físicas, Satisfacción laboral, Reclamaciones	Sí	No
Wendsche	38124	CA, US, PNE	Neuroticismo, Nacionalidad, Valencia de los pensamientos, Salud mental, Salud física, Estado del bienestar, Motivación.	Dedicación excesiva al trabajo, Rendimiento Demandas laborales, Recursos laborales.	Sí	Sí
Bennett	26592	ES, NL, PNE	Fatiga, Vigor	Tipos de demandas, Recursos laborales, Experiencias de recuperación.	No	No
Wiese	4081	NI	Bienestar subjetivo (afecto positivo y afecto negativo), satisfacción vital.		No	No
Blanco-Encomienda	13686	DE, CA, CN, SI, US, FR, NO, NL, GR, CH	nº de pensamientos rumiativos, Estrategias de autorregulación, Bienestar.	Antigüedad laboral, Ambiente laboral.	Sí	No
Carrillo-Gonzalez	7401	BR, CY, KR, FI, IN, LV	Tipo estrés, tipo sueño, tipo trastorno voz.		No	No

Nota: Códigos de país de dos letras definidos según la ISO 3166-1 alpha2: Alemania (**DE**), Austria (**AT**), Brasil (**BR**), Canadá (**CA**), China (**CN**), Chipre (**CY**), Corea del Sur (**KR**), Eslovenia (**SI**), España (**ES**), Estados Unidos (**US**), Finlandia (**FI**), Francia (**FR**), India (**IN**), Israel (**IL**), Letonia (**LV**), Noruega, (**NO**) Países Bajos (**NL**), Reino Unido (**GB**), Suiza (**CH**); No Informan (NI); Países No Especificados (**PNE**).

En lo que se refiere a las características sociodemográficas, no todas las publicaciones tienen en consideración la posible influencia de variables socioculturales. Así, a pesar de tener acceso a muestras de diferentes nacionalidades –e.g., diversos países europeos, EEUU y Canadá en Wendsche y Lohmann-Haislah (2017)– o –Finlandia, Chipre, Letonia, Brasil, India y Corea del Sur en Carrillo-

González et al. (2021)–, la nacionalidad no se tiene en cuenta como una variable objeto de análisis. Con respecto al género, sólo el trabajo de Steenstra et al. (2017) revela la existencia de diferencias entre hombres y mujeres a la hora de reincorporase al trabajo en empleados aquejados de dolor lumbar (los hombres tardan más en incorporarse al trabajo).

Discusión

Este trabajo se planteó con la finalidad de presentar una visión global de las revisiones sistemáticas cualitativas y cuantitativas sobre la recuperación de los empleados fuera del trabajo. Los resultados encontrados en la revisión paraguas nos han permitido realizar algunas observaciones y extraer conclusiones que consideramos podrían ser de interés para el campo de la Psicología del Trabajo y de las Organizaciones.

En primer lugar, desde un punto de vista cuantitativo, de las 771 revisiones sistemáticas o metaanálisis publicadas sobre recuperación, tan solo 29 se han centrado en la recuperación laboral y de ellas, tan solo ocho tratan sobre la recuperación laboral externa. No obstante, se puede señalar que se han tenido que excluir aquellos documentos que abordan patologías médicas o problemas psicológicos en los que los participantes eran "pacientes" y en los que no se especificaba el origen o causa de sus dolencias, de modo que se desconoce si dichos problemas estaban o no relacionados con el ámbito laboral. En este sentido, solamente la revisión de Steenstra et al. (2017) ha sistematizado publicaciones sobre la vuelta al trabajo después de una baja laboral.

En segundo lugar, desde una perspectiva cualitativa, la recuperación se puede considerar como un proceso que abarca desde la aparición de las consecuencias derivadas del trabajo hasta su desaparición o restablecimiento (i.e., la consecución del «estado» de recuperación). Como se ha visto, el análisis de contenido ha mostrado distintos enfoques o puntos de vista en las revisiones seleccionadas, tales como el período temporal, las características del trabajo, las propias experiencias (percepciones) de recuperación, las actividades de recuperación, los procesos que impiden que la recuperación sea efectiva y otras variables que podrían considerarse proximales.

En relación con el período temporal, algunas de las revisiones analizadas incluyen estudios primarios que se centran en la recuperación diaria (habitualmente por la tarde o noche) si bien también se han estudiado períodos de descanso más prolongados, como las vacaciones. En este sentido, se ha visto que las vacaciones parecen ejercer (o ejercen) efectos positivos sobre la salud y el bienestar, tal y como indican De Bloom et al. (2009). Sin embargo, tales efectos desaparecen poco después de la reanudación de la actividad laboral. En suma, durante este período de descanso parecen aminorarse el agotamiento emocional, las quejas de salud y aumentar la satisfacción con la vida, aunque sus efectos sobre la salud y el bienestar se disipan entre la segunda y la cuarta semana postvacacional. Así pues, las vacaciones suponen un escenario de tiempo libre que ofrece importantes oportunidades para que se produzca la recuperación, bien a través de mecanismos pasivos por alivio de las demandas en el trabajo, bien por la participación activa en actividades consideradas como placenteras. No obstante, son escasas las investigaciones que han abordado el efecto de la duración de las vacaciones sobre la recuperación; sin embargo, los hallazgos no son concluyentes probablemente debido a diversas limitaciones metodológicas (e.g., Etzion, 2003; Strauss-Blasche et al., 2000). Por tanto, son necesarios estudios con una mayor robustez metodológica que permitan evaluar el efecto de las vacaciones mediante medidas postvacacionales más adecuadas (De Bloom et al., 2010).

En tercer lugar, y en lo que se refiere a las variables específicas del proceso de recuperación (como las actividades y las experiencias), el sueño reparador y la actividad física parecen desempeñar un rol significativo en el restablecimiento después del trabajo (Carrillo-González et al., 2021). Del mismo modo, las distintas experiencias de recuperación, en especial el distanciamiento psicológico, son fundamentales en el proceso exitoso de recuperación (Wendsche y Lohmann-Haislah, 2017). Estas experiencias se han reconocido en otros trabajos (e.g., De Bloom et al. (2009) que aportan información sobre las distintas actividades y percepciones que las personas vivencian durante sus procesos de recuperación. También se han explorado

variables atendiendo a un plano temporal como en el trabajo de Merkus et al. (2015) en el que se presta atención a la repercusión del cambio horario sobre el proceso de recuperación. Un último grupo de variables estarían ligadas al resultado del proceso de recuperación, esto es, al hecho de estar recuperado. Entre ellas, encontramos medidas como satisfacción vital y el bienestar subjetivo –afecto positivo– (Wiese et al., 2018), el bienestar del empleado (Blanco-Encomienda et al. (2020) o el número de quejas de salud en De Bloom et al. (2009).

Considerando las variables analizadas, ha resultado llamativo que los trabajos revisados presten escasa atención a las posibles diferencias culturales que podrían afectar al proceso de recuperación. Aunque como se ha visto se han publicado trabajos con muestras internacionales, se echan en falta, por ejemplo, análisis sobre posibles diferencias en cuanto al valor recuperador de ciertas actividades en función del contexto social y cultural en el que se producen (e.g., actividades en culturas individualistas vs. colectivistas). Así y todo, en el trabajo de Wendsche y Lohmann-Haislah (2017) se considera la nacionalidad de los empleados como variable de interés que puede revelar influencias culturales si bien los participantes proceden de una muestra homogénea mayoritariamente europea. En este sentido, la disponibilidad de muestras internacionales para el análisis de los resultados del proceso de recuperación, incluyendo empleados de varios continentes (e.g., Blanco-Encomienda et al., 2020; Carrillo-González et al., 2021), ofrece la oportunidad de explorar diferencias entre culturas individualistas y colectivistas. Así, las culturas colectivistas están conformadas por grupos de personas con fuertes vínculos entre ellas, de forma que el desarrollo se encuentra muy unido al de los demás miembros, así como a las normas y deberes que emanen del mismo. En el polo opuesto, las culturas individualistas priorizan el desarrollo individual, sus necesidades, preferencias y derechos; además, construyen su autoestima a través del logro de sus objetivos personales (Triandis, 1995).

Como hemos observado en la revisión, muchos de los constructos evaluados se han conceptualizado y desarrollado en un occidente predominantemente individualista, donde vive una cuarta parte de la población mundial, pero se han vinculado a un oriente colectivista (i.e. China e India) donde vive más de un tercio de los habitantes del planeta. Así pues, se hace necesario reconsiderar si las variables que se analizan miden los mismos componentes de cada constructo y si los resultados son comparables entre sí. Igualmente, y dentro de cada país, ciertos grupos comparten características colectivistas o individualistas, como el carácter colectivo de los hispanos en Estados Unidos frente a los valores protestantes e individualistas de la mayoría caucásica; la individualidad de la moderna cultura urbana frente al más marcado y tradicional colectivismo de la cultura rural y agraria; el individualismo del estatus socioeconómico alto frente al colectivismo de las clases medias y bajas; etc. (Singelis et al., 1995). Por tanto, parece innegable que existen diferentes puntos de vista, y por extensión, diversas variables que no se pueden aglutinar en una visión única y universal, y que probablemente incidan en cómo se abordan y experimentan los procesos de recuperación laboral. En este sentido, consideramos interesante que en futuras investigaciones se tenga en cuenta la necesidad de adaptar las intervenciones teniendo en cuenta las diferencias culturales en cuanto a la recuperación de los empleados.

En cuarto lugar, en las revisiones analizadas se contemplan una serie de variables que, pese a su posible interés a la hora de entender los procesos de recuperación del trabajo, no han sido incluidas en los modelos predictivos. De esta manera, la edad, el género o las diferencias socioeconómicas podrían aportar explicaciones valiosas al éxito o a las dificultades en la recuperación. En lo que se refiere a este tipo de variables socioculturales –algunos estudios incluyen datos sobre el género de los participantes, pero no analizan la influencia de esta variable en los resultados (e.g., Carrillo-González et al., 2021). En otros trabajos, además, ni siquiera se informa de las características sociodemográficas de los empleados (e.g., Bennett et al., 2018). Sin embargo, conviene señalar que en el estudio de Blanco-Encomienda et al. (2020) se plantean varias hipótesis relacionadas con el posible papel moderador que la edad y el género pueden ejercer sobre la recuperación, confirmándose la hipótesis sobre el género y la reincorporación al trabajo en la fase crónica del dolor lumbar. En relación con la edad, Blanco-Encomienda et al. (2020) también exploraron el papel de la antigüedad en el puesto de trabajo, encontrando que la experticia favorece el aprendi-

zaje de nuevas estrategias frente a las demandas del entorno, incluidas las situaciones estresantes. Estos resultados, cobran especial importancia para rechazar la tendencia errónea de considerar que las personas mayores se estresan más que los jóvenes y no son capaces de asumir un alto nivel de demandas laborales (ver Besen et al., 2015).

En definitiva, la edad, el género y la nacionalidad de los participantes parecen influir en el proceso de recuperación, si bien son escasas las revisiones que abordan estas variables. Del mismo modo, podemos señalar que otros factores socioculturales y laborales no han sido explorados como, por ejemplo, la clase social y la religión profesada, o las normas sociales, los roles, las creencias y los valores personales, y podrían ser relevantes en el modo que tienen las personas de entender y experimentar el trabajo, la recuperación laboral y la salud autopercibida (Betancourt y Lopez, 1993).

De igual manera, a pesar de la extensa bibliografía sobre las experiencias de recuperación en determinados ámbitos como en trabajadores sanitarios (e.g., Gillet et al., 2020; Mohd Fauzi et al., 2020), maestros (e.g., Kinnunen et al., 2019; Sonnentag y Kruel, 2006), bomberos (e.g., Sawhney et al., 2018), etc., resultaría interesante llevar a cabo revisiones sistemáticas que exploren tanto el tipo de estrategias que resultan más adecuadas para evitar el agotamiento emocional y otras consecuencias sobre la salud mental en los distintos sectores profesionales, como los factores protectores que mejoran la recuperación laboral.

En conclusión podemos afirmar que, a pesar de que la concepción procesual conlleva concebir a la recuperación fuera del trabajo como un constructo multidimensional (e.g., van den Bogaard et al., 2016) las investigaciones revisadas en este trabajo tienden a adoptar una visión particular y restrictiva. A este respecto, si bien cada vez se le otorga mayor importancia a la salud mental y a su afectación por el trabajo, hemos observado que otras consecuencias que el trabajo tiene en las personas parece haberse dejado un poco de lado en la literatura examinada. De este modo, algunas enfermedades relacionadas con el entorno laboral, ya sean físicas o mentales, podrían estudiarse teniendo muy presente el concepto de recuperación. Aunque únicamente uno de los trabajos analizados se aproxima a la recuperación desde esta perspectiva (e.g., Steenstra et al., 2017), es posible que otros investigadores puedan compartir la misma visión, a pesar de no prestar atención a la recuperación externa, el eje vertebrador de la investigación aquí presentada.

Esta contribución no pretende ser una crítica a todos los desarrollos que se han realizado desde la comunidad científica en pos de la salud mental de los trabajadores. De hecho, se reconoce a través de esta investigación el impacto de avances como el de Sonnentag y Fritz (2015). A partir de su definición de experiencias de recuperación ha surgido un gran interés en este campo de investigación, resaltando aspectos claves para comprender este proceso: realizar una actividad de recuperación no tiene la capacidad inherente de recuperar; la persona debe percibir que se produce dicha recuperación, y aspectos tanto personales como contextuales permitirán que esto sea así. Por tanto, este comentario es más bien una invitación a comprender el proceso de recuperación como un concepto más abierto y que todavía está por definir.

Finalmente, ninguno de los trabajos analizados hace mención especial a la pandemia originada por la COVID-19. A este respecto comenzábamos este trabajo haciendo referencia al rol que el trabajo tiene en la vida humana y a las condiciones ambientales en las que este se desarrolla. La realidad laboral ha variado mucho en los últimos años e inevitablemente también la recuperación del trabajo. Así, por ejemplo, el auge del teletrabajo lleva aparejados una serie de inconvenientes, como la dificultad de numerosas personas para desconectar del trabajo de manera efectiva, hecho posiblemente favorecido porque el trabajo y la vida familiar comparten espacios y tiempos, facilitándose así la contaminación entre ambas realidades. Es por ello que, últimamente parece haber una mayor concienciación sobre la necesidad de adaptación a diferentes contextos y que esto se vea reflejado en un adecuado desarrollo normativo que garantice el derecho a la desconexión del entorno laboral (véase Pérez Campos, 2021). Por tanto, nos parecen especialmente interesantes aquellas investigaciones enfocadas en los procesos de recuperación que las personas realizan fuera de su tiempo laboral, y aquellas que se refieren a los cambios producidos durante el tiempo de trabajo (e.g., proliferación de espacios de coworking) y cómo estos cambios de paradigma afectan a la recuperación, tanto interna como externa.

La presente síntesis de los resultados de las revisiones sistemáticas realizadas hasta la fecha puede contribuir al diseño de programas de intervención que ayuden a los empleados a reconocer sus necesidades y regular sus experiencias de recuperación a fin de reducir sus sentimientos de fatiga e incrementar la motivación laboral y el rendimiento en las tareas, brindando soluciones basadas en la evidencia a los problemas laborales reales.

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THE ASSOCIATION OF GRIEF WITH MENTAL HEALTH AND THE ROLE OF LONELINESS DURING THE COVID-19 PANDEMIC

LA INFLUENCIA DEL DUELO EN LA SALUD MENTAL DURANTE LA PANDEMIA DE COVID-19: EL PAPEL DE LA SOLEDAD

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Abstract

Previous research found that bereavement is associated with several pathological responses affecting both physical and mental health. During the COVID-19 pandemic, and the socially disruptive measures implemented, losses of close contacts have occurred under exceptional circumstances, and it is reasonable to expect that many bereaved people would be unable to overcome their loss adaptively, resulting in dysfunctional grief leading to mental health alterations. Loneliness, which has increased during the pandemic, has been identified as a

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significant risk factor for mental health that is common when people grieve. In this study, we aimed to gauge the effects of the process of bereavement on mental health in the context of the COVID-19 pandemic and to explore the mediating role of loneliness on the relationship between grief and mental health alterations by surveying a representative sample of 2000 Spanish adults interviewed by phone during the pandemic (February-March 2021). Logistic regressions were performed to examine the effects of grief levels on depression, anxiety, panic attacks, post-traumatic stress disorder, substance abuse, and suicidal thoughts and behaviors. Our results confirmed that how the loss of a loved one is processed is associated with our mental health. Dysfunctional grief was significantly linked to all mental health conditions, particularly depression (OR = 14.28) and anxiety (OR = 11.61). As predicted, loneliness accounted for a substantial percentage (8-30 %) of the impact of dysfunctional grief on mental health outcomes. Our results suggest that in dealing with the mental health consequences of the COVID-19 pandemic, professionals should take into consideration the role of dysfunctional grief and loneliness as targets for assessment and intervention.

Keywords: COVID-19 pandemic; bereavement; dysfunctional grief; depression; anxiety; loneliness.

Resumen

Diversas investigaciones muestran que el proceso de duelo se asocia con una variedad de respuestas patológicas tanto a nivel mental como físico. Durante la pandemia de COVID-19 y las medidas restrictivas implementadas, se han producido pérdidas de personas cercanas en condiciones excepcionales. Es razonable pensar que muchas de las personas que estan en proceso de duelo no puedan superar su pérdida de una forma adaptativa, y que esto conlleve dificultades para procesar el duelo conducentes a alteraciones de su salud mental. La soledad, que se incrementó durante la pandemia, se ha identificado com un factor de riesgo significativo para la salud mental que resulta común para las personas que están en duelo. En este estudio, nos propusimos estimar los efectos del proceso de duelo en la salud mental en el contexto de la pandemia de COVID-19 y explorar el posible papel mediador de la soledad en la relación entre duelo y salud mental. Para ello, se realizaron encuestas en una muestra española representativa de 2000 personas adultas entrevistadas por teléfono durante la pandemia (febrero-marzo de 2021). Con estos datos, se realizaron regresiones logísticas para examinar los efectos del duelo en la depresión, ansiedad, ataques de pánico, estrés postraumático, abuso de substancias, y pensamientos y conductas suicidas. Nuestros resultados confirmaron que la forma en la que se procesa la pérdida de un ser querido influye en la salud mental de las personas. Las dificultades para elaborar el duelo resultaron asociadas de forma más significativa a la depresión (OR = 14.28) y ansiedad (OR = 11.61). Según se había previsto, la soledad explicó un porcentaje substancial (8-30 %) del impacto del duelo disfuncional en los indicadores de salud mental. Nuestros resultados sugieren que, a la hora de abordar las consecuencias en la salud mental de la pandemia de COVID-19, los profesionales deberían considerar el papel del duelo y la soledad como objetos de evaluación y tratamiento.

Palabras clave: pandemia de COVID-19; duelo disfuncional; luto; depresión; ansiedad; soledad.

Introduction

The coronavirus (SARS-CoV-2) that emerged from Wuhan, China, at the end of 2019 quickly spread worldwide, becoming a global pandemic and a public health emergency within 4 months (Lee & Neimeyer, 2020). After about three years, there have been more than 700 million cases diagnosed and the coronavirus disease (COVID-19) has claimed nearly seven million lives worldwide (WHO, 2022). There has also been an increase in death rates from other causes during the pandemic, sometimes attributed to treatment for other life-threatening diseases being postponed or health care visits being avoided to prevent infection (Stroebe & Schut, 2021). As an illustration, during the week of April 5, 2020, indicators in Spain reached an excess mortality of 158 % (Ritchie et al., 2020), increasing the number of people suffering from grief. Given this high death tolls related to the pandemic, it is

Figure 1.

Reactions to bereavement

Affective Depression, despair, dejection, distress Anxiety, fears, dreads Guilt, self-blame, self-accusation Anger, hostility, irritability Anhedonia (loss of pleasure) Loneliness Yearning, longing, pining Shock, numbness	**Cognitive** Preoccupation with thoughts of deceased, intrusive ruminations Sense of presence of deceased Suppression, denial Lowered self-esteem Self-reproach Helplessness, hopelessness Suicidal ideation Sense of unreality Memory, concentration difficulties
Behavioral Agitation, tenseness, restlessness Inhibition, physical inactivity Overactivity Searching Weeping, sobbing, crying Social withdrawal	**Physiological–somatic** Loss of appetite Sleep disturbances Energy loss, exhaustion, fatigue Somatic complaints Physical complaints like deceased
Immunological and endocrine changes High susceptibility to illness, disease, mortality	

Note. Adapted from Stroebe et al. (2007)

unsurprising that bereavement has deeply affected survivors, relatives, and friends.

Daily statistics tend to focus on the deceased, with less attention paid to the bereaved. As reported by Lee and Neimeyer (2020), the dearth of scientific attention on this topic during this pandemic is surprising given that the death of a loved one is one of the most stressful life events (Hobson et al., 1998; Holmes & Rahe, 1967). What is more, bereavement is associated with an increased risk of mortality, including by suicide. People who have been bereaved are more likely to have physical health problems, particularly if they are recently bereaved, having higher rates of disability, medication use, and hospitalization than their non-bereaved peers (Stroebe et al., 2007). Bereavement may spark a number of pathological responses: leading to new onset or worsening of general medical conditions; precipitating, intensifying, or prolonging major depressive disorders; triggering mania, post-traumatic stress disorder, or anxiety disorders; and exacerbating problems with substance use and abuse (Keyes et al., 2014; Zisook et al., 2014). Additionally, it is associated with an array of psychological symptoms (Stroebe et al., 2008; Parkes, 1996), as shown in Figure 1, that can complicate grief and interfere with the natural healing process (Shear & Skritskaya, 2012).

Grieving is a natural response to the loss of a loved one and is experienced repeatedly by most individuals during their lifetimes. For most bereaved, although the loss is distressing and disruptive, they ultimately come to terms with it over time (Zisook et al., 2014). By contrast, a group of bereaved (10 % after natural death and 50% after death due to unnatural causes) experience intense grief that persists longer than what would normally be expected (Djelantik et al., 2020), characterized by an enduring and overwhelming sense of yearning or preoccupation with the deceased and significant emotional suffering that causes functional impairment in daily life. This condition has been termed prolonged grief disorder (Prigerson et al., 2009; WHO, 2018), persistent complex bereavement disorder (APA, 2013), or complicated grief (Shear et al., 2011). Although

the criteria for each of these diagnostic labels vary in specific details (e.g., time after the loss) (Parro-Jiménez et al., 2021; Simon et al., 2020), it is expected that those who meet any diagnosis of dysfunctional bereavement will experience more intense and persistent sequelae.

The global COVID-19 pandemic is predicted to have a major impact on the experience of death, dying, and bereavement (Mayland et al., 2020). Research has established numerous evidence-based risk factors for clinical impairment due to prolonged and complicated grief, such as social isolation, unexpected death, challenges to a secure attachment relationship to the deceased, spiritual struggles during bereavement, inability to make sense of the loss, socioeconomic and educational disadvantage, and a lack of institutional and informational support in care facilities (Neimeyer & Burke, 2017). Significantly, each of these factors may be considered characteristic of the circumstances in which pandemic deaths have occurred.

Protective measures against contagion have required not only physical distancing but also emotional distancing. Some people have been denied the right to meet relatives who were hospitalized or staying in residential/care homes, and/or were unable to say goodbye before death. Some even went through the mourning process without a body. Many families were unable to hold funerals and burials or had to do it with a significant delay or with the limited-capacity gatherings permitted, making it difficult to achieve emotional closure. Almost every in-person social interaction was forbidden, and many people had to remain isolated or away from their social network, without the emotional support needed in situations of high vulnerability and hardship.

It is reasonable to expect that a considerable number of people will be unable to overcome loss adaptively during the pandemic. Consequently, they can develop psychopathological reactions and pain, including dysfunctional grief. Some authors have stated that researchers studying mental health in relation to the pandemic should include grief as a potential contributory factor (Bertuccio & Runion, 2020). Others propose that grieving has become another dimension in the present social context (Fernández & González-González, 2020). Breen et al. (2021) suggests that the predicted worldwide tsunami of grief from this pandemic is likely to be associated with significant functional impairment, particularly for the bereaved who report symptoms of separation distress, dysfunctional grief, and post-traumatic stress.

When identifying factors that contributed to mental health during the lockdown for COVID-19 in Spain, Pinedo et al. (2021) concluded that loneliness was a particularly important risk factor. Several studies found a negative relationship between loneliness and both depression and anxiety during the lockdown (e.g., Palgi et al, 2020; Robb et al., 2020; van Tilburg et al., 2021). Loneliness is a major indicator of poor social well-being and it is expected when people grieve the loss of someone to whom they were closely attached. The classic study by Lund (1989) showed that most widowed persons mentioned loneliness as the biggest challenge to coping on a daily basis. The review by Vedder et al. (2021) supports the idea that loneliness has amplified bereavement during the COVID-19 pandemic. There is substantial evidence that loneliness plays a key role in adaptation to bereavement (e.g., Fried et al., 2015).

Based on literature stating the important impact of bereavement on behavioral (e.g., agitation, fatigue, and withdrawal), psychological (e.g., depression, loneliness, and suicidal ideation), and physical health (e.g., increased risks of heart attacks, illnesses, and mortality) (Stroebe et al., 2007), we aimed to gauge the effects of bereavement on mental health in the context of the COVID-19 pandemic. Given the importance of loneliness and given that this highly unpleasant state was often extended during the pandemic (Hoffart et al., 2020; Li & Wang, 2020), we also considered it important to explore its potential mediating role on the link between bereavement and mental health. We hypothesized that having lost a loved one during the COVID-19 pandemic, together with how this loss was processed (high levels of pandemic grief) is associated with the indicators of major depressive disorder (MDD), generalized anxiety disorder (GAD), post-traumatic stress disorder (PTSD), substance use disorder (SUD), panic attacks, and/or suicidal thoughts and behaviors (STB). Additionally, we hypothesized that loneliness could (partially) explain the observed relationships.

Method

Study Design

This is a cross-sectional study, and data come from the first follow-up assessment (February – March 2021) of participants from the MIND/COVID general population study (www.mindcovid.org). At baseline (June 2020), we obtained a nationally representative sample from the adult general population in Spain by simple random sampling after the first wave of the COVID-19 pandemic. Non-institutionalized Spanish adults (aged ≥ 18years) with access to a landline or mobile telephone who had no Spanish language barriers were eligible to participate. The sample was drawn through a dual-frame random digit dialing telephone survey, including both landlines and mobiles.

Participants

Participants of the baseline survey (N = 3,500) were invited to respond to a follow-up survey, of which 2,000 responded (RR = 57.14 %) and were subjects for this study.

Measurements

The primary measures were for indicators of MDD, GAD, PTSD, SUD, panic attacks, STB, and pandemic grief, with loneliness included as a secondary measure. We included sociodemographic and other covariates as well.

Major Depressive Disorder

Symptoms of depression were measured using the Spanish version of the 8-item Patient Health Questionnaire Depression Scale (PHQ-8) (Diez-Quevedo et al., 2001). The PHQ-8 total score ranges from 0 to 24, with a cut-off of ≥10 points indicating current MDD. Respondents were asked to rate how often they had been bothered by each item over the last 2 weeks, using a 4-point Likert-type scale (0 = not at all, 1 = several days, 2 = more than half the days, 3 = nearly every day). This tool shows high reliability ($\alpha > 0.8$) and good diagnostic accuracy (AUC > 0.90) for MDD (Wu et al., 2020).

Generalized Anxiety Disorder

The Spanish version of the 7-item Generalized Anxiety Disorder Scale (GAD-7) was used to measure anxiety symptoms (García-Campayo et al., 2009). The total score ranges from 0 to 21, and a cut-off of 10 indicates current GAD. Respondents were asked to rate the frequency of anxiety symptoms in the last 2 weeks on a 4-point Likert-type scale (0 = not at all, 1 = several days, 2 = more than half the days, 3 = nearly every day). This tool has a good performance to detect anxiety (AUC > 0.80; Newman et al., 2002).

Post-Traumatic Stress Disorder

The 4-item version of the PTSD checklist for DSM-5 (PCL-5) was used. This generates diagnoses that parallel those of the full PCL-5, which is a 20-item self-report measure developed by Weathers et al. (2013), making it suitable for screening (AUC > 0.90; Zuromski et al., 2019). Respondents were asked to rate how bothered they had been by each item in the past month, using a 5-point Likert-type scale (0 = Not at all, 1 = A little bit, 2 = Moderately, 3 = Quite a bit and 4 = Extremely). Items were summed to provide a total severity score (0 – 16). The Spanish version of the questionnaire was used with a cut-off of 7 indicating current PTSD (Resick et al., 2020).

Substance Use Disorder

Evaluated with the 4-item CAGE questionnaire (Cutting down, Annoyance with criticism, Guilty feeling, and Eye-openers) adapted to include drugs (CAGE-AID). This tool has proved useful in helping to diagnose alcoholism (Díez Martínez et al., 1991; Hinkin et al., 2001; Saitz et al., 1999) and SUD (López-Maya et al., 2012). Item responses on the CAGE-AID questionnaire are scored 0 (no) and 1 (yes), with higher scores indicating a worse alcohol and/or drug problem. The questionnaire was adapted into Spanish for the MIND/COVID wider study according to the World Health Organization (WHO) translation guidelines for assessment instruments (Üstun et al, 2005). This version showed acceptable internal consistency ($\alpha = 0.67$). A cut-

off points of 1 indicated current SUD (Mdege & Lang, 2011).

Panic Attacks

The number of panic attacks in the 30 days prior to interview was assessed with an item from the World Mental Health-International College Student (WMHICS) initiative (Blasco et al., 2016; Kessler et al., 2013). A dichotomous variable was created to indicate the presence (or not) of panic attacks.

Suicidal Thoughts and Behaviors

Assessed with a modified version of the Columbia Suicide Severity Rating Scale (C-SSRS; Posner et al., 2011), which has been adapted into Spanish (García-Nieto et al., 2013) and has shown a good ability to discriminate suicidal behavior (Ballester et al., 2019). It includes passive and active suicidal ideation as well as plans and attempts. An affirmative response to any of the six items on the scale was considered to indicate the presence of these thoughts and behaviors.

Pandemic Grief

This was evaluated with the Pandemic Grief Scale (PGS), a 5-item scale that measures grief during the COVID-19 pandemic across all demographic groups. It effectively discriminates between people with and without dysfunctional grief, using an optimized cut-off score of ≥ 7 (AUC > 0.8), and shows high reliability (α = 0.83; Lee & Neimeyer, 2020). Using a 4-point scale, subjects rated how often in the last 2 weeks they experienced each symptom (0 = Not at all, 1 = Several days, 2 = More than half the days, 3 = Nearly every day). This scale was adapted into Spanish by our team using the recommended process for transcultural adaptation. This involved translation into Spanish by two Spanish-speaking translators, consensus translation by a third person, back translation by an English-speaking translator to identify problems, and final consensus translation and assessment of equivalence by the research team having the approval of the second author of the original English scale who is competent in Spanish. The internal consistency of the instrument was good in our sample (α = 0.72). PGS scores of 0–1 was categorized as "low" grief; scores of 2–6 as "moderate"; and scores of 7–15 as "dysfunctional." Only those who reported having lost someone close during the pandemic completed the PGS.

Loneliness

We assessed loneliness with the 3-item University of California, Los Angeles, Loneliness Scale (UCLA-LS) which has satisfactory reliability and both concurrent and discriminant validity (Hughes et al., 2004). Responses to the three items are scored 1–3, giving total sum score of 3–9. Higher scores indicate greater loneliness. The scale was adapted into Spanish for this study, following the World Health Organization (WHO) translation guidelines for assessment instruments (Üstun et al, 2005), and the final instrument had good internal consistency (α = 0.71).

Covariates

Sociodemographic covariates included age (18–34, 35–49, 50–64, 65+ years), sex (male/female), marital status (never married, married or cohabiting, separated/divorced, or widowed), and educational level (primary, secondary low, secondary high, and tertiary). The existence of pre-pandemic lifetime mental disorders was assessed using a checklist based on the Composite International Diagnostic Interview (CIDI; Kessler & Ustün 2004) that screens for self-reported lifetime depressive, bipolar, anxiety, panic attacks, SUD, and "other" mental disorders. We assessed COVID-19 infection status by asking if the respondent had been hospitalized for COVID-19 infection and/or had a positive COVID-19 test or medical diagnosis not requiring hospitalization.

The Oslo Social Support Scale (OSSS-3) was used to assess social support. It contains three items ranging from 1 to 4 or 5, with the total sum score in the range of 3–14. Scores of 3–8, 9–11, and 12–14 were categorized as "poor," "moderate," and "strong," respectively (Kocalevent et al., 2018). This scale was also adapted into Spanish for the MIND/COVID wider study according to the World Health Organization (WHO) recommendations (Üstun et al, 2005), and the internal consistency in our sample was limited (α = 0.50).

Procedure

Data Collection

First, a sample of mobile telephone numbers was generated through an automated system. Subsequently, landline numbers were selected from an internal database developed and maintained by the survey company to ensure that all geographical areas in Spain were represented in appropriate proportions. Up to seven calls were attempted to each number at different times of the day. The distribution of the interviews was planned according to quotas proportional to the Spanish population in terms of age, sex, and region. Professional interviewers from the survey company IPSOS carried out computer-assisted telephone interviews. Further details about sampling in the MIND/COVID project are reported elsewhere (Mortier et al., 2021).

Parc Sanitari Sant Joan de Déu (PIC 86-20) and Parc de Salut Mar (protocol 2020/9203/I) clinical research ethics committees granted ethical approval. After fully informing eligible participants about the study objectives and procedures, we sought oral consent for interview. Participants received no financial compensation.

Data Analysis Strategy

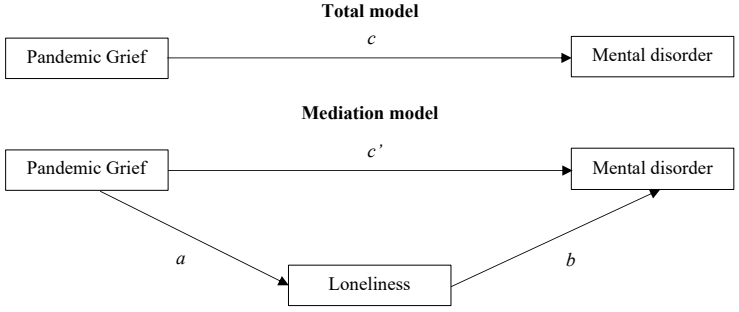
To compensate for non-responders, post-stratification weights data were applied to restore the distribution to that of the adult general population of Spain by age, sex, and region. Descriptive analyses are provided for the independent variable (i.e., pandemic grief), and the control variables (i.e., sex, age, marital status, education, social support, COVID-19 infection status, and pre-pandemic mental disorder) as weighted proportions and unweighted frequencies.

To examine the association of pandemic grief with mental disorders, several logistic regression models were constructed. We constructed unadjusted and adjusted models for each outcome: unadjusted models tested the associations of outcomes with variable of interest without control variables, whereas adjusted models included all control variables. Odds ratio and 95% confidence intervals are reported for all models. To clarify these effects, we then calculated the estimated probabilities for MDD, GAD, PTSD, SUD, panic attacks, and STB depending on pandemic grief using the margins command (Williams, 2012), based on the adjusted logistic regression models. Control variables were centered according to the real proportion.

To assess the mediating role of loneliness on the associations between pandemic grief and mental disorders (Figure 2), we performed mediational analysis using the *khb* command (Breen et al. 2013; Karlson & Holm 2011; Karlson et al. 2012). The independent variable (pandemic grief) was included as a continuous variable given that the detected relationships were linear. This method enables to

Figure 2.

Total and mediation models



Note. A mediation model decomposes the total effect, *c*, into the indirect effect, *ab* (product of the indirect paths *a* and *b*) and the direct effect, *c'* (with the effect of the mediator removed). The total effect can be described *as c = c' + ab*, and hence the indirect effect as *ab = c – c'*.

decompose the total effect of a variable into direct and indirect (i.e., mediational) effects and to calculate the mediated percentage (i.e., the percentage of the main association explainable by the mediator).

All reported *p*-values were based on two-sided tests, with statistical significance set at $p < 0.05$. Stata version SE 14 (StataCorp, 2015) was used to analyze the survey data.

Results

In this study, 1,110 and 890 individuals identified themselves as men and women, respectively, with ages ranging from 18 to 90 years (mean age = 49.37 ± 0.33). Of these, 745 had suffered the loss of someone close to them during the pandemic (from March 2020) and completed the five PGS items to assess pandemic grief, in addition to the other measures.

Some variables received a lower number of responses due to missing values, with the highest number being 53 for the social support variable. Given that other affected variables had far fewer missing values, we decided against imputation for the missing data. Instead of removing those cases for all variables, we ran the analyses with the largest possible number of responses to keep the largest sample size. It is unlikely that this influenced the results

Table 1.

Characteristics of the sample of the study (N =2000)

	Freq.	%
Sex		
• Female	1110	51.50
Age (years)		
• 18–34	365	22.10
• 35–49	616	27.20
• 50–64	683	27.00
• 65+	336	23.70
Social support [a]		
• Strong	873	44.58
• Moderate	883	45.69
• Poor	191	9.73
Marital status		
• Never married / Single	662	35.12
• Married	1079	51.57
• Divorced / separated	165	7.35
• Widowed	94	5.96
Education		
• Primary	115	6.62
• Secondary low	620	30.78
• Secondary high	379	18.44
• Tertiary	886	44.16
COVID-19 infection status (tested positive or diagnosed)	57	2.70
Pre-pandemic mental disorder	697	34.06
Grief (PGS)		
• No Loss	1.255	62.94
• Low	619	30.90
• Moderate	111	5.49
• Dysfunctional	15	0.67

Note. Unweighted frequencies (Freq.) and weighted proportions (%) of mental disorders and control variables are displayed. Some variables have a lower number of responses due to lost values.

Table 2.

Odds Ratio [95% confident interval] resulting from the unadjusted Logistic Regression Models of factors related to Mental Health Conditions.

	Major depressive disorder	Generalized anxiety disorder	Post-traumatic stress disorder	Substance use disorder	Panic attacks	Suicidal thoughts and behaviors
Grief (PGS)						
No Loss	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Low	0.96 [0.70, 1.31]	0.67 [0.48, 0.94] *	0.79 [0.57, 1.10]	0.84 [0.53, 1.32]	0.85 [0.59, 1.21]	1.65 [0.97, 2.80]
Moderate	5.41 [3.46, 8.46] ***	3.38 [2.14, 5.34] ***	3.02 [1.89, 4.85] ***	2.02 [1.06, 3.83] *	3.21 [1.91, 5.40] ***	5.09 [2.49, 10.40] ***
Dysfunctional	20.82 [6.34, 68.28] ***	13.56 [4.34, 42.35] ***	6.84 [2.39, 19.58] ***	2.05 [0.45, 9.39]	17.93 [5.75, 55.92] ***	8.16 [2.16, 30.79] **

Note. Odds Ratio with 95% confidence interval are displayed. Ref = Category of reference. *p < .05, **p < .01, ***p < .001.

significantly since we did not find statistically significant sociodemographic differences comparing people with and without missing values. We present the sociodemographic characteristics of the sample in Table 1.

Overall, 51.50 % identified as women and distribution was even among the established age groups. About a tenth of the sample reported having poor social support, while around 45 % reported moderate or strong social support. At the time of assessment, half the sample were married and about a third were single. In terms of education, the largest group were those with a tertiary education level. Less than 3 % of participants reported having been hospitalized for COVID-19 and/or having had a positive COVID-19 test or medical diagnosis not requiring hospitalization. Approximately one-third reported having suffered from a mental disorder prior to the pandemic.

To keep working with the full sample and to include data from participants who reported no bereavement during the pandemic, we included a "no loss" reference category for the pandemic grief variable, which included most respondents. Among those who suffered a close bereavement during the pandemic, most reported low-level grief while only 15 reported dysfunctional grief (0.67 %). Tables 2 and 3 show the unadjusted and adjusted logistic regression models, respectively, of the association between pandemic grief levels with the six mental health conditions. Adjusted variables were sex, age, social

Table 3.

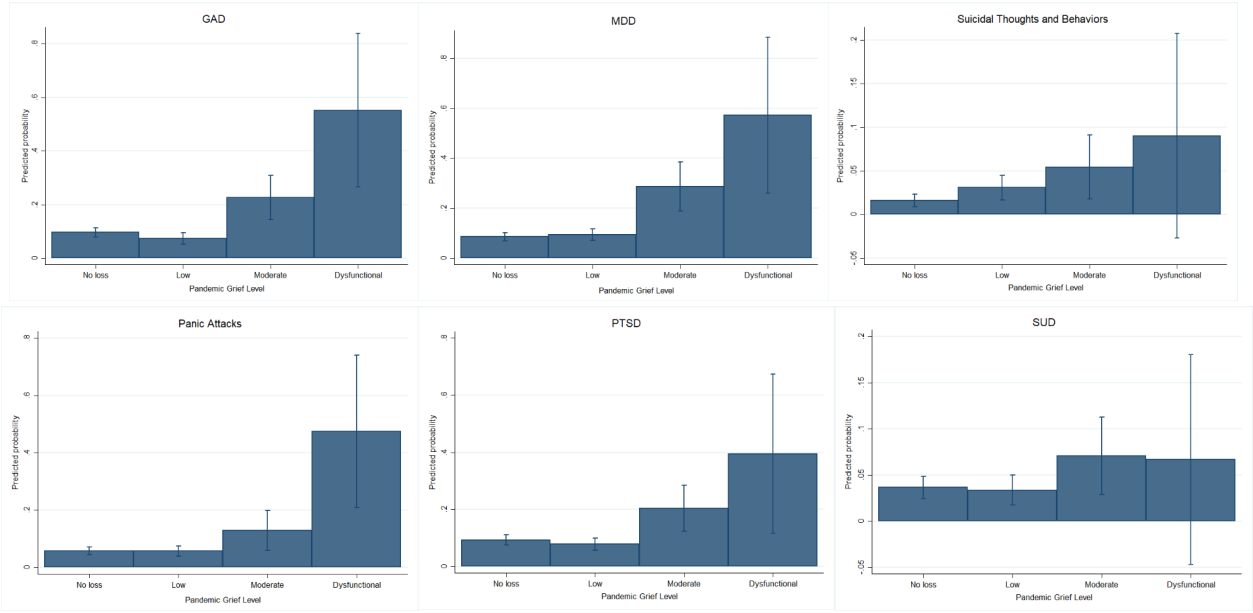
Odds ratio [95% confident interval] resulting from the adjusted logistic regression models of factors related to mental health conditions.

	Major depressive disorder	Generalized anxiety disorder	Post-traumatic stress disorder	Substance use disorder	Panic attacks	Suicidal thoughts and behaviors
Grief (PGS)						
No Loss	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Low	1.10 [0.80, 1.54]	0.75 [0.52, 1.08]	0.82 [0.58, 1.17]	0.92 [0.56, 1.51]	0.99 [0.68, 1.44]	1.94 [1.10, 3.43] *
Moderate	4.29 [2.60, 7.07] ***	2.75 [1.67, 4.53] ***	2.50 [1.50, 4.15] ***	2.01 [1.04, 3.87] *	2.42 [1.31, 4.47] **	3.50 [1.64, 7.46] **
Dysfunctional	14.28 [3.94, 51.72] ***	11.61 [3.60, 37.40] ***	6.36 [1.97, 20.60] **	1.89 [0.30, 11.79]	14.86 [5.05, 16.88] ***	6.04 [1.41, 25.90] *

Note. Models mutually adjusted for sex, age, social support, marital status, educational level, COVID-19 infection status, and pre-pandemic mental disorder. Ref = Category of reference. *p < .05, **p < .01, ***p < .001.

Figure 3.

Predicted probabilities with 95% confidence intervals for Mental Disorders.



Note. All predictions were adjusted for sex, age, social support, marital status, educational level, COVID-19 infection status, and pre-pandemic mental disorder.

support, marital status, educational level, COVID-19 infection status, and pre-pandemic mental disorder.

Compared to those who had suffered no losses, those affected by moderate and dysfunctional grief had higher odds of MDD, GAD, PTSD, panic attacks, and STB. For SUD, results were significant only for moderate grief. These greater risks in cases of moderate grief (vs. no loss) were around 2–2.5 times that of developing GAD, PTSD, SUD, or panic attacks, reaching 3.50 time for STB and 4.29 times for MDD. Values for comparisons between the dysfunctional bereavement group and those who with no losses were even more drastic, seeing approximate 6-fold increased risks of PTSD and STB, 11.6-fold increased risks of GAD, and 14- to 15-fold increased risks of MDD and panic attacks. Statically significant differences were also found for low grief levels (vs. no loss) and STB, for which risk was increased.

The estimated probabilities for each mental disorder depending on pandemic grief levels are represented in Figure 3. Compared with non-bereaved individuals, risk of a disorder increased with increasing PGS score from low to dysfunctional grief, as follows: from 0.09 (95%CI: 0.07, 0.10) to 0.57 (95%CI: 0.26, 0.88) for MDD, from 0.10 (95%CI: 0.08, 0.11) to 0.55 (95%CI: 0.27, 0.84) for GAD, from 0.09 (95%CI: 0.08, 0.11) to 0.39 (95%CI: 0.11, 0.67) for PTSD, from 0.04 (95%CI: 0.02, 0.05) to 0.06 (95%CI: -0.05, 0.18) for SUD, from 0.06 (95%CI: 0.04, 0.07) to 0.48 (95%CI: 0.21, 0.74) for panic attacks, and from 0.02 (95%CI: 0.01, 0.02) to 0.09 (95%CI: -0.03, 0.2) for STB.

Finally, the results of the mediation analyses are shown in Table 4. The association between pandemic grief and mental disorders was mediated by loneliness in percentages ranging from 8% to 30%, with PTSD yielding the highest percentage. This indicates that loneliness was a noticeable path through which pandemic grief affected the emergence of PTSD and other disorders.

Table 4.

Logistic Regression Analyses of the Association of PGS score with Mental Health Conditions with Loneliness as a Mediator.

Dependent variables:	Independent variable: PGS score	% Mediated Loneliness
MDD		
Total	1.90 [1.52, 2.37] ***	
Direct	1.70 [1.36, 2.11] ***	
Indirect	1.12 [1.05, 1.19] ***	17.47
GAD		
Total	1.46 [1.17, 1.83] **	
Direct	1.35 [1.08, 1.69] *	
Indirect	1.08 [1.03, 1.13] **	20.93
PTSD		
Total	1.38 [1.10, 1.73] **	
Direct	1.25 [0.99, 1.57]	
Indirect	1.10 [1.04, 1.17] **	30.28
SUD		
Total	1.19 [0.89, 1.60]	
Direct	-	
Indirect	-	-
Panic Attacks		
Total	1.58 [1.24, 2.01] ***	
Direct	1.48 [1.16, 1.89] **	
Indirect	1.06 [1.02, 1.11] **	13.30
Suicidal Thoughts		
Total	1.81 [1.34, 2.44] ***	
Direct	1.72 [1.28, 2.32] ***	
Indirect	1.05 [1.01, 1.09] *	8.11

Note. Odds Ratio with [95% confidence interval] are displayed. For the mediation analysis, the independent variable (PGS) was introduced as continuous. All models were adjusted for sex, age, social support, marital status, educational level, COVID infection status, and pre-pandemic mental disorder. Mediation effect is not provided when the total association was not significant. Percentage mediated is considered statistically significant (*) when indirect effect is *p < .05; **p < .01; ***p < .001.

Discussion

The COVID-19 pandemic has claimed many lives and left even more people grieving. Considering the exceptional circumstances in which this bereavement has been processed and the impact that grief can have on general health, our team set out to analyze the association between pandemic grief levels and a range of mental health conditions.

The effects of moderate and dysfunctional grief on mental health were significant in the current research. The bereaved showed an increased risk of depression that was 4–14 times greater than for those not bereaved. If a participant had dysfunctional grief, their risk of panic attacks was 15 times greater, the risk of GAD was > 11 times greater, and the risk of PTSD was > 6 times greater when compared with non-bereaved individuals.

Our results are consistent with those of studies showing that a high level of grief symptomatology predicts the onset of depression (Camacho, 2013). They are also related to previous literature reporting depressive symptoms in bereaved populations (Parkes, 1996), in which 25%–45% of participants had subclinical depressive symptoms and 10%–20% had clinical depression

(Hansson & Stroebe, 2003; Stroebe et al., 2007). Some studies suggest that there is an elevated risk of both anxiety disorders (e.g., GAD and panic) and PTSD after the stress of bereavement (Hagengimana et al., 2003; Jacobs et al., 1990; Keyes et al., 2014; Shear & Skritskaya, 2012), indicating that these disorders are more prevalent in the bereaved population than in the general population (Zisook et al., 2014). Additionally, several studies have examined their association with complicated grief, confirming the high rates of anxiety disorders and PTSD in individuals with complicated grief, both before and after the loss (Jacobs et al., 1990; Simon et al., 2007). People who have PTSD with or without an anxiety disorder, together with complicated grief, report much worse grief symptomatology and impairment than those with complicated grief alone (Marques et al., 2013; Pini et al., 2012; Simon et al., 2007). Different authors state that these comorbidities may be due shared symptomatology between complicated grief and anxiety, depression, or stress-related disorders, including avoidance, intolerance of uncertainty, rumination, and hyper-arousal (Boelen, 2010; Parro-Jiménez et al., 2021; Schaal et al., 2012; Shear et al., 2011). Our results strengthen the reported relationships between intense grief and these mental health disorders.

Although there was a relationship between SUD and grief in this study, it was not consistent. However, it is worth mentioning that a tendency was observed that suggests this topic should be considered for further investigation, especially if one also considers the biological plausibility. Parisi et al. (2019) reported preliminary evidence of a positive relationship between complicated grief and substance misuse. Studies included in their review indicated that individuals with either complicated grief or substance misuse are vulnerable to the subsequent development of the other condition. Thus, bereavement can increase substances misuse, but substance misuse in turn can increase the risk for a maladaptive resolution of grief (Stroebe et al., 2006). The higher prevalence of complicated grief in people with substance addiction may relate to a history of more loss in this population (Furr et al., 2015), and to the interference of substance misuse on the resolution of grief (Stroebe et al., 2006).

It should also be mentioned that STB differed significantly between the reference group and all levels of grief. Even people with a low level (PGS score 0 or 1) had an almost doubled risk compared to those who had not lost anyone. The ORs increased to 3.5 for moderate grief and to 6 for dysfunctional grief. This latter result is very similar to that reported by Latham and Prigerson (2004), who associated complicated grief with a 6.58 (95%CI: 1.74, 18.0) and an 11.30 (95%CI: 3.33, 38.10) times increased likelihood of "high suicidality" at baseline and follow-up, respectively. Frumkin et al. (2021) found that bereaved adults with current suicidal thoughts, a history of suicide attempts, and overall elevated suicide risk reported significantly elevated psychological pain, consistent with this phenomenon being a predictor of STB in the literature (Flamenbaum & Holden, 2007; Holden et al., 2001; Troister & Holden, 2010). Overall, our research provides additional support that dysfunctional grief serves as an independent risk factor for suicidal thoughts and actions.

It is noteworthy that our risk estimates reached high levels. Variations between our data and those reported in previous literature could be attributed to the common differences that exist between any studies (e.g., demographics or design), but they could also result from the effect of the pandemic and/or the conditions in which the bereavement in this study occurred. It is clear that the COVID-19 pandemic has had alarming implications for individual and collective health, including the emotional and social functioning of the population (Pfefferbaum & North, 2020). As contextualized in the introduction, pandemic deaths may lead to a difficult grief adaptation, putting the bereaved at increased risk of mental health pathology. However, we must recognize that none of the observed relationships indicate causality. More literature showing the observed link in prior pandemics and longitudinal data are needed to support this theory, but both are currently lacking.

For our secondary hypothesis, we gathered evidence that loneliness played a key role in the link between bereavement and different mental health conditions. It should be noted that all indirect paths through loneliness were statistically significant in our study.

Vedder et al. (2021) very recently published a systematic review on the role of loneliness in bereavement, reporting that high levels of loneliness correlated with poorer mental and physical health. The found three clinical conditions—MDD, PTSD, and prolonged grief disorder—to be particularly associated with loneliness, consistent with our findings. Of the disorders studied, we found that PTSD was the one in which loneliness was found to have the strongest mediating capacity in its relationship with bereavement (30%). For the other disorders, however, the percentage explained by loneliness was by no means negligible. The indirect pathway reached values of 20% for GAD, 17 % for MDD, 13% for panic attacks, and 8% for STB. This indirect mediating effect was also found by other authors, as for the correlation of grief burden and depression, leading them to conclude that loneliness is the mechanism by which grief intensifies depressive symptoms in older people (Schladitz et al., 2021). Parro-Jiménez et al. (2021) concluded that social support was among the most important protective factors against complicated grief, as shown elsewhere (Heeke et al., 2017).

What we find important here is that it is feasible to intervene with loneliness. We can reinforce social systems and provide help, offering accompaniment or psychological support programs for the bereaved (e.g., bereavement groups). We are aware though, that these interventions are more difficult to implement during a pandemic. However, given the implications of loneliness on well-being, protecting individuals from loneliness may prevent dysfunctional grief in some mourners and facilitate adaptive resolution of grief with fewer risks for serious mental health disturbances. The value of this knowledge lies in being able to identify factors that can explain the relationship between intense bereavement and the development of mental health disorders. Knowing that loneliness is one such factors allows us to explore tools to make a real difference.

Despite providing knowledge on the relevance of bereavement for mental health during the pandemic, it is important to mention that the present study has some limitations. First, the data used in this research were collected by self-reported survey, so we cannot be certain of the diagnoses compared to a structured clinical interview by an expert. However, in most cases, the measures used for the assessment were validated and had good psychometric properties. A second limitation then follows our use of non-validated Spanish versions of some measures, including the PGS, on which we based a large part of this work. Nevertheless, this scale was adapted into Spanish by our team following the recommended process for transcultural adaptation and was approved by the second author of the original English version who is competent in Spanish. Moreover, we calculated and reported the internal consistency of these instruments in our sample, which (except for OSSS-3) were overall good. A third limitation is that time after death was not included as a covariate. Still, we subsequently ran statistical analyses testing its interaction with pandemic grief, and these results were not significant. Fourth, we used complicated grief as a reference to compare with dysfunctional grief, and our team chose this term due to its major representation in the literature and because it encompasses non-functional bereavement. However, it must be admitted that certain comparisons may not be fully accurate because this term was mainly considered in relation to grief intensity (assessed with the PGS) whereas "complicated grief" may have an implicit relationship with time (assessed with the Inventory of Complicated Grief). Fifth, when writing about gender identity, descriptors with modifiers (e.g., cisgender women, transgender women) are more specific than descriptors without modifiers (e.g., women) or general non-gendered terms (e.g., people, individuals). In this survey, only the male/female options were considered, something that can also be seen as a limitation. We are aware that this issue was overlooked and that there exists a wider range of gender options. In any future study we will use more inclusive and appropriate terms. Lastly, we need to bear in mind that the present analyses are cross-sectional. As mentioned, this design limits conclusions about directions and causality of associations. Our team was able to compensate for this somewhat by correcting the models for pre-pandemic mental disorders, providing a degree of temporality. When the MIND/COVID project carries out the next follow-up assessment of the same individuals, we can repeat our analyses with two time points.

Summing up, the results of this study convincingly support our hypothesis that bereavement and how this is

processed is associated with a higher risk of suffering from a range of mental health conditions. Loneliness appears to explain part of this relationship between bereavement and mental health, indicating that it is a factor to be considered in interventions, for example by targeting social engagement to promote mental health. Coupled with existing data, we think that there is now sufficient evidence to assert that people coping with moderate grief, especially when dysfunctional, should receive more psychosocial support because they are at increased risks of mental health disorders and the associated functional impairment. This implication derived from our study (and supported by other findings) can contribute to local health policies in dealing with the mental health consequences of the COVID-19 pandemic, and should be taken into account for possible future pandemics as well.

Finally, our results set the basis for further considerations. We propose a more accurate assessment of the degree to which the current pandemic had a causative or aggravating role in distress and mental disturbances within the population. Specifically, this research should focus mainly on those with a history of mental disorders. We encourage researchers to continue studying bereavement and its relationship with mental health and loneliness, a topic for which there is still a dearth of quantitative and qualitative data. Those who were bereaved and developed a low level of grief showed differences, albeit not very remarkable, to those who were not bereaved. Therefore, we established that it may not be the loss per se but how it is managed (level of grief experienced) that puts the individual at greater risk of developing a mental disturbance. Future research could also examine what factors affect the way grief is processed, including the how the loss occurred, the kinship with the deceased, or the time elapsed since the loss.

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Authors' Contributions

The study design was planned by LB-M, GF, AG-P, JD-A, PM, GV, JA. JMH. LB-M and GF conducted the data analyses and drafted the article. JMH and JA supervised the data analyses and development of the paper. The paper was edited and reviewed by all the authors. All authors read and approved the final manuscript.

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Availability of Data and Material

The de-identified participant data as well as the study protocol, statistical analysis plan, and data dictionaries used for this study are available as from publication and upon reasonable request from the corresponding author (JMH; jmharo@pssjd.org) as long as the main objective of the data sharing request is replicating the analysis and findings as reported in this paper (without investigator support), after approval of a proposal, and with a signed data access agreement.

Code Availability

Not applicable.

Declarations

Ethical approval from the relevant ethical committees (Parc Sanitari Sant Joan de Déu, Barcelona, Spain (PIC 86–20) and Parc de Salut Mar Clinical Research Ethics Committee (protocol 2020/9203/I)) was obtained.

All authors declare no conflicts of interest, neither financial nor non-financial.

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MEDIATING EFFECT OF AUTISTIC TRAITS BETWEEN THE EMOTIONAL IMPACT OF PANDEMIC AND DEPRESSIVE SYMPTOMS

EFECTO MEDIADOR DE LOS RASGOS AUTISTAS ENTRE EL IMPACTO EMOCIONAL DE LA PANDEMIA Y LOS SÍNTOMAS DEPRESIVOS

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Abstract

Background. The pandemic is having a significant impact on mental health, especially in vulnerable groups. Method. A conditional analysis was carried out with a population of 185 people. The study population did not have any psychiatric diagnosis, they are people without autism. The age of the participants ranges between 18 and 72 years (M = 31.43; SD = 16.26). The mediating role of autistic traits and the moderating role of age between the emotional impact of the pan-demic and depressive symptoms are analyzed. Results. The results demonstrate a significant influence of age and emo-tional impact of the pandemic on the depressive symptoms. The mediating variable autistic traits was also significant. Conclusions. These results point to the younger population with autistic traits as particularly vulnerable.

Keywords: Autism traits; COVID-19; depressive symptoms; pandemic.

Resumen

Antecedentes. La pandemia está teniendo un impacto significativo en la salud mental, especialmente en los grupos vulnerables. Método. Se realizó un análisis condicional con una población de 185 personas. La población de estudio no tuvo ningún diagnóstico psiquiátrico, son personas sin autismo. La edad de los participantes oscila entre 18 y 72 años (M = 31.43;

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DT = 16.26). Se analiza el papel mediador de los rasgos autistas y el papel moderador de la edad entre el impacto emocional de la pandemia y los síntomas depresivos

Resultados. Los resultados demuestran una influencia significativa de la edad y del impacto emocional de la pandemia sobre los síntomas depresivos. La variable mediadora rasgos autistas también fue significativa. Conclusiones. Estos resultados señalan que la población más joven con rasgos autistas es especialmente vulnerable.

Palabras clave: Rasgos autistas; COVID-19; síntomas depresivos; pandemia.

Introduction

The impact of the COVID 19 Coronavirus pandemic is being very significant at health, and psychological levels. Some studies have detected a significant psychopatho-logical impact on the general population (Chen et al., 2020; Duan & Zhu, 2020; Li et al., 2020; Yang et al., 2020) and population with previous psychiatric diagnoses where this impact was greatest (Colizzi et al., 2020; Kwong et al., 2021; Varma et al., 2021).

During this period the prevalence of anxiety and stress have increased significant-ly, reaching 35% in a study with 52,730 people, being more common in women and the population between 18-30 years (Kwong et al., 2021). One of the factors that most influ-ence the increase in psychological stress is the use of social networks to inform about the evolution of the pandemic (Qiu et al., 2020; Roy et al., 2020; Sandín et al., 2020). Roy et al. (2020) studied 662 people in India and observed concern in 72 %, 40 % were paranoid about the possible infection and 12 % had sleep problems. Regarding the psychological impact of the pandemic on university students, severe anxiety symptoms are reported in 0.9 %, moderate in 2.7 % and mild in 21.3 % (Cao et al., 2020). In addition, this study demonstrated that the most significant protective factors against anxiety were to reside in an urban area, to have economic stability and living with parents.

Regarding depressive symptoms during the pandemic, the prevalence ranges from 7.45 % to 48.30 %, depending on the studies. In a recent meta-analysis, Bueno-Notivol et al. (2021) reported a 25 % prevalence of depression during the COVID-19, which is 7.5 % higher than the prevalence of 3.44 % observed in 2017.

Factors contributing to this increase in prevalence include lower economic income, poor health status, sleep disturbances, lack of physical activity, hypertension, respiratory problems, fear of COVID-19 reinfection, and persistent COVID-19 symptoms (Islam et al., 2021; Varma et al., 2021). In addition, the increase of depressive and anxiety symptoms observed during large periods of con-finement (Tang et al., 2021) was associated to age, with younger people being the most vulnerable (Jung et al., 2020; McGinty et al., 2020; Pierce et al., 2020; Rossell et al., 2021; Shah et al., 2021; Varma et al., 2021).

Sandín et al. (2020) reported during the initial phase the COVID-19 the most common fears are related with disease, contagion, and death, in addition to employment, income and social isolation issues. Emotional symptoms such as depression, anxiety, worry or restlessness and sleep problems were also reported. Intolerance to uncertainty and exposure to the media were pointed out as impact enhancing factors.

Cybercondria is a form of anxiety about one's own health status, because of excessive reviews of online health information. This disorder may lead to increase of unnecessary medical expenses, worry, distress, etc. (Starcevic et al., 2020). In addition, cyberchondria is related to health anxiety (Durak-Batigun et al., 2018; Fergus & Spada, 2017, 2018; Mc Mullan et al., 2019), associated a problematic use of the internet (Fergus & Spada, 2017; Selvi et al., 2018) and with obsessive compulsive disorders (Bajcar & Babiak, 2019; Bajcar et al., 2019; Fergus, 2012). People who use frequently the media as an information source increase cyberchondria COVID-19 and in-formation overload (Farooq et al., 2020). Cybercondria increase the anxiety to COVID disease (Jungmann & Witthöft, 2020), due to increased exposure to the fear of contagion and a distorted symptoms of the disease in the media (Farooq et al., 2020; Kouzy et al., 2020).

Regarding the impact of the pandemic on people with disabilities and chronic illnesses, a close link between stress and coping strategies such as the ability to distract one-self, denial, religion, or blame has also been observed (Umucu & Lee, 2020). Within the population especially vulnerable to pandemic (Baweja, Brown, Edwards & Murray, 2021) and anxiety, there are people with Autism Spectrum Disorders (ASD), who show higher levels of stress associated with the severity of the characteristic symptoms of the disorder (i.e., Hallett et al., 2013; Mayes et al., 2011). More autistic traits have also been seen in people with depressive and anxiety disorders (Hollocks et al., 2019; Pine et al. 2008; van Steensel et al., 2013) and a significant relationship between autistic and anxious or depressive traits in people without psychiatric disorders (Kanne et al. 2009; Rai et al., 2018; Scherff et al. 2014).

Additionally, one of the enhanced variables of the impact of the pandemic on men-tal health is exposure to the media (Qiu et al., 2020; Roy et al., 2020; Sandin et al., 2020), and this exposure it is significantly higher among people with ASD, reaching a higher risk of internet addiction (García et al., 2020; Kawabe et al., 2019). One of the signs that show the increase in anxiety and discomfort in people with ASD are behavioral problems, which have increased during confinement (Colizzi et al., 2020). Other effects the pandemic has had on people with ASD and intellectual disa-bilities are a significant decrease in balance, along with a deterioration of well-being and ASD symptoms in the period of confinement and an improvement in executive functions after return to normal life (Jodra & García-Villamisar, 2022).

There is a close relationship between autistic traits and anxiety or depression in the clinical and non-clinical population (Hollocks et al., 2019), so it is expected that there will be greater vulnerability to anxiety and depression during the pandemic in people with a higher level of autistic traits. The primary aim of this study is to explore the mediating capacity of autistic traits and the moderating capacity of age in the relationship between the emotional impact of COVID-19 and depressive symptoms in the general population. The hypotheses of this study were, first, that autistic traits would significantly mediate between the emotional impact of the pandemic and depressive symptoms, and second, that the moderating role of age would also prove significant.

Method

Participants

A total of 185 people residing in the Community of Madrid (Spain) participated. The study population did not have any psychiatric diagnosis, they are people without autism. The age of the participants ranges between 18 and 72 years (M = 31.43; SD = 16.26), and 159 are women (85.9 %). Although 1.9 % have not received a positive for COVID 19 until the completion of the questionnaires, however 8.1 % have received a positive result. Regarding the employment situation, 32.4 % were active people, 1.6 % unemployed, 7 % re-tired, and 58.9 % university students. T4.9 % of the participants live alone, 18.9 % with 1 person, 22.2 % with 2, 31.4 % with 3, 18.9 % with 4 and 3.6 % with more than 5 (Table 1).

Table 1.

Participant demographic characteristics (N = 185)

	n	%
Gender		
Male	26	14.1
Female	159	85.9
Diagnosed with COVID-19		
Yes	15	8.1
No	170	91.9
Number of cohabitants		
1-2	76	41.1
3-4	93	50.3
+ 5	7	3.7
Professional status		
Student	109	58.9
Active	60	32.4
Unemployed	3	1.6
Retired	13	7.0
Autism Traits		
Low (Scores 0-2)	97	52.4
Moderate (Scores 3-4)	58	31.4
High (Scores over 5)	30	16.2

Note. Age = Min: 18.00, Max: 72.00, M: 31.432, SD: 16.269.

Participants were informed of the characteristics and objectives of the study and gave informed consent, then completed online questionnaires between January 15 and February 15, 2021. The study was reviewed and approved by the Ethics Committee of the Psychopathological Unit at Faculty of Education (Complutense University of Madrid, Spain).

Assessment instruments

Coronavirus Psychological Impact Questionnaire-Media Exposure (CPIQ-ME; Sandín et al., 2020)

CPIQ-ME is a 4-item scale designed to assess media exposure, including televi-sion, internet, social media, and newspapers. The scale includes three possible answers ranged from 1 («Little to nothing» to 3 («The main part of the day»). The psychometric proprieties are acceptables (Sandín et al., 2020).

Cyberchondria Severity Scale (CSS; McElroy & Shevlin, 2014)

The CSS is a 33-item self-report questionnaire assessing anxiety and behaviors associated with online health information seeking (McElroy & Shevlin, 2014). It is made up of 5 subscales: compulsion (interference with other activities), distress, excessiveness, reassurance, and mistrust of medical professionals. The CSS total score demonstrated ex-cellent internal consistency (α = .95). In addition, the CSS subscale scores demonstrated good to excellent internal consistency ($\alpha's$ = .81 to .95; McElroy & Shevlin, 2014).

Fear of COVID-19 Scale (FC-19S; Kwasi Ahorsu et al., 2020)

Fear of COVID-19 Scale is a seven-item unidimensional scale with robust psy-chometric properties. Moreover, total scores on the FCV- 19S are comparable across both genders and all ages which suggest that it is a good psychometric instrument to be used in assessing and allaying fears of COVID-19 among individuals. the internal consistency was good (α = .82), composite reliability (0.88) and AVE (0.51) were acceptable (Kwasi Ahorsu et al., 2020).

COVID-19 Peritraumatic Distress Index (CPDI; Qiu et al., 2020)

The original questionnaire was published in Chinese by Qiu et al. and translated into English by the same authors (2020). It consists of 4 dimensions and 24 items in total. The objective is to measure the emotional impact (EI) caused by COVID; the frequency of anxiety, depression, specific phobias, cognitive change, avoidance and compulsive behav-iour, physical symptoms and loss of social functioning in the past week, ranging from 0 to 100. A score between 28 and 51 indicates mild to moderate distress. A score $\geq$ 52 indi-cates severe distress. The Cronbach's alpha of CPDI is 0.95 ($p < .001$; Qiu et al., 2020).

Coronavirus Anxiety Scale (CAS; Lee, 2020)

The CAS is made up of five items that allow identifying the frequency of physio-logical symptoms generated by thoughts and information related to COVID-19 during the last two weeks. How often the anxiety symptoms were experienced is answered from a scale with five response options (0 = not at all to 4 = almost every day). The CAS score ranges from 0 to 20, where a higher value expresses a higher frequency of anxiety symp-toms due to COVID-19. The original English version of the CAS had a Cronbach's alpha coefficient value of .93. (Lee, 2020).

The Autism Spectrum Quotient (AQ-10; Allison et al., 2012)

The 10-item AQ (AQ10; Allison et al., 2012), is a short-ened version of the AQ (Baron-Cohen et al., 2001). Is a standardised self-report ques-tionnaire designed to measure the degree to which adults with normal intelligence have the traits associated with the autism spectrum. Internal consistency was > 0.85. (Allison et al., 2012).

Patient Health Questionnaire (PHQ-9; Spitzer et al., 1999)

The Spanish version of the depression scale PHQ-9 (Baader et al., 2012) was used, which consists of 9 items that assess the presence of depressive symptoms present in

the last 2 weeks. Each item has a severity index corresponding to: 0 = "never", 1 = "some days", 2 = "more than half of the days" and 3 = "almost every day". It shows adequate internal consistency, with a Cronbach's alpha of .83. (Spizer et al., 1999).

Sociodemographic variables

Finally, data were collected on age, gender, number of people with whom they live, employment status and health status in relation to COVID.

Statistical Analysis

All analyses were performed using SPSS Statistics Base 25 (IBM Corp., 2018). Pearson's bivariate correlations were calculated to assess the relationships between the variables included in the study (autistic traits, anxiety symptoms, emotional impact of the pandemic, cyberchondria, media exposure, fear of COVID-19 and depressive symptoms).

Given the above results, a moderated mediation or conditional process analysis was conducted for the emotional impact of pandemic (X) and depressive symptomatology (Y), following Hayes' (2018) model 7. The variable introduced as mediator was ASD traits (M1) and the variable proposed to moderate this relationship was age.

Results

Descriptive Statistics

Table 1 shows the descriptive statistics of the sample studied. Age, gender, num-ber of cohabitants, previous diagnosis of COVID-19, professional situation and autistic traits are included.

Correlations

First, a bivariate correlation analysis was performed among autism traits, corona-virus anxiety symptoms, emotional impact of the pandemic, cyberchondria, media expo-sure, fear of COVID-19 and depressive symptoms.

Autistic traits positively correlated with depression symptoms, (r = .273; p < .01), emotional impact of the pandemic (r = .207) and with fear of COVID-19 (r = .20), all *ps* < .05 (Table 2).

Table 2.

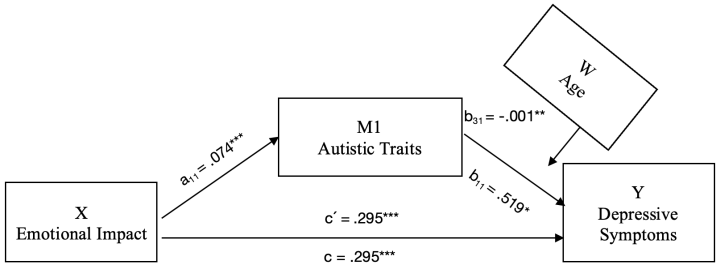
Descriptive statistics and intercorrelations among all measured variables.

	1	2	3	4	5	6	7
1. Autistic Traits (AQ-10)	1						
2. Coronavirus Anxiety symptoms (CAS)	.071	1					
3. Emotional impact of the pandemic (CPDI)	.207**	.648**	1				
4. Cyberchondria (CSS)	.128	.381**	.405**	1			
5. Media Exposure (ME)	.030	.173*	.214**	.251**	1		
6. Fear of COVID-19 (FC-19S)	.150*	.444**	.608**	.498**	.210**	1	
7. Depressive Symtoms (PHQ 9)	.273**	.434**	.716**	.415**	.065	.371**	1

Note. *** p < .001, (two-tailed). ** p < .01(two-tailed)., * p < .05 (two-tailed).

Figure 1.

Graphical representation of conditional analysis.



Note. a_{11} = direct effect of emotional impact on autistic traits; b_{11} = direct effect of autistic traits on depressive symptoms; b_{31} = Interaction effect of the age variable on the relationship between autistic traits and depressive symptoms; c´= direct effect of the emotional impact of the pandemic on depressive symptoms; ** $p < .010$; *** $p < .001$.

Conditional analysis

The main objective of this study is to explore the mediating capacity of autistic traits and the moderating capacity of age in the relationship between the emotional impact of COVID-19 and depressive symptoms in the general population. To achieve this, a moderated mediation or conditional processes analysis (Hayes & Rockwood, 2020) was conducted for the emotional impact of COVID-19 (X) and depressive symptoms (Y), following Hayes' (2018) model 7. This replicated in 10,000 bootstrapping samples. The variable introduced as mediator was autistic traits (M1) and the variable proposed to moderate this relationship was age (W) (see Figure 1).

The direct effect of the variable W -age- on depressive symptoms was significant ($b_2 = .037$, SE = .013; $p < .050$), as well as the interaction effect of the age variable, that is, the moderating effect ($b_{31} = -.001$, SE = .000; $p < .050$). Similarly, the direct effect between the emotional impact of the pandemic and depressive symptoms was significant ($c´ = .295$, SE = .022; $p = .000$). The conditioned effect of the age, that is, the moderate mediation index, was also significant for the relationship between the mediating variable autistic traits, since the confidence interval does not contain 0 ($b_{11}b_{31} = -.000$, SE = .000, [-.001, .000]).

Table 3.

Model of conditional analysis.

					Constant			
		M_1 (Autistic Traits)				***Y (Depressive Symptoms)***		
Antecedents		*Coef.*	*SE*	*p*		*Coef.*	*SE*	*p*
X (Emotional Impact)	a_{11}	.074	.018	<.001	c´	.295	.022	<.001
M_1 (Autistic traits)	-	-	-	-	b_{11}	.519	.206	<.050
W (Age)	-	-	-	-	b_2	.037	.013	<.050
M_1*W	-	-	-	-	b_{31}	-.001	.000	<.050
Constant	i_{M1}	.695	.556	>.050	i_Y	-1.338	.809	>.050
		$R^2 = .090$				$R^2 = .529$		
		F (3,181) = 5.964, $p < .001$				F (2,182) = 102.386, $p = .001$		

Note. i_{M1}, i_{M2} and i_Y are intercepts of the regression.

The differences in each of the levels of the moderating variable in its indirect con-ditional effects show that this relationship was significant for younger people. That is, the relationship mediated by autistic traits between the emotional impact of the pandemic and depressive symptoms is significant in people under 23 years of age (.005, .033).

Discussion

The results obtained in the correlation analysis agree with those obtained in other investigations confirming a relationship between depressive symptoms and autistic traits ($r = 273$, $p < .05$). These investigations have observed more ASD traits in people with anxiety and depressive disorders (van Steensel et al., 2013) and a significant relationship between autistic and depressive traits in people without psychiatric disorders (Rai et al., 2018; Scherff et al., 2014).

On the contrary, it has not been possible to demonstrate a relationship between au-tistic traits and exposure to the media ($r = .030$, $p > .05$), as expected based on previous findings regarding exposure to the media significantly higher in people with ASD and, therefore, a higher risk of internet addiction (García et al., 2020; Kawabe et al., 2019). Also, nor could we observe a significant relationship with cybercondria ($r = 0.128$) or with anxiety symptoms or traits ($r = 0.071$). These findings can be explained by the characteristics of the study population, as they do not have a diagnosis of ASD, so we are assessing ASD traits in general population and previous findings about autism, media and cyberchondria, correspond to people with a diagnosis of autism. In addition, many of the studies on this topic address it in a normalized context, not in a pandemic.

During the pandemic, symptoms related to anxiety and depression have increased. The prevalence of depression ranges from 7.45 % to 48.30 %, depending on the studies. As for depression, the prevalence ranges from 7.45 % to 48.30 % depending on the stud-ies, with an average of 25 %, which is 7 times higher than the incidence before the pan-demic. (Bueno-Notivol et al., 2021).

In order to develop intervention and prevention programs, it is important to know the variables that are related to its appearance, which make a person more vulnerable. Some variables such as the level of restrictive measures (Tang et al., 2021), the number of days of confinement (Shah et al., 2021), lower economic income, poor health status, sleep disturbances, lack of physical activity, hypertension, respiratory problems, fear of COVID-19 reinfection, persistent COVID-19 symptoms (Islam et al., 2021; Varma et al., 2021) or age (Jung et al., 2020; McGinty et al., 2020; Pierce et al., 2020; Rossell et al., 2020; Shah et al., 2021; Varma et al., 2021) could be confirmed. The results achieved in this study also demonstrate a significant influence of age on depressive symptoms ($b_2 = .037$, SE = .013; $p < .050$). And additionally, a significant influence of the emotional impact of the pandem-ic on the occurrence of these symptoms is observed: ($c' = .295$, SE = .022; $p = .000$). The moderate mediation index was also significant for the relationship between the mediating variable autistic traits, since the confidence interval does not contain 0 ($b_{11}b_{31} = -.000$, SE = .000, [-.001, .000]).

Limitations

There are some limitations that should be considered when interpreting the results of this study. First, all the outcomes were self-reported, which might lead to bi-ased data. However, using self-reported scales is very common because of its utility and low cost. In addition, the household surveys were not considered opportune in order to satisfy the WHO recommended "social distance" during the COVID-19 pandemic; Second, this is a cross-sectional study, so the trajectory of the mental health of the participants could not be analyzed and we cannot draw long-term conclusions; Third, we do not have data about the possible previous diagnosis of the mental health of the participants, so we were not be able for them in our analysis. Fourth, the individuals without internet could not include in this study.

Future Directions

The results achieved point to the population with autistic symptomatology and younger age as a priority target for intervention within the framework of mental health.

Previous research points to the existence of a close link between depression and anxiety with ASD. This study has been able to confirm the mediating capacity of autistic traits between the emotional impact of the pandemic and depressive symptomatology, sig-nificantly moderated by age. In this sense, it is necessary to take into account the development of preventive interventions for this population.

Conclusion

Autistic traits influence the relationship between pandemic impact and depressive symptoms, with age being a significant moderating variable. These results again demon-strate a significant relationship between autism and depressive symptoms in a particularly complicated situation, such as an international pandemic.

In recent months many clinicians are warning about a significant increase in men-tal health-related disorders caused by the pandemic. Identifying those who are vulnerable to intervene in a preventive manner is extremely important. This study identifies two variables as causing increased vulnerability: autistic traits and age.

Declarations

Conflict of Interest

The authors confirm they have no financial or nonfinancial conflicts of interest.

Ethical Approval

The study was approved by the Ethics Committee of the Psychopathological Unit at Faculty of Educa-tion (Complutense University of Madrid, Spain).

Informed Consent Informed consent was obtained from all individual participants included in the study.

Data Availability

The datasets generated during and/or analysed during the current study are available from the correspond-ing author on reasonable request.

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VALIDACIÓN MEXICANA DE LA ESCALA DE INTEGRACIÓN DE EXPERIENCIAS DE VIDA ESTRESANTES, VERSIÓN CORTA

MEXICAN VALIDATION OF THE INTEGRATION OF STRESSFUL LIFE EXPERIENCES SCALE, SHORT FORM (ISLES-SF)

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Resumen

Adaptarse dando sentido a las situaciones adversas de la vida como las pérdidas inevitables a lo largo de la vida y otros eventos estresantes es crucial para que las personas mantengan su bienestar físico y psíquico. Holland et al. (2010, 2014) crearon y validaron dos versiones –larga y corta– de una escala para evaluar el grado de adaptación de un individuo ante una pérdida o un evento estresante. Con el objetivo de adaptar y validar al español mexicano Integration of Stressful Life Experiences Scale–Short

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Form (ISLES-SF) se llevó a cabo un estudio instrumental. En el análisis factorial exploratorio la muestra fue de 227 participantes (M = 19.51, DT = 1.67) y en el análisis factorial confirmatorio participaron 550 (M = 19.86, DT = 3.38). Ambos análisis factoriales corroboraron la estructura bifactorial, con un buen ajuste del modelo, una satisfactoria fiabilidad interna y una buena validez de constructo e instrumental, similar a las validaciones de la escala original.

Palabras clave: duelo; pérdida; saliencia de muerte; significado; pandemia Covid-19.

Abstract

Adapting by making meaning of adverse life situations such as unavoidable losses and other stressful events throughout life is crucial for people to maintain their physical and mental well-being. Holland et al. (2010, 2014) created and validated two versions -long and short- of a scale to assess the degree of adaptation of an individual to a loss or a stressful event. To adapt and validate the Integration of Stressful Life Experiences Scale–Short Form (ISLES-SF) to Mexican Spanish, an instrumental study was carried out. In the exploratory factorial analysis, the sample consisted of 227 participants (M = 19.51, SD = 1.67) and in the confirmatory factorial analysis, 550 participated (M = 19.86, SD = 3.38). Each factorial analysis corroborated the bifactorial structure, with a good fit of the model, satisfactory internal reliability, and good construct and instrumental validity, like the original scale validations.

Keywords: bereavement; loss; salience of death; meaning; Covid-19 pandemic.

Introducción

La forma en que las personas se relacionan con la adversidad es crucial para su bienestar. En los últimos dos años, la humanidad se ha visto enfrentada a la pandemia Covid-19 que conllevó no solo incertidumbre, temor al contagio, confinamiento y muerte; es decir, las personas en este tiempo afrontaron una serie de pérdidas, no generalizable solo a diagnósticos de contagio difíciles de aceptar dada la carencia de vacunas disponibles al inicio (Boss, 2015) ni a la pérdida física de un ser querido agravada, durante este tiempo, por la imposibilidad de los ritos funerarios para restaurar el equilibrio individual y social (Cifuentes Medina, 2011), con la sensación de detenerse en el tiempo con la incertidumbre de avanzar o no con sus vidas (García y Suárez, 2007), sino a otro tipo de pérdidas que se vivencian por eventos y cambios en el día a día (Zhai y Du, 2020).

Durante este tiempo se han reportado más de 6 millones de casos positivos a la Covid-19 y en México, a la fecha, continúan las muertes sobrepasando las 324 mil (Dirección General de Epidemiología, 2022). Si bien el confinamiento resultó una buena medida preventiva para evitar el contagio, empeoró la salud mental y el sentido de pérdida del estilo de vida que se tenía previo a la pandemia (Maguiña Vargas et al., 2020). Aunque el contacto social se mantuvo por medio de la tecnología, la falta de contacto humano para sentirse en comunidad impactó las relaciones de amistad (Posada-Bernal et al., 2021) y conllevó rupturas amorosas (García, 2002); en tanto que el exceso de convivencia familiar 24/7 (Milena et al., 2021), trajo a casa la escuela (home schooling) limitando la acción parental en particular de las madres, al adicionar el acompañamiento académico de sus hijos (Arza, 2020) y el trabajo (home office) que condujo a mayores exigencias de desempeño, sin respetarse las horas de trabajo y temor a perder el empleo, lo que sí ocurrió en algunos casos (Moguel, 2021). Adicionalmente, en casos críticos dio paso a un incremento en la violencia familiar --de 52 mil llamadas de ayuda, aumentó a 64 mil—con independencia de la clase social (Escalera y Noriega, 2021; Observatorio Nacional Ciudadano, 2021).

Ahora bien, es importante distinguir que la pérdida y aceptación de la experiencia es personal y el proceso de duelo es único, idiosincrático: misma pérdida, distintos duelos. A este respecto, el término duelo tiene su origen en dos raíces latinas, dolus (dolor) y duellum (desafío). El dolor referiría a la reacción ante la pérdida, mientras que el duelo implicaría el desafío de procesar el dolor e involucra un movimiento de remodelación y reacomodo de la estructura, buscando representar la ausencia desde todos los ángulos posibles (Leader, 2011), hasta llegar a la aceptación

de la nueva realidad (Villegas, 2020). En el duelo, el dolor psíquico interfiere fisiológicamente presentándose entre otras reacciones, alteraciones orgánicas y trastornos del sueño y del apetito, entre otros (Maturana, 2008). Por otro lado, en relación pérdidas inesperadas, el duelo conlleva síntomas específicos de crisis (O'Connor, 2007), sentimientos de culpa (Fonnegra, 2015), consumo de drogas (Carreno y Pérez-Escobar, 2019), ansiedad y depresión (Blalock y Joiner, 2000), ataques de pánico, conductas agresivas e incluso suicidio (Grollman, 1986; Joiner et al., 2002; van Orden et al., 2006).

Sin embargo, tanto las pérdidas como los eventos estresantes también pueden llevar al crecimiento personal o crecimiento postraumático que resulta en una mayor fuerza personal, apertura a nuevas posibilidades en la vida, mayor conexión con otras personas y apreciación de la vida, y un cambio espiritual como resultado de su proceso de lucha ante una vivencia traumática (Calhoun y Tedeschi, 2006; Hamby et al., 2017, 2020; Khanna y Greyson, 2015). De ahí que, a mayor aceptación de la experiencia, mayor propósito y significado de vida (Wong, 2014, 2015) y mayor potencial para crecer (Görg et al., 2017; Shipherd y Salters-Pedneault, 2018).

En 2010, Holland et al. desarrollaron la Escala de Integración de Experiencias Estresantes (ISLES, por sus siglas en inglés), un instrumento multidimensional de 16 ítems para evaluar el grado en que un factor estresante intenso de la vida se incorpora adaptativamente al sistema de significado global del individuo. Después de demostrar su fortaleza psicométrica y como un robusto predictor de salud física y mental (Currier et al., 2013; Lichtenthal et al., 2011), en 2014 validaron una forma abreviada de seis ítems que también ha probado ser efectiva (Burke et al., 2015; Harris & Winokuer, 2019; Milman, Lee y Neimeyer, 2020; Milman, Lee, Neimeyer et al., 2020; Neimeyer, 2016).

Considerando que en México no se cuenta con una escala breve para evaluar en qué medida el individuo da significado a las pérdidas, se decidió llevar a cabo la traducción, validación y adaptación de la escala de Integration of Stressful Life Experiences Scale-Short Form (ISLES-SF) en la población de adolescentes y jóvenes mexicanos. Además, se evaluó la confiabilidad de la escala y la validez de constructo, correlacionando el ISLES con otras escalas relacionadas conceptualmente y validadas en español mexicano, similares a las utilizadas en el estudio original, así como las características demográficas. Finalmente, planteamos la hipótesis de que ISLES correlacionaría positivamente con las dimensiones de salud mental y con el crecimiento postraumático y tendría una correlación débil o nula con los factores sociodemográficos.

Método

Estudio instrumental para la validación del instrumento Integration of Stressful Life Experiences Scale–Short Form (ISLES-SF) al idioma español mexicano. El protocolo fue dictaminado y aprobado por la Comisión de Ética en Investigación en Psicología de la Escuela de Psicología de la Universidad de Monterrey (Ref. CEIP-1221-02 v2).

Muestreo

No probabilístico intencional debido a que los participantes, hombres y mujeres mexicanos, adolescentes y jóvenes, estudiantes de cursos introductorios de psicología con accesibilidad a dispositivos electrónicos y a una conexión de internet y que, además, hubieran pasado por una pérdida de un ser querido en los últimos dos años, similar a la muestra en que se validó la forma corta del ISLES. Los participantes pudieron elegir voluntariamente si deseaban formar parte del estudio. Los mayores de edad firmaban electrónicamente el consentimiento informado. En el caso de estudiantes, las instituciones educativas que facilitaron acceso a sus estudiantes contaban con el consentimiento previo de los padres de familia, firmando los directores el consentimiento para la aplicación general y los estudiantes un asentimiento electrónico para participar.

Para el análisis exploratorio y la validación convergente e incremental del instrumento, se conformó una muestra de 227 participantes, entre 17 y 25 años (M = 19.51, DT = 1.67), 127 mujeres (55.5 %), 99 hombres (43.6 %) y 1 (.004 %) otro; 55 (43.3 %) habían

perdido a un ser querido en los últimos dos años. Al resto se les dio la opción de elegir otros tipos de pérdidas que se presentaron con base en la literatura y que se hubieran vivenciado durante el confinamiento por la pandemia Covid-19, predominando las pérdidas social (56.8 %), económica (13.6 %), laboral (6.1 %) y académica (20.5 %).

Dado que la muestra inicial fue insuficiente para realizar el análisis confirmatorio, se aplicó el ISLES a una muestra de 550 adolescentes y jóvenes mexicanos entre 15 y 25 años de edad (M = 19.86, DT = 3.38); 332 (60.3 %) mujeres, 213 (38.7 %) hombres y 5 (0.9 %) otros, mayormente estudiantes (284, 85.5 %), 326 (98.2 %) estuvieron en México durante el confinamiento por el Covid-19 y 136 (41 %) perdieron a un ser querido durante esa temporalidad.

Instrumentos de medida

Se elaboró una encuesta en línea incluyendo el consentimiento informado y las escalas. Para la validación del ISLES-SF al español mexicano, se consideraron los dos de los instrumentos utilizados en la validación original de la escala breve.

Integration of Stressful Life Experiences Scale-Short Form (ISLES-SF)

La escala de Integration of Stressful Life Experiences Scale-Short Form (ISLES-SF), validada por Holland et al. (2014) evalúa el grado de adaptación de un individuo ante una pérdida o un evento estresante. Las puntuaciones más altas indican un significado más adaptativo de la pérdida. Las respuestas varían desde 1 = "Totalmente en desacuerdo" hasta el 5 = "Totalmente de acuerdo". Tiene dos subescalas: Comprensibilidad (C) y De Pie Ante al Mundo (PFM). En la validación de la versión breve se comprobó el modelo de dos factores previamente validado de ISLES, con cinco elementos cargados en el factor C y 11 elementos cargados en el factor PFM, con un buen ajuste [$\chi^2(103) = 384.564$, $p < .001$; CFI = .935; SRMR = .059; RMSEA = .061] y todas las cargas factoriales fueron estadísticamente significativas al nivel $p < .001$. Al construir el ISLES-SF, se seleccionaron los tres ítems de carga más alta en cada uno de los dos factores, que incluían los ítems 4, 6 y 8 para C y 9, 12 y 14 para PFM. En distintos estudios la confiabilidad de la escala total y las subescalas varía entre $\alpha = 0.76$ y $\alpha = 0.86$ (Holland et al., 2014; Milman, Lee y Neimeyer, 2020).

Inventario de Crecimiento Postraumático (PTGI)

El Post-Traumatic Growth Inventory es un autoinforme elaborado por Tedeschi y Calhoun (1996) y adaptado al español mexicano por Quezada-Berumen y González-Ramírez (2020). Sus 21 reactivos evalúan cambios positivos en relación con el trauma en una escala Likert de 6 puntos (0 = No experimenté este cambio como resultado de mi crisis a 5 = Experimenté este cambio en un grado muy grande como resultado de mi crisis). Se divide en cinco subescalas y para este estudio se utilizaron solo cuatro que mostraron buena confiabilidad: Relación con otros ($\alpha = .873$), Nuevas posibilidades ($\alpha = .740$), Fortaleza Personal ($\alpha = .773$), el inventario total ($\alpha = .928$) y un único ítem de Apreciación por la Vida.

Encuesta de Salud SF-36

Encuesta autoaplicada creada por McHorney et al. (1993) y validada al español mexicano por (Zúniga et al., 1999). Contiene 36 preguntas que en conjunto evalúan ocho aspectos de la calidad de vida en poblaciones mayores a 16 años de edad. Además, la SF-36 mide el concepto general de cambios en la percepción del estado de salud actual y la del año anterior, indicando mejoramiento o empeoramiento, preguntando "En general, ¿diría que su salud es: Mala, Regular, Buena, Muy buena". En el estudio tuvieron una buena confiabilidad tanto la escala total ($\alpha = .886$), como cada una de sus subescalas: función física ($\alpha = .871$), rol físico ($\alpha = .786$), dolor corporal ($\alpha = .669$), salud general ($\alpha = .797$), vitalidad ($\alpha = .796$), función social ($\alpha = .537$), rol emocional ($\alpha = .784$) y salud mental ($\alpha = .858$).

Procedimiento

Inicialmente se solicitó la autorización de los autores para su validación al español mexicano y posteriormente se inició con la traducción de la escala de Integration of Stressful Life Experiences Scale-Short Form in a Bereaved Sample (ISLES-SF) traducida al español mexicano por

seis intérpretes nativas. La retraducción al inglés fue llevada a cabo por una intérprete cuya primera lengua es el inglés. Se compararon ambas versiones y se resolvieron las inconsistencias.

Posteriormente un panel de expertos de cinco profesionales de la salud, maestros y doctores en psicología la Universidad de Monterrey, con conocimiento avanzado del idioma inglés y de lengua materna el español mexicano, validó el contenido en función de su comprensión, interpretación, representatividad y claridad, recomendando modificaciones menores en ítems 5 y 6. Una nueva retrotraducción para verificar la equivalencia conceptual se llevó a cabo concluyendo que ninguna de las diferencias en la formulación de las oraciones y en la elección de palabras alteraba el significado de los enunciados.

Después se condujo una prueba piloto y una entrevista cognitiva a un grupo reducido de 30 participantes, hombres y mujeres que después de contestar el ISLES, respondieron preguntas abiertas (Cavagnis y Zalazar-Jaime, 2018; Gibson et al., 2017; Ng et al., 2022; Scott et al., 2020; Smith y Molina, 2011; Willis, 2005; Willis y Artino, 2013) para evaluar si los elementos de cada ítem facilitan su comprensión, recuperación de información, estimación, elección y calificación de la respuesta. A través de preguntas como: "¿Qué pensaste cuando leíste el reactivo?" y "¿Cómo elegiste tu respuesta?", se exploró el significado de las palabras de elementos específicos, cómo se recupera la información relevante de la memoria autobiográfica y mediante qué proceso de decisión o juicio se concibió y realizó la respuesta.

Posteriormente, se llevó a cabo la administración de la encuesta con los tres instrumentos en el estudio para realizar el análisis factorial exploratorio y la validación convergente e incremental. Por último, se realizó una nueva aplicación de la forma corta del ISLES en español mexicano a una muestra mayor.

Análisis de los Datos

La validación de contenido se realizó mediante un panel de expertos y a través de una entrevista cognitiva con un grupo reducido de 30 participantes. Posteriormente revisamos datos perdidos y comprobamos la normalidad multivariante.

En primer lugar, se calcularon el índice de adecuación de la muestra de Kaiser-Meyer-Olkin y la prueba de esfericidad de Bartlett para valorar la viabilidad de realizar el análisis factorial. A continuación, se realizó un análisis de Máxima Verosimilitud con rotación Varimax. Finalmente, se realizó un análisis factorial exploratorio (CFE, por sus siglas en inglés) usando el método de componentes rotados dada la estructura bidimensional para el análisis estadístico de los reactivos, identificar los factores y verificar su congruencia con la escala original.

El ajuste del modelo del análisis factorial confirmatorio (CFI, por sus siglas en inglés) se examinó usando χ^2, estadísticas, el χ^2 normal (χ^2/df), el error cuadrático medio de aproximación (RMSEA; Steiger, 2009) y el índice de ajuste comparativo (CFI (Hu y Bentler, 2009). El ajuste del modelo se evaluó como bueno cuando mostraron coeficientes χ^2 no significativos, una relación χ^2/gl inferior a 3.0, coeficientes CFI y RMSEA respectivamente inferiores a 0.08 y superiores a 0.95. Después, se calculó la confiabilidad de la escala utilizando el coeficiente de Alfa de Cronbach para obtener el análisis de fiabilidad; las correlaciones de Pearson para determinar la validez de constructo de la versión mexicana del ISLES y análisis de regresión para la validación incremental con la primera muestra.

Resultados

A partir de la entrevista cognitiva se concluyó que no hubo confusión acerca del formato, instrucciones ni opciones de respuesta. El ítem 1 –"Tengo dificultades para integrar este evento en mi forma de entender el mundo"– fue el único que presentó dificultad al momento en que los participantes reflexionaron sobre los pensamientos subyacentes a la afirmación. Al tratarse de una posible saliencia de muerte, una manera de protegerse de un inesperado y amenazante contenido (Clark y Beck, 2012; Greenberg et al., 2000; Vickers, 2007), en particular sobre su autoestima y su visión del mundo (Klackl y Jonas, 2019; Poppelaars et al., 2020; Webber et al., 2015), por lo cual se decidió dejar el ítem como se presentaba.

Tabla 1

Media, desviación estándar, asimetría, curtosis, correlación ítem-total, alfa de Cronbach si se elimina el ítem, cargas factoriales y comunalidades

Ítems	Media	Desviación Típica	Asimetría	Curtosis	R TC-c	α sin ítem	Carga factorial	h^2
1	3.549	1.241	-0.187	-1.238	0.518	0.849	0.838	1.539
2	3.659	1.231	-0.341	-1.250	0.575	0.849	0.774	1.516
3	3.055	1.369	-0.021	-1.200	0.537	0.849	0.543	1.875
4	3.868	1.360	-0.840	-0.669	0.721	0.849	0.941	1.849
5	3.967	1.303	-0.923	-0.501	0.722	0.849	0.850	1.699
6	3.593	1.483	-0.520	-1.249	0.721	0.849	0.812	2.200

Análisis factorial

Inicialmente, se calcularon el índice de adecuación de la muestra de Kaiser-Meyer-Olkin (KMO = 0.738) y la prueba de esfericidad de Bartlett [$\chi^2(15) = 329.13$, $p < .001$], indicando la viabilidad de realizar el análisis factorial.

A continuación, se realizó un análisis de Máxima Verosimilitud con rotación Varimax que indicó un ajuste bifactorial. En el primer factor se agruparon los ítems 4, 5 y 6 denominado como De Pie ante el Mundo que explica el 57.33 % de la varianza y en el segundo factor se agruparon los ítems 1, 2 y 3 nombrado Comprensibilidad explicando el 21.56 % de la varianza, con un tamaño del efecto grande ($\eta^2 = 78.89$ %).

Análisis Factorial Exploratorio

Para esta fase, siguiendo el modelo de validación original, inicialmente se utilizó la muestra de 91 participantes que cumplieron con el criterio de haber perdido un ser querido.

Las propiedades psicométricas y las cargas factoriales se presentan en la Tabla 1. El alfa de Cronbach de la escala fue de .849 indicando una excelente fiabilidad interna. Los indicadores de asimetría y curtosis fueron adecuados dentro del rango + 1.5 (Ferrando y Anguiano-Carrasco, 2010). Asimismo, la correlación ítem-test es óptima (> .5) para todos los ítems (DeVellis, 2012) y el coeficiente alfa sin ítem es buena (>. 8) en tanto que los pesos factoriales fluctuaron entre .543 a .941. Por último, las comunalidades (h^2) que explican el factor sobrepasan 1.5.

Posteriormente, también siguiendo con el tratamiento de los datos en la validación original, se trabajó con la muestra total de 227 participantes y los ítems volvieron a mostrar un buen ajuste: KMO = .744 y una prueba de esfericidad de Bartlett estadísticamente significativa [$\chi^2(15) = 601.77$, $p < .001$]. El primer factor De Pie ante el Mundo explica el 53.75 % de la varianza y el segundo Comprensibilidad, el 19.43 %, para una $\eta^2 = 73.61$ %. Las

Tabla 2

Media, desviación estándar, asimetría, curtosis, correlación ítem-total, alfa de Cronbach si se elimina el ítem, cargas factoriales y comunalidades

Ítems	Media	Desviación Típica	Asimetría	Curtosis	R TC-c	α sin ítem	Carga factorial	h^2
1	3.595	1.111	-0.241	-0.927	0.546	0.824	0.713	1.223
2	3.872	1.116	-0.613	-0.706	0.516	0.824	0.707	1.245
3	3.181	1.346	-0.158	-1.127	0.489	0.824	0.586	1.812
4	3.784	1.308	-0.672	-0.805	0.657	0.824	0.902	1.710
5	3.881	1.237	-0.706	-0.740	0.690	0.824	0.774	1.530
6	3.498	1.428	-0.419	-1.215	0.670	0.824	0.736	2.039

propiedades psicométricas fueron buenas con un alfa de Cronbach de .824 y las cargas factoriales quedaron entre .586 (I3) - .902 (I4), en tanto que las comunalidades están por arriba de 1.2. Las propiedades psicométricas y las cargas factoriales se presentan en la Tabla 2. El alfa de Cronbach de la escala fue de .824 indicando una excelente fiabilidad interna.

Validez de constructo

Para obtener la validez de constructo para determinar si este conjunto de pruebas comparten factores indirectos pero observables, en este caso del grado de adaptación de un individuo ante una pérdida o un evento estresante (Rebellon, 2021). Para ello se obtuvieron las medias totales de las tres escalas, así como las de sus respectivos factores. Asimismo, se incluyeron los demográficos de edad, género, escolaridad y ocupación, para posteriormente utilizar el análisis de correlación bivariada de Pearson. Los resultados se muestran en la Tabla 3.

Como se esperaba y de manera similar al estudio original, el ISLES correlacionó positivamente con todas las subescalas de la Encuesta de Salud SF-36, aunque las asociaciones fueron débiles con la función y rol físicos y con la apreciación por la vida. La subescala de Comprensibilidad se asoció significativamente solo con el total de SF-36 y el resto de las subescalas con excepción de la función y el rol físicos, en tanto que las correlaciones con dolor corporal salud general y función social fueron débiles. Finalmente, la subescala de Pie Ante el Mundo prácticamente correlacionó tanto con las escalas y sus subescalas con excepción de Nuevas Posibilidades del PTGI. Con esta misma escala las correlaciones fueron débiles, lo mismo que con la función y el rol físicos y el dolor corporal.

Tabla 3

Correlaciones bivariadas r de Pearson entre las variables en estudio

Variable	*ISLES-SF*	*C*	*PM*
Edad	-0.075	-0.111	-0.048
PTGI Total	0.098	-0.025	0.173**
PTGI: Relación con otros	0.080	-0.044	0.160**
PTGI: Nuevas posibilidades	0.040	-0.056	0.108
PTGI: Fortaleza Personal	0.110	0.036	0.142*
PTGI: Apreciación por la vida	0.190**	0.034	0.269***
SF-36 Total	0.418***	0.304***	0.403***
SF-36: Función Física	0.154*	0.130	0.133*
SF-36: Rol Físico	0.173**	0.125	0.167**
SF-36: Dolor Corporal	0.215**	0.182**	0.186**
SF-36: Salud General	0.229***	0.147*	0.237***
SF-36: Vitalidad	0.320***	0.221***	0.317***
SF-36: Función Social	0.320***	0.182**	0.351***
SF-36: Rol Emocional	0.347***	0.236***	0.347***
SF-36: Salud Mental	0.456***	0.353***	0.422***

Nota. ISLES-SF = Integration of Stressful Life Experiences Short Form; C = Compresibilidad; PM = De Pie ante el Mundo; PTGI: Inventario de Crecimiento Postraumático; SF-36: Escala de Salud SF-36.
** p < .05. ** p < .01. *** p < .001.*

Validez Incremental

Por último, se realizó un análisis de validez incremental con el objetivo de determinar en qué grado las escalas de ISLES-SF y la Escala de Salud SF-36 evalúan el nivel de adaptación de un individuo ante una pérdida o un evento estresante. Inicialmente se realizaron regresiones lineales con los factores que componen la escala SF-36 fueron considerados como variables dependientes y los factores que devienen de la escala ISLES-SF como variables independientes.

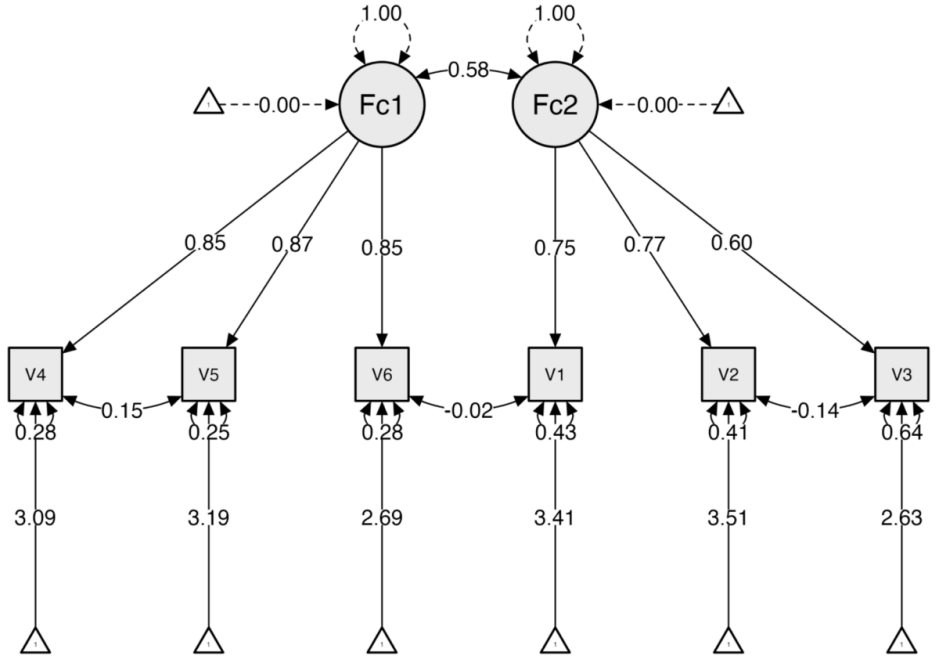
Controlando con estas variables, el ISLES-SF predice significativamente: Función Física (ISLES-SF: $\Delta R2 = 0.023$, $\beta = 0.153$, $p = .021$), Rol Físico (ISLES-SF: $\Delta R2 = 0.030$, $\beta = 0.173$, $p = .009$), Dolor Corporal (ISLES-SF: $\Delta R2 = 0.046$, $\beta = 0.215$, $p = .001$), Salud General (ISLES-SF: $\Delta R2 = 0.052$, $\beta = 0.229$, $p < .001$), Vitalidad (ISLES-SF: $\Delta R2 = 0.102$, $\beta = 0.319$, $p < .001$), Función Social (ISLES-SF: $\Delta R2 = 0.102$, $\beta = 0.320$, $p < .001$), Rol Emocional (ISLES-SF: $\Delta R2 = 0.120$, $\beta = 0.346$, $p < .001$), Salud Mental (ISLES-SF: $\Delta R2 = 0.207$, $\beta = 0.455$, $p < .001$).

Análisis Factorial Confirmatorio

Nuevos datos del ISLES de 550 adolescentes y jóvenes mexicanos, se destinaron a realizar un análisis factorial confirmatorio para confirmar su estructura bidimensional. En primer lugar, se calculó la asunción de normalidad. Tanto la asimetría (-.509) como la curtosis (-.437) fueron adecuadas por lo que se procedió a estimar los índices del modelo con dos factores, los cuales mostraron un ajuste aceptable [$\chi2(5) = 23.177$, $p < .001$, CFI = .988, TLI =

Figura 2

Diagrama de Flujo del Modelo de Análisis Factorial Confirmatorio del ISLES que muestra los dos factores, las correlaciones y las medias



Nota. Fc1 = Factor 1, De Pie Ante el Mundo; Fc2 = Factor 2, Comprensibilidad

.964; RMSEA (90% CI) = .081 (.050–.116), p = .050; SRMR = .030], los cuales se encuentran dentro de los límites aceptables para este tipo de modelos (Blunch, 2013; Ghorbanhosseini, 2013; Hu y Bentler, 2009). La fiabilidad interna también fue satisfactoria para ISLES total (α = .837) y para las subescalas de Comprensibilidad (α = .718) y De Pie Ante el Mundo (α = .894). En la Figura 1 se muestra el diagrama de flujo (path diagram) del modelo de análisis factorial confirmatorio con las 6 variables y los 2 factores.

Discusión

En este estudio se ha validado al español mexicano la versión breve de la escala ISLES (Integration of Stressful Life Experiences Scale-Short Form), siguiendo el protocolo de traducción, retrotraducción, panel de expertos, pilotaje y entrevista cognitiva para garantizar su equivalencia lingüística y conceptual (Carretero y Pérez, 2005; Gibson et al., 2017; Scott et al., 2020; Smith y Molina, 2011; Willis, 2005; Willis y Artino, 2013). Posteriormente, se llevaron a cabo los análisis de ítems, fiabilidad y validez, en dos estudios independientes con adolescentes y jóvenes, con pérdidas de seres queridos durante la pandemia por Covid-19 y con otro tipo de pérdidas.

En general, los resultados se comportaron de forma adecuada, apoyando el uso de la adaptación de la escala de (ISLES-SF) al español mexicano (Blunch, 2013; Ghorbanhosseini, 2013; Hu y Bentler, 2009), considerando el buen ajuste del modelo del análisis confirmatorio y la satisfactoria fiabilidad interna tras realizar el análisis estadístico de los ítems.

Los análisis factoriales corroboraron la estructura del ISLES-SF, conformada por dos factores: De Pie ante el Mundo y Comprensibilidad. La primera da cuenta del significado logrado a partir de las acomodaciones y el procesamiento del evento, mientras la segunda refiere a la capacidad de asimilarlo y darle sentido (Holland et al., 2010, 2014). Asimismo, se encontró que existe congruencia entre los factores de la escala ISLES-SF traducida al español mexicano y las escalas utilizadas para comprobar la validez de constructo (convergente): el Inventario de Crecimiento Postraumático (PTGI) y la Escala de Salud (SF-36). En cuanto a la validez incremental, los análisis de regresión comprobaron que tanto la adaptación al español del ISLES-SF como la escala SF-36 predicen y explican la adaptación que tiene una persona a un evento estresante, como lo es una pérdida. Todo esto es de suma importancia ya que en distintos estudios se ha reportado que la pérdida con significado adaptativo es crucial para adaptarse al duelo y a cualquier otra situación estresante o adversa (Holland et al., 2014; Milman, Lee y Neimeyer, 2020; Milman, Lee, Neimeyer, et al., 2020; Neimeyer y Sands, 2021; Quiroga-Garza et al., 2021).

Adicionalmente, emergieron dos hallazgos importantes, el primero referido al fenómeno de saliencia de muerte. Holland et al. (2010, 2014) en sus validaciones habían señalado que el instrumento por su temática podía llevar a la persona a tomar conciencia acerca de la propia muerte, es decir, provocar la saliencia de muerte. Los reactivos de la escala refieren al afrontamiento de duelos por pérdidas por lo que se activa la saliencia de muerte, es decir, un esfuerzo por evitar la angustia que provocan los pensamientos relacionados a la mortalidad humana. En nuestro estudio esta situación se evidenció a partir de la entrevista cognitiva con el ítem 1. El impacto inicial activó las defensas proximales de naturaleza racional, fijando la atención en el propio estado de salud y atender al mismo tiempo preguntas sobre la muerte o pérdida de alguien significativo, aunado a las defensas distales sostenidas en una visión cultural del mundo y una evaluación trascendente y significativa de la participación personal y social (Pyszczynski et al., 2015b) en la cultura y sus valores (Lara y Osorio, 2014). La recuperación del bloqueo inicial puede estar asociada con la trivialización de la propia vulnerabilidad a la muerte (Arndt et al., 2004; Pyszczynski et al., 1999, 2015a), ya que en México se han desarrollado distintos rituales de evitación y ocultamiento para la autopreservación frente a este tema que dan una perspectiva colectiva de la muerte como un suceso poco temido y no traumático (Campos y Espinosa, 2016; Mondragon-Sanchez et al., 2020). Es importante tomar en cuenta que eventos que pongan en riesgo la mortalidad de los humanos, y que mantengan a flor de piel los pensamientos acerca de la propia muerte, requieren un mayor esfuerzo colectivo para evitar los sentimientos

negativos que derivan de estos (Campos y Espinosa, 2016). Por lo que es de esperarse que ante la angustia derivada de una pandemia mundial como la fue el Covid-19 la sociedad se viera obligada a modificar su visión cultural del mundo, magnificó su saliencia de muerte.

El segundo hallazgo refiere a las respuestas de los participantes que no reportaron haber vivido la pérdida de un ser querido en los últimos dos años, eligiendo otro tipo de pérdidas con predominio de las sociales (Mora, 2021; Sánchez, 2021; Sánchez-Villena y de La Fuente-Figuerola, 2020), económicas (Berinato, 2020), laborales (Feix, 2020) y académicas (García, 2021; Singh et al., 2020) vivenciadas durante el tiempo de confinamiento por Covid-19 en México y que, de acuerdo a los resultados, siguen el mismo proceso de significación a las pérdidas.

Entre las limitaciones de la presente investigación se destaca la falta de diversidad de niveles socioeconómicos dada la ausencia de respuesta y participación de instituciones educativas del sector público y rural, así como de adultos mayores y de personas que experimentaron la pérdida de un familiar inmediato. Además, se imposibilita establecer causalidad o relaciones temporales al tratarse de autoinformes y un diseño transversal del estudio. A pesar de estas limitaciones, los resultados proporcionan evidencia del vínculo entre el significado de la pérdida y el funcionamiento de la salud física y mental que aportan a la creciente literatura de que tanto las pérdidas como los eventos estresantes pueden llevar al crecimiento personal al encontrar aceptación, propósito y significado de vida a partir de su proceso de lucha ante una pérdida o vivencia traumática (Calhoun y Tedeschi, 2006; Görg et al., 2017; Hamby et al., 2017, 2020; Shipherd y Salters-Pedneault, 2018; Wong, 2010, 2017).

Consideraciones Finales

La Escala de Integración de Eventos Estresantes de Vida-Versión Corta, representa la primera validación de la escala Integration of Stressful Life Experiences Scale-Short Form (ISLES-SF) al español mexicano, y permite identificar los factores que contribuyen al proceso de una adaptación ante la pérdida, no solo de seres queridos, sino de otro tipo de pérdidas, como las experienciadas durante la pandemia por Covid-19; así como su asociación con aspectos de salud física y crecimiento postraumático.

Futuros estudios podrían beneficiarse de este instrumento validado en el contexto específico mexicano, por lo que se recomienda seguir investigando si la manera de procesar los duelos es similar en la adolescencia temprana, en adultos jóvenes, maduros y mayores ya que es posible que tanto el desarrollo psicoemocional y la experiencia de vida jueguen un papel importante.

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ESTABILIDAD DIAGNÓSTICA DEL TRASTORNO BIPOLAR. UNA REVISIÓN SISTEMÁTICA

DIAGNOSTIC STABILITY IN BIPOLAR DISORDER. A SYSTEMATIC REVIEW

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Resumen

Introducción. El Trastorno Bipolar (BD) es un trastorno mental grave y recurrente. Al realizar un seguimiento longitudinal de estos pacientes, un cambio en el diagnóstico podría indicar una progresión del curso de la enfermedad o una falta previa de precisión diagnóstica. Son pocas las investigaciones que han evaluado el impacto de la estabilidad diagnóstica vs su cambio. Material y Métodos. Se realizó una revisión sistemática mediante búsqueda bibliográfica en Pubmed, MedLine y Web of Science de artículos publicados hasta la fecha. Se seleccionaron aquellos estudios que se centraban en el estudio de la estabilidad diagnóstica en el tiempo del trastorno bipolar tanto en adultos como en niños o adolescentes. Resultados. La búsqueda inicial mostró un total de 323 artículos, de los cuales ocho cumplieron los criterios de inclusión. Hemos encontrado que, en comparación con otros trastornos mentales, en el BD se observa una mayor validez de constructo y estabilidad a largo plazo. los estudios coinciden en la estabilidad de alrededor del 90 % o más en el diagnóstico del BD tanto en población infantil como adulta. Conclusiones: El Trastorno Bipolar en su fase inicial constituye un desafío diagnóstico y terapéutico. Pese a ello, se considera una de las categorías diagnósticas más estables en Salud Mental. La ausencia de instrumentos fiables y válidos para el diagnóstico es considerada una limitación, que condiciona el curso y evolución de la enfermedad. Para investigaciones futuras es importante conseguir la mayor validez posible como constructo del BD.

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Palabras clave: trastorno bipolar; estabilidad; revisión sistemática; trastornos del estado de ánimo; diagnóstico.

Abstract

Introduction: Bipolar Disorder (BD) is a serious and recurring mental illness. When following patients with bipolar disorder (BD) longitudinally, a diagnostic change might indicate either a progression of illness course or a prior lack of diagnostic precision. Few investigations have evaluated the impact of diagnostic stability versus its change. Material and methods: A systematic review was carried out through a bibliographic search in Pubmed, Medline and Web of Science of articles published to date. Those studies that focused on the study of the diagnostic stability of BD both in adults and in children or adolescents were selected. In addition, a review of the gray literature was carried out. Results: The initial search showed a total of 323 articles, of which eight met the inclusion criteria. We have found that bipolar disorder has higher construct validity and long-term stability than other mental disorders. the studies coincide in the stability of around 90 % or more in the diagnosis of BD in both the child and adult population. Conclusions: Bipolar Disorder in its initial phase constitutes a diagnostic and therapeutic challenge. Despite this, it is considered one of the most stable diagnostic categories in Mental Health. The absence of reliable and valid instruments for diagnosis is considered a limitation, which determines the course and evolution of the disease. For future research it is important to achieve the highest possible construct validity of the BD.

Keywords: Bipolar disorder; stability; systematic review; mood disorders; diagnosis.

Introducción

El trastorno bipolar (BD) es un trastorno del estado de ánimo persistente y perjudicial asociado con una alta carga de salud pública (Crump et al., 2013; Eaton et al., 2008; Kessler et al., 2007). La prevalencia mundial del BD es de aproximadamente el 1-2 %, independientemente del grupo étnico (Alloy et al., 2005; Craddock y Sklar, 2013). Además, el BD representa la quinta causa de discapacidad en las personas de 15 a 44 años (World Health Organization, 2011) y su estudio epidemiológico se ve dificultado por las diferencias en los criterios diagnósticos expuestos en los principales manuales de clasificación (DSM, CIE). Sin embargo, para minimizar estas diferencias, el BD tipo II, previamente definido en el DSM-5 (American Psychiatric Association, 2013), también ha sido incluido en la CIE–11 (World Health Organization, 2018).

El diagnóstico de los trastornos mentales se basa en criterios exclusivamente clínicos; ningún hallazgo genético, bioquímico, neuroanatómico o neurofisiológico proporciona información relevante en los procesos de diagnóstico. Esta situación ha dado lugar a un importante debate sobre la validez conceptual de los criterios diagnósticos actuales, no exentos de controversia e interpretación (Cano-Ruiz et al., 2020). Una dificultad diagnóstica adicional en niños y adolescentes es la superposición de síntomas del TDAH o de otros trastornos del neurodesarrollo y de los episodios de manía o mixtos del BD (Bień et al., 2022).

Gran parte de la literatura científica se basa en los criterios de la Asociación Americana de Psiquiatría (APA), que son puramente clínicos. A pesar de esto, la manía es hoy uno de los más conceptos específicos de la nosología psiquiátrica (Ghaemi et al., 2022). De acuerdo con los Criterios DSM-5, el BD constituye un espectro de trastornos del estado de ánimo (Sekhon y Gupta, 2022).

La estabilidad diagnóstica se ha definido como el grado en que se confirma un diagnóstico en evaluaciones consecutivas (Cano-Ruiz et al., 2020). En ausencia de sintomatología biológica objetiva del trastorno, la estabilidad diagnóstica a lo largo del tiempo representa la mejor prueba para validar los diagnósticos psiquiátricos y puede utilizarse en gran medida para predecir el curso del trastorno (Laursen et al., 2020).

Se han propuesto diferentes métodos para mejorar la estabilidad del diagnóstico, aunque ninguno de ellos asegura la fiabilidad del resultado, que incluyen la evaluación u observación longitudinal (Chen y Dilsaver, 1996; Marneros et al., 1991), los estudios de diagnóstico genético

avanzado (Dudley et al., 2016), la monitorización de la respuesta al tratamiento (Blacker y Tsuang, 1992) o la evaluación de los efectos sobre la función psicosocial de la enfermedad (Goodwin, 2007).

La realización de un diagnóstico y de una intervención precoz es esencial para mejorar el pronóstico de los pacientes con BD (Berk et al., 2010). Sin embargo, el tiempo promedio de demora para el diagnóstico de esta patología se aproxima a los diez años (Baldessarini et al., 2006). En el BD, la baja especificidad de los pródromos iniciales (Andrade-González et al., 2020; Conus et al., 2008; Skjelstad et al., 2010) hace que la prevención de un primer episodio de la enfermedad sea un auténtico reto. En cuanto a los pródromos de recaídas, las guías clínicas recomiendan distintos procedimientos para reconocerlos (Malhi et al., 2015; National Institute for Health and Care Excellence, 2020) pero su implementación en la práctica clínica habitual es deficiente (Merikangas et al., 2011).

En lo que respecta al BD, la consistencia diagnóstica se encuentra en un rango del 49.7-96.5 % (Fraguas et al., 2008; Ruggero et al., 2010; Salvatore et al., 2011; Schimmelmann et al., 2005), y la mayor parte el cambio diagnóstico evoluciona hacia el espectro de la esquizofrenia (Kessing, 2005; Schwartz, 2000). Estudios recientes de genética, neuroanatomía y neurofisiología de los trastornos psicóticos y los trastornos afectivos bipolares muestran superposiciones significativas entre ambos grupos (Pouchon et al., 2022; Wei et al., 2022; Yan et al., 2022), y no es posible establecer una delimitación neurobiológica clara entre ellos. A través de estudios de seguimiento se ha observado que un episodio psicótico agudo puede ser el inicio de un diagnóstico posterior de evolución crónica de trastorno psicótico o afectivo (Gil-Berrozpe et al., 2022).

Ante la relevancia de esta patología y el aumento de la importancia del diagnóstico precoz de esta patología, se plantea realizar una revisión sistemática sobre el tema, para evaluar en mayor profundidad el estado de este, con la finalidad de identificar más fácilmente síntomas prodrómicos, evitar realizar diagnósticos erróneos o tardíos, y así disminuir el tiempo hasta el correcto tratamiento. En consecuencia, el objetivo principal de esta revisión sistemática es proporcionar información sobre la estabilidad diagnóstica del trastorno bipolar. Los objetivos secundarios son determinar los trastornos en los que existe menor solidez en el diagnóstico y determinar las dificultades en el diagnóstico de los pacientes con BD en infancia y adolescencia.

Método

Materiales

Examinamos la literatura publicada sobre la estabilidad en el diagnóstico del trastorno bipolar. El informe de la revisión sistemática cumple con los elementos de informe y se siguieron las recomendaciones Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA; Moher et al., 2009). La declaración (PRISMA) se desarrolló para facilitar el informe transparente y completo de las revisiones sistemáticas y se ha actualizado para reflejar los avances recientes en la metodología y la terminología de las revisiones sistemáticas (Page et al., 2021).

Criterios de selección de estudios

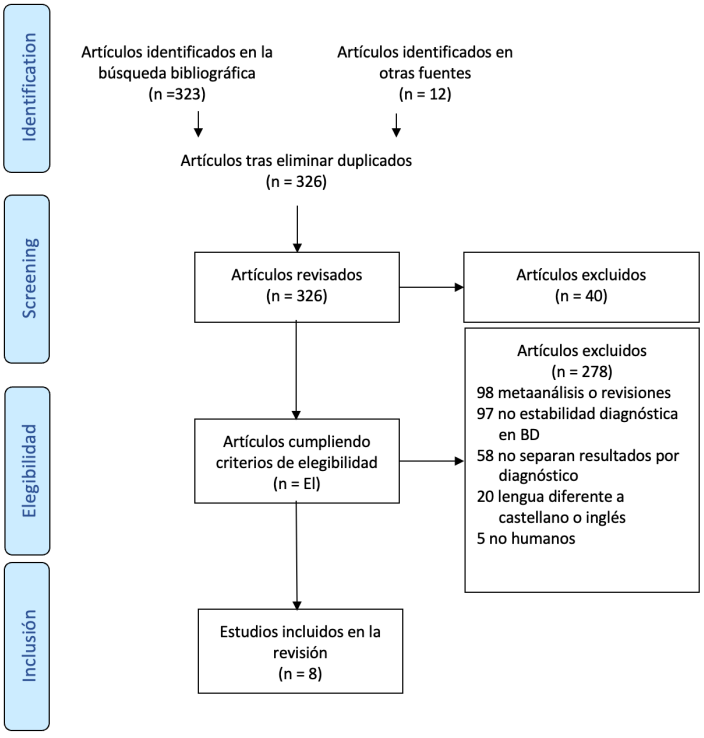
Los criterios de inclusión de los estudios fueron los siguientes: (1) investigaciones centradas en la estabilidad diagnóstica del BD, (2) publicaciones en lengua inglesa o española y (3) participación de pacientes con diagnóstico inicial de episodio maniaco o depresivo, independientemente de la edad de inicio. Los criterios de exclusión fueron: (1) estudios de revisión o metaanálisis, (2) estudios que versen sobre la estabilidad del BD, (3) artículos que incluyan pacientes con otros diagnósticos además del BD y que no separen los resultados en función de tales diagnósticos, (4) trabajos con pacientes que no cumplan los criterios DSM o CIE para el diagnóstico de BD; y (5) trabajos que incluyan población infantil y que no separen los resultados por edad.

Estrategia de búsqueda

Se realizaron búsquedas en las bases de datos PsycInfo, Web of Science y PubMed hasta el 20 de enero de 2022. La estrategia de búsqueda en cada una de estas bases de

Figura 1

Diagrama PRISMA que ilustra el proceso de selección de artículos de la revisión sistemática



datos fue la siguiente: ("Bipolar disorder" OR "Manic depres*" OR "affective/mood disorders" OR "manic state*" AND stability AND diagnosis). También se realizó una búsqueda de literatura gris y además se incluyeron artículos sobre estabilidad diagnóstica tanto en primeros episodios afectivos y psicóticos. Tras la lectura completa de los artículos seleccionados, se revisaron nuevamente los criterios de inclusión y también se revisaron las referencias contenidas en cada artículo con la intención de añadir aquellas que no fueron identificadas en la búsqueda bibliográfica.

Proceso de extracción de datos de cada estudio

Se extrajo la siguiente información de cada uno de los artículos seleccionados: autor/es, año de publicación, país, tamaño de la muestra, tipo de estudio. diagnóstico inicial, criterios diagnósticos, media de edad, y variable de estudio, y se incluye en la Tabla I. La calidad de los estudios fue evaluada mediante la Critical Appraisals Skills Programme checklist (CASP, 2019).

Resultados

Ocho estudios originales que cumplieron los criterios de inclusión fueron seleccionados. El proceso de selección de estos trabajos se describe en la Figura 1, y sus características principales se presentan en la Tabla 1. Estos trabajos incluyeron a un total de 5813 pacientes; según los datos disponibles ($k = 8$) su edad media ponderada fue de 39.87 años. Los pacientes que experimentaron pródromos iniciales fueron 754; su edad media ponderada fue de 23,01 años

Tabla 1

Características principales de los estudios primarios

Autor/año	Muestra	Tipo de estudio	Diagnóstico inicial	Criterios diagnósticos	Edad media	Tiempo de seguimiento
Alavi (2014)	485	Estudio de cohortes	TDM	DSM-IV-TR	38.6±12.7	6 meses
Dudek (2013)	122	Observacional retrospectivo	Episodio depresivo	CIE-9/10	39.8±10.9	17.1±7 años
Escamilla et al. (2011)	38	Observacional retrospectivo	Episodio depresivo o maniaco	DSM-IV-TR	14.8±1.9	2.6 años
Kessing et al. (2005)	4116	Observacional retrospectivo	Episodio depresivo o maniaco	CIE 10	n/e	8 años
Kessing et al. (2015)	354	Observacional retrospectivo	Episodio maniaco	CIE 10	14.4±8	4 años
Laursen et al. (2020)	519	Observacional prospectivo	BD	CIE 10	10,9± 2.7	3 años
Ribeiro-Fernández et al. (2019)	72	Observacional retrospectivo	BD	DSM-IV	10,5± 3.2	15 años
Salvatore (2013)	107	Prospectivo naturalístico	TDM con síntomas psicóticos	SCID, DSM-IV	31.7±13.7	Variable (2 o más años)

(k =7). El seguimiento total de los pacientes fue de 619 meses. Cinco de los estudios fueron observacionales retrospectivos, uno de ellos prospectivo, uno naturalístico y uno de cohortes.

Durante el proceso de búsqueda para la presente revisión se constató que el número de estudios sobre la estabilidad diagnóstica del BD son escasos, y se centran más en los casos de primeros episodios psicóticos, como en el caso de Heslin et al. (2015) y Pope et al. (2021). La escasez de estudios sobre la estabilidad diagnóstica en el BD, se hace incluso mayor cuando se trata de investigar el impacto de esta a lo largo del tiempo, o la relación entre los diferentes diagnósticos.

Alavi et al. (2014) estudian la estabilidad diagnóstica de la patología psiquiátrica más prevalente, se trata de un estudio de cohortes prospectivo y retrospectivo llevado a cabo en Irán. Este estudio encontró que el diagnóstico más estable es el BD con un 71 % consistencia prospectiva y un 69.4 % de retrospectiva.

Dudek et al. (2013) realizaron un análisis retrospectivo de la evolución a largo plazo de una muestra de 122 pacientes con diagnóstico inicial de episodio depresivo, y observaron un cambio diagnóstico a BD hasta en un 32.8 % de la muestra, con un tiempo de conversión diagnóstica de aproximadamente 9 años, es decir, un retraso en el diagnóstico de este tiempo. Encontraron que existe una correlación negativa entre la edad de inicio y conversión diagnóstica, además de una peor respuesta al tratamiento y mayor número de hospitalizaciones necesarias.

Salvatore et al. (2011) realizaron un estudio de 107 pacientes con diagnóstico inicial de trastorno depresivo con síntomas psicóticos, a los que se siguió durante una media de 4 años. El 18.7 % de la muestra experimentó un cambio diagnóstico a BD y el 11.2 % a trastorno esquizoafectivo. Se observó que la presencia inicial de características típicamente asociadas a BD o psicosis no afectiva, fueron predictivas de cambio diagnóstico tardío a BD o trastorno esquizoafectivo, lo que destaca la importancia de

los detalles psicopatológicos como fuente de mejora de los criterios diagnósticos y en segundo lugar del pronóstico de enfermedades tan graves como las mencionadas

Escamilla et al. (2011) realizaron un estudio en muestra española. Como hipótesis inicial del estudio plantearon un posible infra diagnóstico del BD en niños y adolescentes debido a la presencia de diferencias fenomenológicas con respecto a los adultos. La irritabilidad es el síntoma más prevalente en niños, así como en otras patologías concomitantes (Soutullo et al., 2005). Parte de la dificultad, añadida a la diferente fenomenología, es el complejo patrón de ciclación o patrón de cronicidad reportado. Encontraron un peor pronóstico en el BD bipolar pediátrico respecto al de adultos adultos (DelBello y Geller, 2001; Geller y Tillman, 2005; Strober et al., 1995). Se realizó un seguimiento de una muestra de 38 pacientes, empleando los criterios diagnósticos del manual de diagnóstico y estadístico de trastornos mentales DSM-IV. El 44.7 % de los pacientes fueron diagnosticados de BD tipo I; el 5.3 % de trastorno bipolar tipo II y el 50 % de trastorno bipolar no especificado. Tras 2.6 años de seguimiento, aproximadamente 2/3 de los pacientes mantuvieron el diagnóstico de BD.

Dentro de la muestra, el 100 % de los pacientes con diagnóstico concomitante con TDAH precisaron ingreso hospitalario, solamente el 50 % requirieron ingreso el grupo de pacientes que no presentaban un TDAH concomitante. La respuesta al tratamiento era menor conforme era menor la edad del paciente, (60.5 %). El 60.5 % de la muestra con una buena respuesta al tratamiento habían recibido tratamiento antidepresivo previamente, mientras que solamente el 44 % de los niños con escasa respuesta habían recibido previamente tratamiento antidepresivo.

El estudio realizado por Kessing et al. (2015) es el primer estudio que evalúa la estabilidad diagnóstica del BD en población pediátrica. Esta investigación incluyó una muestra de 354 pacientes, pertenecientes a la red pública de salud danesa, cumpliendo el criterio de tratarse de menores de 19 años y con un diagnóstico de episodio maniaco o BD, durante el periodo de estudio de la muestra. La prevalencia actual de manía o el trastorno bipolar en población pediátrica en 2010 era aproximadamente del 0.003 % para ambos sexos. No se observaron diferencias de edad en cuanto al diagnóstico según el sexo del paciente. El 41.7 % de pacientes fueron tratados en entorno ambulatorio, mientras el 58.3 % lo hicieron en condiciones de hospitalizaron. La edad media de inicio de contacto fue 17.4 años. Durante las fases de seguimiento de los pacientes, el 79.6 % presentaba un diagnóstico primario de trastorno bipolar, y esa proporción permanecía bastante estable durante las fases siguientes del seguimiento. Los trastornos somatomorfos y de ansiedad aumentaron a un 9.1 % durante la fase última fase del seguimiento, mientras que otros diagnósticos con una prevalencia del 5 % o menor se mantuvieron estables.

Una gran proporción de pacientes presentaron un diagnóstico inicial de episodio depresivo (22.9 %) en una primera valoración, sin embargo, ese diagnóstico iba asociado a un episodio psicótico (14.8 %) y el 4.3 % tuvieron un diagnóstico de Trastorno psicótico no especificado. Solamente el 1.4 % presentaron un diagnóstico de esquizofrenia en la primera valoración. Una proporción del 19.5 % presentó un diagnóstico de Trastorno somatomorfo, aunque el mayor porcentaje diagnóstico en la muestra era el trastorno adaptativo (14.8 %). Para los pacientes que presentaron un diagnóstico más tardío, y por consiguiente un inicio de seguimiento y tratamiento la variabilidad temporal con respecto a los que presentaron diagnóstico desde el inicio del seguimiento fue de 0.93 años. Esta variabilidad era mayor en hombres (1.04 con respecto a mujeres 0.87) pero la diferencia no fue estadísticamente significativa.

Encontraron que el diagnóstico de episodio maniaco o hipomaniaco realizado en el primer contacto se mantenía estable entre un 76-83 %. Otro estudio realizado por el mismo equipo (Kessing, 2005), encontró que aproximadamente el 30 % de los pacientes con un diagnóstico inicial de manía o trastorno bipolar finalmente cambiaron de diagnóstico. Además de encontrar un mayor retraso significativo en el diagnóstico en el caso de pacientes jóvenes y de mujeres.

El estudio de estabilidad diagnóstica en población pediátrica ha sido realizado por Laursen et al. (2020). plantea la hipótesis de que un cambio en el diagnóstico de trastorno bipolar suele indicar dos posibilidades; o un cambio

en el curso y evolución de la enfermedad, o una falta importante de precisión diagnóstica. En niños y adolescentes con diagnóstico inicial de trastorno bipolar la estabilidad diagnóstica se ha visto cuestionada (Blader y Carlson, 2007; Moreno et al., 2007). Pero la estabilidad diagnóstica tras un episodio maniaco y consiguiente diagnóstico de BD solamente ha sido investigado en pacientes menores de edad por Geller et al. (2000) encontrando que el 85.7 % de pacientes diagnosticados de fenotipo de trastorno bipolar prepuberal y adolescente temprano (PEA-BP), continuaban manteniendo el mismo diagnóstico a los 6 meses de seguimiento.

La N muestral obtenida fue de 519 pacientes, con un diagnóstico inicial de trastorno bipolar al comienzo del estudio, a los 6 meses de seguimiento tras el diagnóstico inicial el 3 % había cambiado su diagnóstico a esquizofrenia paranoide, el 1 % a trastorno esquizoafectivo y el 3 % a trastorno psicótico no especificado. Los porcentajes de cambio a 1, 2, 3 y 5 años de seguimiento fueron similares, pero fueron ligeramente mayores los que mantuvieron seguimiento a 10 años.

La mayoría de los pacientes que presentaron un cambio de diagnóstico fue hacia esquizofrenia, y después de 10 años de seguimiento un 17 % de la muestra (169 pacientes) había cambiado a esquizofrenia. A pesar de todo, el 73 % de los pacientes con un diagnóstico inicial de BD mantenían el mismo diagnóstico tras 10 años de seguimiento.

Teniendo en cuenta la muestra inicial, el 92 % de pacientes continuaron el seguimiento a 3 años. El 86 % de ellos permanecía estable el diagnóstico de BD, mientras que el 14 % había cambiado el diagnóstico a esquizofrenia, trastorno esquizoafectivo o trastorno psicótico no especificado.

El estudio llevado a cabo por Ribeiro-Fernández et al. (2019) fue realizado por la Universidad de Navarra, e incluyó 72 pacientes diagnosticados de BD desde enero del año 2000 hasta diciembre de 2014. Los criterios de inclusión que se tuvieron en cuenta fueron los criterios diagnósticos DSM–5 y una edad menor a 18 años cuando se realizó el diagnóstico. Se excluyeron pacientes con patología neurológica y otras condiciones médicas, como esquizofrenia o retraso mental.

Los resultados obtenidos en este estudio constatan un 76.5 % de historia familiar de diagnóstico de trastorno bipolar, el 38.8 % se trataban de familiares de primer grado, y un 33.0 % tenían historia familiar en familiares de segundo grado. El 75.0 % de los pacientes presentaban al menos un síntoma comórbido, el 37.5 % presentaban dos o más trastornos comórbidos. Los trastornos comórbidos más frecuentes eran; TDAH (47.2 %), trastorno de conducta (19.5 %), consuno de sustancias (12.5 %), trastornos de ansiedad, trastornos de la conducta alimentaria y TOC en la misma proporción (8 %).

Con respecto a la estabilidad diagnóstica, que es el aspecto que nos ocupa en esta revisión, solamente el 4.2 % de pacientes no mantuvieron el diagnóstico de BD. Desafortunadamente, en este estudio el 2.8 % de la muestra realizó suicidio consumado. Con respecto a los síntomas prodrómicos, con un diagnóstico basal de trastorno bipolar o trastorno bipolar no especificado, la irritabilidad era más prevalente con respecto a los pacientes con diagnóstico de trastorno bipolar tipo II.

Se debe hacer una mención especial al metaanálisis realizado por Ratheesh et al. (2017). Incluyó un total de 56 estudios con pacientes que fueron diagnosticados inicialmente con Trastorno Depresivo Mayor, y en el que algunos estudios incluyeron niños y jóvenes). Valoraron el diagnóstico de cambio a trastorno bipolar, observando que se producía hasta en un 22.5 % de la población estudiada.

Este metaanálisis identificó que es probable que cuatro de cada 100 personas con Depresión Mayor hagan la transición a BD en los primeros 2 años. Casi una cuarta parte de los pacientes en seguimiento durante más de 12 años harán la transición a BD. La síntesis cualitativa sugirió que el mayor riesgo de transición a BD es en los primeros 5 años tras la evaluación inicial, y el metaanálisis confirmó este hallazgo. Los predictores más consistentes de cambio de diagnóstico entre las muestras post-puberales fueron los antecedentes familiares de BD, edad de inicio más temprana y presencia de síntomas psicóticos. Además, los resultados cualitativos sugirieron que los síntomas maníacos

subumbrales pueden ser predictivos de la transición a BD (Mathieu et al., 2010).

Por lo tanto, el trastorno depresivo mayor puede ser una etapa precursora de BD y podría ayudar a identificar personas con riesgo de manía o hipomanía, especialmente en los primeros años de seguimiento. Los factores que explican el aumento de la tasa de transición en los primeros años pueden incluir un seguimiento más intensivo, una mayor retención de los participantes, así como procesos patogénicos que explican el episodio depresivo, pero continúan operando.

La historial familiar de BD fue uno de los factores de riesgo identificados con mayor frecuencia en este metaanálisis. La falta de relación entre antecedentes familiares de depresión y BD posterior indica la relativa especificidad de la historia familiar de BD para predecirlo posteriormente en muestras de trastorno depresivo mayor. Esto es consistente con estudios de antecedentes familiares que han identificado especificidad en la transmisión familiar de manía y depresión (Vandeleur et al., 2014).

Los factores predictivos identificados, como la edad de inicio, los síntomas psicóticos y el TDM recurrente, pueden representar vulnerabilidades independientes o subtipos de depresión con mayor gravedad del trastorno. El uso de antidepresivos sin hipomanía asociada no se relacionó con un mayor riesgo de transición en nuestro metaanálisis, potencialmente moderado por el impacto de los estabilizadores del estado de ánimo. En el estudio de DelBello y Geller (2001) encontró que el grupo que más tarde desarrolló manía era más probable que estuviera tomando estabilizadores del estado de ánimo incluso antes de su primer episodio maníaco. La exclusión de estudios de seguimiento a corto plazo (< 6 meses) en este metaanálisis, puede haber limitado la capacidad para examinar el riesgo de cambios de humor asociados con los antidepresivos.

Esta transición a BD en los primeros años en estudios individuales y metaanálisis, indica que los esfuerzos de seguimiento y prevención pueden ser más efectivos en este período de tiempo. El valor de combinar los factores de riesgo en los enfoques de predicción del riesgo se sugiere por un efecto aditivo de las variables predictivas (Duffy, 2009; Duffy et al., 2007). Las personas deprimidas que tienen un inicio más temprano, antecedentes familiares de BD, síntomas psicóticos comórbidas y/o síntomas maníacos por subumbrales pueden ser el grupo objetivo más apropiado para este tipo de intervenciones. Alternativamente, esto puede tener relevancia clínica directa al considerar los riesgos de la transición para adultos y jóvenes que presentan episodios depresivos en la atención clínica ambulatoria.

Discusión

La estabilidad diagnóstica es una preocupación relevante en salud mental como lo demuestra la abundancia de publicaciones durante los últimos años, pero a pesar de esta extensa literatura, las diferencias metodológicas sustanciales entre los estudios continúan complicando la comparación directa de los resultados (Alavi et al., 2014). Pero, el diagnóstico psiquiátrico es un proceso continuo que en muchos casos no puede realizarse a partir de una única entrevista, y de ahí su escasa fiabilidad (Goikolea et al., 2007).

En este contexto, esta revisión muestra que la presentación inicial de trastorno bipolar a menudo dificulta diferenciar la entidad clínica del trastorno. Un tercio de los trastornos depresivos unipolares cambiarán de diagnóstico con un retraso de casi una década. Esto podría deberse a que existe un porcentaje considerable de trastorno bipolar cuya primera fase maníaca o hipomaníaca pasa desapercibida por diferentes motivos (Dudek et al., 2013; Ratheesh et al., 2017). Además, todos los estudios coinciden en la estabilidad de alrededor del 90 % o más en el diagnóstico del trastorno bipolar tanto en población infantil como adulta.

Por tanto, para mejorar el diagnóstico, es prioritario tener en cuenta los aspectos longitudinales y evolutivos de la enfermedad, en lugar de basarse en un diagnóstico transversal. Cabe señalar que estos resultados están limitados por el pequeño tamaño de la muestra, el pequeño número de evaluaciones y la gran variabilidad en la duración del seguimiento en la mayoría de estos estudios.

Se deben tener en cuenta algunas limitaciones de esta revisión. Primero, las restricciones de idioma implican que esta revisión potencialmente ignora los estudios que muestran otros resultados. La existencia de grandes diferencias en la calidad metodológica de los estudios revisados y por la heterogeneidad de los procedimientos empleados (Perestelo-Pérez, 2013). El proceso de selección de artículos y el proceso de extracción de los datos de cada trabajo garantizó la obtención de información relevante directamente relacionada con los objetivos de esta revisión. Los artículos analizados contaban con resúmenes traducidos al inglés o al español y las conclusiones se aproximaron significativamente a los datos obtenidos.

Las intervenciones estas poblaciones deben considerar los perfiles de riesgo-beneficio y, por lo tanto, intervenciones menos específicas, pero más benignas, pueden ser preferibles en etapas tempranas (Benedetti et al., 2014; Nassan et al., 2020). La consideración del diagnóstico para estos individuos también puede concebirse en una perspectiva de estatificación de diagnóstico cruzado donde tales episodios de depresión mayor pueden considerarse en una etapa previa a la enfermedad para una etapa más grave de trastorno unipolar recurrente o un trastorno diferente como BD o trastornos psicóticos (Álvarez-Cadenas et al., 2023).

Finalmente, e inherente al tema estudiado, la mayor parte de la investigación actual se basa en estudios de seguimiento a corto plazo, con diferentes metodologías y criterios que pueden dificultar la comparación directa de los resultados. Pero la similitud entre los datos obtenidos y la observación clínica apoya el objetivo principal de obtener una revisión sistemática robusta.

Las investigaciones futuras que utilicen resultados transdiagnósticos pueden ayudar a refinar las etapas de riesgo para el trastorno bipolar y las psicosis. Dado que el trastorno depresivo mayor puede presagiar la aparición de una variedad de enfermedades mentales graves, así como una mala salud física y resultados vocacionales, incluir múltiples resultados en las estrategias de prevención no solo es útil, sino que incluso puede ser necesario, ya que el poder estadístico puede estar limitado en los esfuerzos para la prevención de un solo trastorno (Aas et al., 2014).

Conclusiones

El diagnóstico temprano y consistente de BD sigue siendo un desafío importante. La revisión actual muestra que alrededor de un tercio de los trastornos depresivos unipolares y una cuarta parte de los pacientes que presentan un FPE cambiarán su diagnóstico hacia el trastorno bipolar. La presentación más consensuada de BD se considera como una entidad diagnóstica con alta fiabilidad y estabilidad en el tiempo. En el caso de la población pediátrica, existe un elevado grado de estabilidad en el diagnóstico, manteniéndose estable el diagnóstico en una proporción de más del 90 % de las muestras estudiadas en una media de 3 años seguimiento. Estos datos apoyan la prevalencia de esta patología en la población de corta edad y sostiene una fuerte validez diagnóstica. Aunque probablemente encontraremos alguna menor estabilidad diagnóstica en la práctica clínica.

Con el fin de mejorar la estabilidad diagnóstica de trastorno bipolar, se podrían tener en cuenta algunas consideraciones. En futuras revisiones de los manuales diagnósticos sería recomendable incorporar, nuevos especificadores que ayuden a aumentar la validez del diagnóstico, así como incluir otros trastornos del espectro bipolar y síntomas subumbrales o síntomas solapados, como en el caso de población infantil la comorbilidad con el TDAH.

Por otro lado, tener en cuenta una visión longitudinal del diagnóstico en lugar de basarse únicamente en valoraciones transversales podría ayudar a generar una mayor estabilidad. El uso de entrevistas estructuradas más unificadas, de acuerdo con la práctica clínica real, y el desarrollo o uso de pruebas complementarias, podrían contribuir a una mejora en el diagnóstico.

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THE ROLE OF ACTIVELY OPEN-MINDED THINKING AMONG COLLEGE STUDENTS AND ITS IMPACT ON FUTURE TIME PERSPECTIVES

EL PAPEL DEL PENSAMIENTO ACTIVO DE MENTE ABIERTA ENTRE LOS ESTUDIANTES UNIVERSITARIOS Y SU IMPACTO EN SUS PERSPECTIVAS DE TIEMPO FUTURO

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Abstract

The current study aimed to investigate the development of actively open-minded thinking (AOT) among Saudi College students and its impact on their future time perspective (FTP). The study samples included 1,797 undergraduate students from different majors, and used AOT inventory of (Stanovich & West, 1997) and a short version of Zimbardo FTP inventory. The results showed that there was no development of AOT as illustrated by linear regression among college students depending on the AOT subfactors. However, the FTP results demonstrated that there was development of the present experience (FTP subfactor), as indicated by linear regression according to age in the present experience (FTP subfactor) was increased by age. The findings revealed a difference in the AOT, AOT subfactors, FTP and FTP subfactors in relation to sex, with males showing a higher score compared to females. In addition, the results indicated the interaction of AOT by sex on FTP subfactors (i.e., present vs. future). These findings indicate that AOT does not show developmental change according to age among the study sample. In contrast, some developmental changes occurred in FTP and FTP subfactors according to age.

Keywords: Actively Open-minded Thinking; Future Time Perspectives; College students; Saudi Arabia.

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Resumen

El estudio actual tuvo como objetivo investigar el desarrollo del pensamiento de mente abierta activa (AOT) entre los estudiantes universitarios saudíes y su impacto en su perspectiva de tiempo futuro (FTP). Las muestras del estudio incluyeron 1797 estudiantes universitarios de diferentes carreras y utilizaron el inventario AOT de (Stanovich y West, 1997) y una versión corta del inventario FTP de Zimbardo. Los resultados mostraron que no hubo desarrollo de AOT como lo ilustra la regresión lineal entre estudiantes universitarios según los subfactores de AOT. Sin embargo, los resultados de FTP demostraron que hubo un desarrollo de la experiencia actual (subfactor FTP), como lo indica la regresión lineal según la edad en la experiencia actual (subfactor FTP) aumentó con la edad. Los hallazgos revelaron una diferencia en los subfactores AOT, AOT, FTP y FTP en relación con el sexo, mostrando los hombres una puntuación más alta en comparación con las mujeres. Además, los resultados indicaron la interacción de AOT por sexo en los subfactores de FTP (es decir, presente versus futuro). Estos hallazgos indican que AOT no muestra cambios en el desarrollo según la edad entre la muestra del estudio. Por el contrario, se produjeron algunos cambios de desarrollo en los subfactores FTP y FTP según la edad.

Palabras clave: pensamiento activo de mente abierta; perspectivas de tiempo futuro; estudiantes universitarios; Arabia Saudí.

Introduction

Life is accelerating and requires different skills, such as Actively Open-minded Thinking (AOT), which qualifies the individuals to deal with present and future challenges. The AOT not only meets the developmental needs of individuals and society, nonetheless, it is one of multiple thinking styles providing standards for the evaluation of thinking, which plays a significant role in how humans reason the present and future issues (Svedholm-Hakkinen & Lindeman, 2018). It also allows the individuals to adapt to societal changes, during the time of the pandemics (e.g., COVID 19), and is associated with reducing individual biases in potential lifestyle changes (e.g., social distancing).

Moreover, this type of thinking allows the individuals to deal effectively and openly deal with challenges in present and future situations (i.e., during covid-19 online teaching and assessments were used on a large scale). According to Haran et al. (2013), AOT is characterized by intellectual maturity and the ability to be independent in thinking and openness to new experiences, which requires the acquisition of many skills. These skills are characterized by diversity and the ability to integrate between the various sources of knowledge to access credible information (Edgcumbe, 2021).

The concept of AOT is derived from the early work of Baron (1993) who investigated the main characteristics of good thinking to deal with present and future issues. He mentioned that AOT is important for two different purposes: First, AOT is beneficial to achieving goals, and formulating appropriate goals. Second, it is useful for providing a criterion for judging what is appropriate for us in the present and the future (Baron, 2019). Baron (1995) suggested that people provide evidence for AOT, in that they argue for a previously held position in thinking than they do for arguments opposing a previously held position (Toplak & Stanovich, 2003), which affects an individual's arbitration process in future issues and events. Also, AOT provides standards for assessing thinking, which apply to our own thinking versus the thinking of others (Baron, 2008).

Stanovich and West (1997) believe that AOT is viewed as a characteristic of good critical thought that includes different skills as flexibility in thinking, characterized by cognitive flexibility, open to change, and accept new experiences and a positive view about the future. Different studies on AOT showed that individuals with high AOT scores have more cognitive self-independence and mature personality than those with low AOT scores (Baron, 2019). This can be attributed to the practice of flexibility in thinking (Stanovich & West, 1997), which evaluates opinions and issues in a logic manner. Ladd (2009) found that individuals with AOT scores demonstrate the ability to analyze situations, solve problems, and accept unfamil-

iar ideas and thoughts, as well as new possibilities that facilities problem solving for the current issues, and help these individuals adapt to future changes.

In Haran et al. (2013) study, the authors discussed the prevalence of AOT which may depend on the degree of individual basis towards his thoughts and believes as a part of the personality and cognitive aspect. The same observation was reported in the study of Baron (2019), which indicated that AOT helps individuals to create different patterns that assist them to solve problems in an objective manner and avoid self-bias by collecting information from different sources, and considering other opinions, which contributes to making proper decisions.

Dalasio (2020), explained that individuals with AOT have the ability to make decisions by following scientific foundations, and new approaches that help them choose the most appropriate alternatives. Additionally, individuals with high AOT scores demonstrate a cognitive reflection process, which includes a set of unique cognitive processes used for decision-making in reciprocal binary ways. Several studies have developed this idea by focusing on the nature of AOT and its impact on decisions making in the present and future (Baron, 2019; Dalasio, 2020). It has been controversial in the literature whether AOT and the development of AOT may positively or negatively impact future perspectives among individuals. Consequently, the current study investigates the effect of AOT on individuals' future perspectives.

The Development of AOT according to age

Although the AOT has its merits to be a good predictor of understanding the individual future perspectives, and how the nature of good thinking may lead to improve the quality of life. The concept of AOT may vary with age, as reported in the study of (Edgcumbe, 2021), in that performance on measures of AOT decreases as individuals age. It is worth noting that the sample of above-mentioned study from age 18 to 87 years old, and it included 9,010 participants. The author observed that older adults have lower AOT performance scores compared to younger adults. He attributed these differences in AOT to a specific mechanism driven by age differences in healthy brain and associated healthy cognitive functions, which decreases with age. Decreased AOT as a function of aging provided clear evidence for the impact of aging on AOT. Analogues to the study of (Metz, Baelen & Yu., 2020) that studied AOT among 1,551 adolescents from eight diverse public, private and charter high school academies in the USA. Data were collected for 18 months on the change in the concept of AOT between these adolescents. The study included a variety of approaches to assess AOT values and habits, including a rating scale, multiple choice measures, and teacher-to-student reports, peer nomination, and interviews with subsets of the larger sample. Participants in this study demonstrated AOT in three ways, deep search for ideas, epistemic empathy, and pluralistic thinking. Nevertheless, no change according to the school or the education system has been reported. Very limited information has been reported on the development of AOT among different individuals and groups according to age.

The Development of future time Perspectives (FTP) according to age

Future time perspectives (FTP) refer to how the individuals view their psychological future and psychological past existing at a given time (Kooij et al., 2018). The research findings show that FTP includes three different factors represented in past experience, present experience, and future experience (Cate & John, 2007; Kooij et al., 2018).

Prior research illustrated that past, present and future perspectives are distinct, and play a major role in shaping the goals, plans and self-regulatory activities. Additionally, the experience of the future time affects several key outcomes in educational settings such as student performance at the college, and their mental health (e.g., Adams & Nettle, 2009; Kooij et al., 2018).

The current research has found that there is a relationship between FTP and other outcomes such as: well-being, goal-directed behaviors, health behavior, risk taking behavior and retirement planning (Cunningham et al., 2015; Dearing et al., 2010; Stolarski et al., 2014). Moreover, different studies discussed the relationship between Age and

FTP, as mentioned in the study of Sobol-Kwapinska et al. (2019) that investigated the effect of FTP in different age groups (18-78 years). A total of 2,789 adults were enrolled in the study, and they were divided into three different categories including: 18-27, 28-39, and 40-65 years old. The findings indicated that the first group (18-27 years), a fairly clear five-factor structure of time perspective was found as originally mentioned by Zimbardo in his model. While the oldest group (40-65 years), respondents, a three-factor structure emerged, which can be described as follows: Past-Negative combined with present-fatalistic, and past-positive combined with present hedonic and future.

However, differences in the factor structure of time perspective were interpreted in the context of developmental change. These findings are consistent with previous findings of Brothers et al. (2014) that examined the age association and age-group differences of FTP subfactors. Data were collected from 625 adults, ages 18 to 93 years old, representing three different developmental stages: young, middle-aged and elders. The results revealed a negative association between age and FTP. Young adults demonstrated greater uncertainty about the future than middle-aged or older adults. This study provided evidence for a pattern of age associations and age-group differences that are consistent with life-span developmental theory. Data on the development of FTP among different individuals, and groups according to age is still limited.

Purpose of the study

The current study examined the development of AOT and its impact on FTP among college students in Saudi Arabia. This study had three objectives: (a) to investigate the relationship between AOT and Age and FTP and age. (b) to examine the difference in AOT and FTP according to Sex (male vs. female). (C) to study the impact of the interaction of AOT and Sex on FTP between Saudi college students.

Study Questions

1. What is the development of AOT according to age?
2. What is development of FTP according to age?
3. What are differences in AOT and FTP according to sex?
4. What is the impact of the sex-specific AOT interaction on FTP?

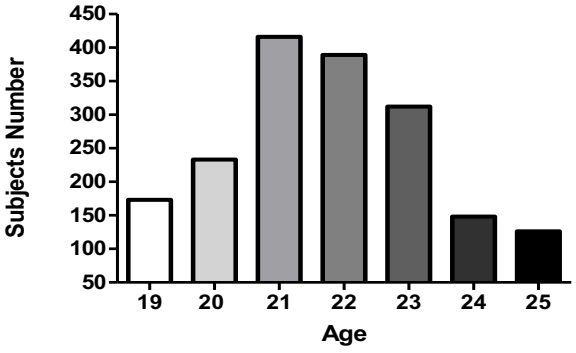
Method

Participants

Data were collected from 1,797 (697 females, 1,100 males) Saudi undergrad students across 10 different public universities in the Kingdom of Saudi Arabia. All participants completed both AOT and FTP scales. They reported no neurological or psychiatric problems, and their ages ranged between 19 and 25 years old (see Figure 1).

Figure 1.

Histogram of the Distribution of the Participants Depending on the Age.



Instruments& Measurements

This study used two different instruments as follows:

Actively Open-minded thinking (AOT) Scale

A modified version of Stanovich and West scale (2007) was used in the current study that includes 30 items out of 41 items and was administrated to measure three

different dimensions of AOT (Flexible thinking, Definition of belief, and Dogmatic thinking). All items of the scale were rated on Likert- type response scale ranging from 1 (strongly disagree) to 5 (strongly agree). The AOT in the current study had poor overall internal reliability as measured by Cronbach's alpha (α = .675). To resolve this issue, the AOT score was recalculated and divided to three different factors based on the results of the exploratory factor analysis. The first factor measures dogmatic thinking that includes 13 items and has a good reliability (α = .770). The second factor measures the definition of belief that includes 7 items and revealed a good reliability (α = .797). The third factor focuses on reasoning that includes 10 items and shows a good reliability score (α = .782). There is a maximum score of 150 for the AOT scale, with a high score denoting open-minded individual and vice versa. This scale was translated with the use of back-translation into the Arabic language for use in Saudi Arabia.

Zimbardo Future time Perspectives (FTP) Scale

A modified short version of Zimbardo's Future time perspectives (Keough et al., 1999), was used in the current study, consisting of 3 main scales (negative, present, and future experiences) as a result of the exploratory factor analysis. Each scale includes 2 subscales that administrated to measure positive and negative aspects of the past, and present hedonistic, present fatalistic and future perspectives. All items originally come from the Original ZFTP inventory (Zimbardo & Boyd, 1999) that includes 6 items focusing on past experience, 14 items for the present experience, and 10 items for future experiences. All items of the scale were rated on Likert- type response scale ranging from 1 (strongly disagree) to 5 (strongly agree). The FTP in the current study had low overall internal reliability as measured by Cronbach's alpha (α = .602).

To resolve this issue, the FTP score was recalculated and divided to three different factors based on the results of the exploratory factor analysis. The first factor measures past experience that includes 6 items and has good reliability (α = .719). The second factor measures present experience that includes 14 items and revealed good reliability (α = .747). The third factor focuses on future experience that includes 10 items and shows a high reliability score (α = .753). This scale was translated with the use of back-translation into the Arabic language for use in Saudi Arabia.

Results

The development of AOT according to Age

First, linear regression analysis was performed to investigate whether age significantly predicted AOT as measured by Flexibility thinking. The results were not statistically substantial, (but it is a trend), suggesting that age did not predict AOT as measured by flexibility thinking factor [$F(1,1795) = 2.731$, $p = .09$].

Second, another linear regression was carried out to examine whether age significantly predicted AOT as measured by the belief concept. The results were not statistically significant, suggesting that age did not predict AOT as measured by the above-mentioned factor [$F(1,1795) = 1.510$, $p = .219$].

A third linear regression was performed to predict the contribution of age on AOT as a measure by dogmatic thinking. The results were not statistically significant, demonstrating that age did not predict AOT as measured by the above-mentioned factor [$F(1,1795) = 0.404$, $p = .525$]. These findings revealed that age could not predict any development on the concept of AOT.

Fourth, linear regression was carried out to predict the contribution of the age on AOT as measured by the total mark on AOT scale. The results were not statistically significant, indicating that age did not predict AOT as measured by the above-mentioned factor [$F(1,1795) = 2.616$, $p = .106$].

The development of FTP according to age

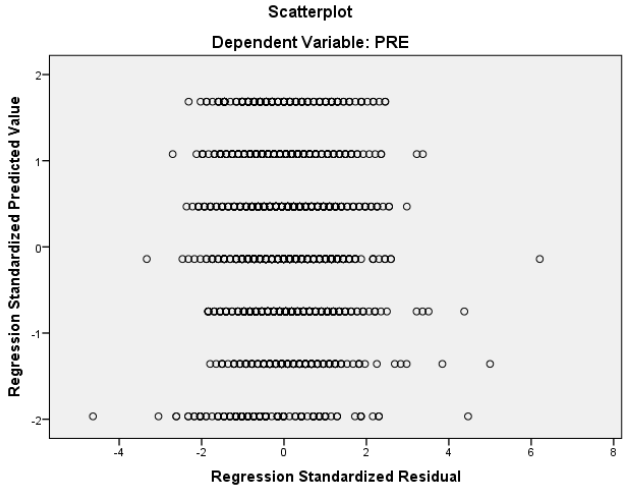
Linear regression analysis was performed to investigate whether age was significantly predictive of FTP as

measured by experience. The results were not statistically significant, suggesting that age did not predict FTP as measured by the above-mentioned factor [$F(1,1795) = .637$, $p = .425$].

Then, another linear regression was examined to determine whether age significantly predicted FTP as measured by present experience. The results of this analysis showed that the model explained 7.6% of the variance, which revealed that the model is significant [$F(1,1795) = 10.46$, $p < .001$]. Moreover, it was observed that age predicted FTP ($R^2 = 0.006$, $\beta = 51.12$), (see Figure 2), according to FTP Subfactor: Present Experience, in that Present experience decrease with age increase.

Figure 2.

Linear Regression Analysis of the Present Experience (FTP main factor).



Moreover, a third linear regression was performed to test whether age was significantly predictive of FTP as measured by future perspectives. The results were not statistically significant, suggesting that age was not predictive of FTP as measured by above-mentioned factor [$F(1,1795) = 0.234$, $p = .629$].

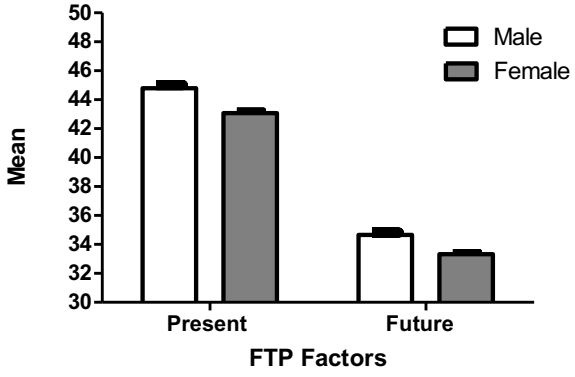
Differences in AOT and FTP according to Gender (male vs. female)

An independent sample T-test was used to examine whether AOT and FTP and its subcomponents differ according to Gender (male vs. female). The results revealed substantial differences between male and female with respect to the concept of belief ($t = 3.541$, $p = .001$), Flexibility thinking ($t = 3.951$, $p = .001$), and the total score on AOT inventory ($t = 4.183$, $p = .001$) for male vs. female participants, where male participants showed higher scores on AOT, and AOT subfactors (i.e., Flexibility & Belief concept) than the female participants.

Additionally, an independent sample t-test showed that there were differences between male and female on Present experience ($t = 5.171$, $p = .001$), and Future ($t = 4.908$, $p = .001$), and total FTP score ($t = 4.452$, $p = .001$), with an average greater for male than female participants (see Figure. 3).

Figure 3.

Mean and Standard Error of Present and Future.



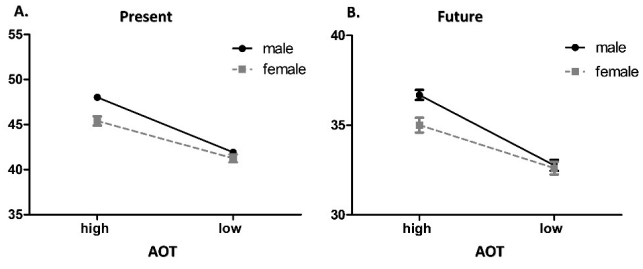
The interaction between AOT and sex on FTP

A two-way ANOVA was conducted to examine the interaction of AOT with Sex on different FTP subfactors.

The results revealed that both the present and future experience demonstrated an interaction effect between AOT and Sex. These findings reported a significant effect in relation to Present experience $F(1,1156) = 5.408$, $p = .02$, and Future experience $F(1,1156) = 4.915$, $p = .027$ (see Figure 4). No other interaction has been reported.

Figure 4.

Interaction of AOT and sex on FTP. A. for Present and B. For future.



Discussion

The present study examined the development of AOT according to age (19-25) among 1,797 Saudi college students, and its impact on the future time perspectives (FTP). Linear regression results of AOT as measured by the modified AOT scale (Stanovich & West, 2007), indicated that there is no change as a function of age. There is no evidence that AOT is affected by age, while there are no differences in AOT subfactors according to age. However, these findings in contrast to the finding of the Edgcumbe (2021), that suggested AOT changes as a function of aging. One crucial difference between the present study and the above-mentioned study is the age range which started from 18 to 87 years old, while the present study focused on the age from 19 to 25. Specifically, the present study investigated the development of AOT among college students. The demographic characteristics of the current study sample (college students) are the same, as the participants from Saudi Arabia have the same age range and they share the same homogeneous values and culture (Islamic Culture).

In addition, most college students in Saudi Arabia follow the same code and traditions, and it seems to influence their way of thinking. We are of course aware that culture has a significant impact on the perception of participants to utilize the principles and strategies of AOT in daily life.

Additionally, the current study investigated the development of FTP among college students. The results showed that the present experience decreases with age. These findings are consistent with the findings of Sobol-Kwapinska et al. (2019) that investigated the effect of FTP in different age groups, in the age range between (18-78 years). The results demonstrated there is different FTP structure according to the development of age between young versus older participants.

Moreover, the current study findings suggested that young college students (Freshman & Sophomore) think about the present experience after they joined the university level, which showed different aspects of experiences than high school. While junior and senior students gain this present experience by spending enough time to learn about the university and the university system. Therefore, they started to think about future issues. For this reason, present experience decreased with age. One more evidence for our interpretation is that linear regression does not show any significant value for other FTP subfactors (i.e., Past and Future).

These results indicate that the main focus of college students at KSA is on thinking about the present and the skills that may gain during the university level. Moreover, the results of the current study revealed main differences of AOT and AOT subfactors (i.e., Flexibility thinking and Belief concept) between male and female students, in which males have higher AOT and AOT scores than females.

These findings indicate that Saudi college male students are more open to changes than females. We believe that parenting styles and culture may explain these findings, as they place more constraints on females than males as well as influence the thinking patterns of female students. In contrast, males have the ability to go beyond cultural boundaries and interact with different cultures, which

contributes to increase their ability for openness in thinking and to gain some aspects of flexibility when they discussed the current and future issues related to their personal or academic experiences. These findings are in line with the findings of different studies that investigated the social type effects on AOT (Stanovich & West, 1998) that revealed a significant difference between males and females on AOT. These findings suggest that cultural boundaries may affect the acquisition of AOT among college students at KSA.

Furthermore, the results revealed major differences in FTP and FTP subfactors (i.e., present and future), between male and female, with males showing higher scores on FTP and FTP subfactors compared to female participants. These findings suggest that male students have a clear agenda about their current expectation, and present experience. In addition to, they have a preliminary plan for the future. However, it is not clear why female participants did not demonstrate this pattern. It seems that culture effect may influence the future and present perspectives among female participants. These findings were replicated when the interaction of AOT by sex was investigated regarding FTP and FTP subfactors.

The findings showed that there was no difference in FTP for those with low AOT scores, while the opposite pattern was reported in participants with high AOT scores, as they showed higher FTP and FTP subfactors for males than females. These findings suggested that AOT plays a significant role in the FTP and FTP subfactors.

Conclusion

We concluded that AOT is considered an important predictor of FTP among Saudi college students, as those with high AOT scores showed a different pattern on FTP than those who score low on AOT. Moreover, the findings of the current study showed that the development of AOT requires different developmental stages that help individuals to acquire different skills and expertise and improve the cognitive process. However, the current study focused on one developmental stage (19 to 25), which does not show any changes in the concept of AOT and AOT subfactors. In contrast, the current study findings revealed that there is developmental changes in the concept of FTP and FTP subfactors.

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ANTISOCIAL AND CRIMINAL BEHAVIORS OF SECONDARY SCHOOL STUDENTS FROM THE CITY OF CHIHUAHUA IN NORTHERN MEXICO AND ASSOCIATED RISK FACTORS

CONDUCTAS ANTISOCIALES Y DELICTIVAS EN ESTUDIANTES DE SECUNDARIA DE LA CIUDAD DE CHIHUAHUA DEL NORTE DE MÉXICO Y FACTORES DE RIESGO ASOCIADOS

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Abstract

Background: Since the school is a key setting during adolescence, it is crucial to detect deviant social behaviors of individuals in this environment to target corrective measures. Aim: To estimate the prevalence of antisocial and criminal behaviors of secondary school students in the city of Chihuahua, northern Mexico, and to explore associated factors. Methods: Cross-sectional survey with adolescents aged 13-16 years, randomly selected from public and private schools. The Mexican version of the

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validated antisocial and criminal behaviors questionnaire was applied to 430 students from 41 schools. Proportions and mean scores were computed. Results were stratified by individual and school characteristics. Logistic regression was used to identify factors associated with the probability of reporting at least one criminal behavior. Results: Eating when not allowed (67.5 %) and arriving late to school (51.7 %) were the most frequent antisocial behaviors, while spending money gambling (17.2 %) and damaging objects or property in public spaces (15.5 %) were the most frequent criminal behaviors. Men had a higher criminal mean score (1.35 vs. 0.89; $p < .05$), and 9th graders had higher mean than 7th and 8th graders for antisocial (7.05 vs. 5.39 and 4.97; $p < .05$) and criminal (1.44 vs. 0.98 and 0.94; $p < .05$) behaviors. Public schools had a lower antisocial mean than the private (5.52 vs. 6.61; $p < .05$). High-income private schools had the highest mean for antisocial behavior (7.44), followed by tele-secondaries (7.06); for criminal behavior, public technical (1.71) and tele-secondaries (2.31) had the highest means. The schools' lowest academic performance was associated with lower means, especially for criminal behavior. Male sex, higher school grade, low school performance, having failed a year, reporting family problems, and performing specific free-time activities (e.g., hanging out with friends) were associated with a higher adjusted odds ratios of reporting at least one criminal behavior. Conclusion: The most frequent behaviors were quantified, and specific risk groups and factors were identified in order to design and implement preventive programs.

Keywords: Adolescents; antisocial; behavior; criminal; delinquency; Mexico; students.

Resumen

Antecedentes: Dado que la escuela es un escenario clave durante la adolescencia, es crucial detectar conductas sociales desviadas en este entorno para guiar medidas correctivas. Objetivo: Estimar la prevalencia de conductas antisociales y delictivas en estudiantes de secundaria de la ciudad de Chihuahua, norte de México, y explorar factores de riesgo asociados. Métodos: Encuesta transversal con adolescentes de 13 a 16 años seleccionados aleatoriamente de escuelas públicas y privadas. La versión mexicana del cuestionario validado de conductas antisociales y delictivas fue aplicada a 430 estudiantes de 41 escuelas. Se calcularon proporciones y puntuaciones medias. Los resultados se estratificaron por características individuales y escolares. Se empleó regresión logística para identificar factores asociados a la probabilidad de reportar al menos una conducta delictiva. Resultados: Comer cuando no está permitido (67.5 %) y llegar tarde a la escuela (51.7 %) fueron las conductas antisociales más frecuentes, mientras que gastar dinero en juegos de azar (17.2 %) y dañar objetos o propiedad pública (15.5 %) fueron las conductas delictivas más frecuentes. Los hombres tuvieron puntuaciones medias delictivas más altas que las mujeres (1.35 vs. 0.89; $p < .05$), y los alumnos de 9.° grado tuvieron una media más alta que los de 7.° y 8.° para conductas antisociales (7.05 vs. 5.39 y 4.97; $p < .05$) y delictivas (1.44 vs. 0.98 y 0.94; $p < .05$). Las escuelas públicas tuvieron una media antisocial más baja que las privadas (5.52 vs. 6.61; $p < .05$). Las privadas de altos ingresos tuvieron la media más alta de conducta antisocial (7.44), seguidas de las telesecundarias (7.06); para conducta delictiva, las técnicas públicas (1.71) y las telesecundarias (2.31) mostraron las medias más altas. El rendimiento académico más bajo de las escuelas se asoció con promedios más bajos, especialmente para comportamiento delictivo. Sexo masculino, mayor grado escolar, pobre desempeño académico de la escuela, reprobación de un año escolar, referir de problemas familiares, y practicar actividades de tiempo libre específicas (e.g., salir con amigos) se asociaron a mayores razones de momios ajustadas para reportar al menos una conducta delictiva. Conclusión: Se cuantificaron las conductas más frecuentes, y se identificaron grupos y factores de riesgo específicos para poder diseñar e implementar programas preventivos.

Palabras clave: Adolescentes; antisocial; conducta; criminal; delincuencia; estudiantes; México.

Introduction

Since the 1930s (Glueck & Touroff Glueck, 1930), the interest of identifying antisocial and criminal (i.e.,

destructive actions that bring harm or involve the violation of the rights of others) behaviors in children, adolescents, and young adults has generated abundant research studies in schools, reformatories, and social reintegration centers. Initially, biological perspectives used hereditary somatotypes linked to specific crimes in which body features correlated with different types of behavior pointing to the impulsiveness and aggressiveness of mesomorphic individuals (Sheldon et al., 1954), but with little merit predicting criminality (Bull & Green, 1980; Maddan et al., 2008).

During the last decades, numerous risk factors have been associated with antisocial behaviors and delinquency including sex, age, ethnicity, national origin, substance abuse, socioeconomic status, underachievement in education, pathological gambling, psychiatric conditions, personality traits, child temperament, psychological maturation, poor self-control, contact with offenders, age of first offense, peer-pressure, family dynamics, parent criminality, unreliable parenting, insufficient parental monitoring, and other factors that can interact with each other (Chen et al., 2016; Day & Wanklyn, 2012; Duran-Bonavila et al., 2017; Murray et al, 2018; Savag et al. 2013). Studies have also looked at biological explanations focusing on psychophysiological (e.g., blunted heart rate and skin conductance), brain mechanisms (e.g., structural and functional aberrations of prefrontal cortex, amygdala, and striatum), and genetic (e.g., gene-environment and gene-gene interactions) factors for criminal behaviors (Ling et al., 2019). Some authors have grouped many of these variables into genetic, biologic, and environmental influences (Tuvblad & Beaver, 2013).

Research has also identified risk factors for antisocial behavior early in life, including parent criminality, poverty, child temperament, low intelligence, marital discord, ineffective discipline, poor parental monitoring, impulsiveness, low school achievement, poor parental supervision, child physical abuse, punitive or erratic parental discipline, cold parental attitude, parental conflict, disrupted family, antisocial parents, large family size, low family income, antisocial peers, high delinquency-rate schools, and high crime neighborhoods (Farrington, 2005; Reid & Patterson, 1989).

Unfortunately, antisocial, and criminal risk behaviors among adolescents and young adults have multiplied in many regions, often linked to new environments (e.g., internet, media, pornography, video games, etc.) that enabled the disinhibition of aggressive impulses, triggering risk behaviors and unlawful violence (Ferguson, 2013).

In Mexico, there is evidence that crimes committed by minors, mainly men, have increased and become more recurrent, including robberies, injuries, kidnappings and even homicides. A survey conducted with nearly 300 adolescents who committed severe offences at juvenile detention centers identified robberies with violence (35 %), homicides (17 %), carrying weapons (17 %), vehicle theft (15 %), and kidnappings (15 %) as the most common type of crimes perpetrated (Azaola, 2015); the state of Chihuahua in particular ranks high not only in the list of states where adolescents carry out more crimes, but also where they are victims of organized crime (Comisión Nacional de los Derechos Humanos, 2019).

Since school constitutes a key setting during childhood and adolescence, it is essential to detect antisocial and criminal behaviors in this environment. Identifying vulnerable students and relevant risk factors associated with these behaviors is crucial for the design and implementation of preventive programs at the school level. Therefore, the purpose of this study was to estimate the prevalence of antisocial and criminal behaviors of secondary school students in the city of Chihuahua, and to explore associated factors.

Methods

Participants

This cross-sectional survey was conducted using a probabilistic sample of 430 adolescents selected from secondary schools located within the geographic limits of Chihuahua, the capital city of the homonymous state in northern Mexico with a population of one million inhabitants (Instituto Nacional de Estadística y Geografía, 2015). This city is highly ranked in human and social development (Human Development Index of 0.91), and it

is one with the highest literacy rates (99 %) in the country (Programa de las Naciones Unidas para el Desarrollo, 2019). The study focused on grades 7-9 in international standards, with most students aged 13-16 years.

The sample size was computed based on the expected prevalence of antisocial and criminal behaviors using a formula for estimating a single proportion (Lwanga & Lemeshow, 1991). To maximize the sample, it was assumed that 50 % of the students in the population had the factor of interest (i.e., a positive response for each of the items included in the measuring instrument). Based on a 0.50 expected proportion with a 4 % absolute precision and 95 % confidence level, the computed sample was 580 students. An extra 10 % for potential non-responders was added (n = 58), resulting in a final sample of 638 students. However, the final number of respondents was 430. With this number of participants, retrospective calculations led, all other factors unchanged, to a margin of error for the estimates of ±4.6 %.

Instruments

To understand, measure, and prevent risky behaviors, various tools have been proposed (Frick & Hare, 2001; Mezquita et al., 2021; Seisdedos-Cubero, 1995; Shapland, 1978). For this survey, the following instrument was used:

Antisocial and criminal behavior (ACB) questionnaire: This tool was developed in Spain (Seisdedos-Cubero, 1995). It has a reliability coefficient (Cronbach's alpha) of 0.90 (Programa de las Naciones Unidas para el Desarrollo, 2019). The Spanish version was later adapted for use in the Mexican population (Seisdedos-Cubero & Sánchez-Escobedo, 2001), and since then it has been used by various authors in Mexico (Gaeta & Galvanovskis, 2011; Sánchez-Velasco et al., 2017). The instrument includes two scales ranging from 0 to 20 points each, one for antisocial (e.g., arriving late, fighting, swearing, entering a forbidden place, etc.), and one for criminal (e.g., damaging objects or property, stealing objects or money, carrying a weapon, using drugs, etc.) domain, with 20 dichotomous (yes = 1 point, no = 0 points) items each.

Three additional tools were used to collect data to characterize individuals and schools:

General questionnaire: It was used to collect basic socio-demographic, academic, and personal data containing the following variables: sex (male, female), school grade (7th, 8th, 9th), failing at least one school grade in the past (yes, no), family situation (doesn't live with parents, lives with father, lives with mother, lives with both parents), reported family problems (none, few, some, many), most common free time activity (meeting with family, playing sports, social networking, watching TV & playing videogames, hanging out with friends), and currently working in any job (yes, no).

Grouping of schools: Secondary schools were categorized according to the following two methods: 1). By type: public/general, public/technic, public/TV-secondary, private/high-income (tuition ≥ 100 USD/month), and private/middle-income (tuition <100 USD/month), and 2). By ratio of students to school personnel (< 5:1, 5-9:1, 10-14:1, and 15-19:1). Data was obtained directly from the schools' authorities.

Schools' academic performance: Schools were stratified according to academic performance assessments from data available online (www.mejoratuescuela.org/) based on two assessments: 1). The result in ENLACE (National Assessment of Academic Achievement in Schools) test of 2013 (www.educacionbc.edu.mx/departamentos/evaluacion/evaluaciones/ebasica/enlace.php): This is an evaluation used to rank schools based on the students' performance in Spanish and mathematics (graded as failed, fair, good, excellent, and not assessed); the schools' percentile performance was stratified based on its position out of the 765 schools in the State of Chihuahua (≥ 90th, 80-89th, 70-79th, 50-69th, 25-49th, and 0-24th), and 2). The result in the PLANEA (National Plan for Learning Assessment) test of 2017 (http://planea.sep.gob.mx/Diagnostica/): A formative assessment that replaced the ENLACE test; it informs about how students are progressing in cognitive and non-cognitive skills and abilities (graded as failed, fair, good, excellent, and not assessed).

The questionnaires used were self-administered in a private area of the school during the months of January and February of 2020 under the supervision of trained and standardized field workers. The mean duration for the completion of the questionnaires was 15 minutes (range 10-20 min).

Procedures

A probabilistic sampling procedure was used, based on the 16,360 students registered in the 62 secondary schools available in the city. First, a sampling frame was built containing all students from these schools. Then, a systematic sampling technique was used as follows: in a first column, the schools were numbered and ranked from 1 to 62; in the second column, the number of students in each school was registered; the third column contained the cumulative frequency of students; and in the four column the range of students from the previous school to the next school was registered. Thereafter, a sampling interval was computed based on the calculated sample size and the total number of students (16,360/638 = 25). A random number from 1 to 10 was taken (seven), and the sampling interval was added consecutively throughout the sampling frame (7+25 = 32, 32+25 = 57, 57+25 = 82, etc.). In this way, more students were sampled from the larger schools, and fewer students from smaller schools, so that the final sample was proportional-to-size.

The school approval was sought in an initial visit. If the school authorities agreed, then the informed consent form was sent to the students' parents or tutors a few days prior to the scheduled visit. Once signed by parents or tutors, students were also asked to read the inform consent form and requested to assent their participation. The study proposal was revised and approved by the Ethics and Research Committee at Christus Muguerza Hospital Chihuahua (ID: HCMP-CEI-52-02122019).

Once in the schools, the numbers in the lists of the students were harmonized according to the predefined numbers outlined in the sampling strategy to determine which students had to be sampled in each school. In total, 41 out of the 62 schools agreed to participate (66.1 %), resulting in 430 students sampled out of the 638 selected (individual response rate of 67.4 %).

Data analysis

The proportion of the most frequent responses for each domain were tabulated. The points obtained by the students for each scale were added and the mean scores and standard deviations (s.d.) for the antisocial and criminal behaviors were computed and compared by students' individual and school characteristics. Student's t-tests were used for comparisons between two groups,

Table 1.

Questions with most frequent positive responses for the antisocial and criminal domains by secondary students in the City of Chihuahua, 2020.

Item	Behavior asked	N (%)
Antisocial		
A17	Eating when not allowed at class, job, public place	291 (67.5)
A7	Arriving late to school or meeting	223 (51.7)
A16	Knocking at someone house's door and run away	215 (49.9)
A20	Fighting with others (beating, cursing)	187 (43.4)
A5	Swearing/insulting with violence/discrimination	156 (36.2)
A18	Answering rudely to an authority/superior at school, home, job	153 (35.5)
Criminal		
C14	Spending money in gambling more than what is possible	74 (17.2)
C19	Damaging objects/property in public spaces	67 (15.5)
C15	Stealing objects/money from automatic machines, public phones	50 (11.6)
C11	Stealing objects in supermarkets and stores when opened	34 (7.9)
C6	Carrying a weapon (e.g. knife) in case of fight	32 (7.4)
C13	Stealing materials/tools from working people	29 (6.7)

and ANOVA with Tukey's post-hoc tests for more than two groups. A p-value < 0.05 was considered statistically significant.

The mean scores were also compared with two national, Tlalnepantla (Sánchez-Velasco et al., 2018) and Puebla (Gaeta & Galvanovskis, 2011), and with two international, Colombia (Uribe-Rodríguez et al., 2016) and Almería, Spain (Perez-Fuentes et al., 2014), populations that used the same ACB instrument for variables in which data was reported by the authors. Finally, a binary logistic regression model with crude and adjusted odds ratios (OR) with 95 % confidence intervals (CI) was used to identify those variables (i.e., risk factors) associated with the probability of having any kind of criminal behavior (i.e., at least one positive response out of the 20 included in the domain).

Results

Table 1 ranks the six most frequent positive responses for the antisocial and criminal domains. Half or more of the students gave an affirmative response for the following antisocial behaviors: "eating when not allowed at class, job, or public place" (67.5 %), "arriving late to school or meeting" (51.7 %), and "knocking at someone house's door and run away" (49.9 %). Criminal behaviors were less common, with the following three reaching 10-20 % of affirmative answers: "spending money in gambling more than what is possible" (17.2 %), "damaging objects/property in public spaces" (15.5 %), and "stealing objects/money from automatic machines, public phones" (11.6 %).

Table 2 compares mean scores for antisocial and criminal behaviors by students' characteristics.

Table 2.

Mean scores for antisocial and criminal behaviors in students of secondary school by selected individual characteristics in the City of Chihuahua, northern Mexico, 2020.

Variable	Category	n	Mean (s.d.)*	
			Antisocial	Criminal
Student's sex	Male	210	6.01±4.64	1.35±2.03[a]
	Female	221	5.52±4.21	0.89±1.69[b]
School grade	7th (1st secondary)	158	4.97±4.38[a]	0.94±1.78[a]
	8th (2nd secondary)	132	5.39±4.35[a]	0.98±1.86
	9th (3rd secondary)	140	7.05±4.28[b]	1.44±1.97[b]
Has failed a school year	Never	395	5.69±4.33	1.04±1.79[a]
	At least once	34	6.62±5.38	1.91±2.64[b]
Family situation	Doesn't live with parents	9	6.00±3.64	1.00±1.65
	Lives with father	10	4.50±3.50	1.60±2.27
	Lives with mother	151	5.54±4.71	1.19±1.88
	Lives with parents	258	5.97±4.32	1.07±1.88
Reported family problems	No, none	212	4.58±3.88[b]	0.70±1.32[b]
	Yes, few	161	6.57±4.63[a]	1.42±2.20[a]
	Yes, some	42	7.95±4.60[a]	2.02±2.31[a]
	Yes, many	14	8.00±4.11[a]	1.36±2.24
Most common free time activity	Meeting with family	117	4.74±3.92[b]	0.67±1.41[b]
	Playing sports	86	5.24±4.40	1.09±2.19
	Social networking	94	6.49±4.75[a]	1.28±1.78[a]
	TV & playing videogames	70	6.77±4.16[a]	1.44±1.92[a]
	Hanging out with friends	42	6.62±4.80	1.52±2.27
Currently working (any job)	No	378	5.81±4.37	1.12±1.86
	Yes	51	5.53±4.88	1.12±2.03
Total		430	5.78±4.42	1.12±1.88

* Student's t-tests were used for two groups, and ANOVA with Tukey's post hoc tests for >2 groups

Table 4.

Comparison of antisocial and criminal mean scores according to the Antisocial-Criminal Questionnaire among secondary school students from Chihuahua and from other Mexican and Hispano-American students.

Stratified variables	Mean score ± s.d. (n)*				
	Chihuahua, 2020 (public/private, grades 7-9)	Colombia, 2016 (public, grades 6-11)[1]	Almería, Spain, 2013 (public, grades 7-10)[2]	Tlalnepantla, Mexico, 2017 (public, grades 7-9)[3]	Puebla, Mexico, 2011 (private, grades 7-12)[4]
Antisocial	5.70±4.4 (430)	5.48±5.4 (770)	9.30 (885)	9.89 (30)	11.14 (150)
Male	6.01±4.6 (210)	5.75±5.7 (368)	9.76±5.6 (441) [a]	10.76 (17)	12.16±4.8 (77) [a]
Female	5.52±4.2 (221)	2.33±3.8 (402)	8.45±5.2 (444) [b]	8.77 (13)	10.08±4.1 (73) [b]
7th grade	4.97±4.3 (158) [a]	4.15±4.7 (141)			
8th grade	5.39±4.3 (132) [a]	4.77±4.8 (147)			
9th grade	7.05±4.2 (140) [b]	6.11±5.5 (118)			
Has failed a school year	6.62±5.3 (34)			10.50 (18)	
Has not failed a school year	5.69±4.3 (395)			9.00 (12)	
Lives with both parents	5.97±4.3 (258)			10.05 (20)	
Lives with one parent	5.47±4.6 (161)			9.60 (10)	
Criminal	1.12±1.8 (430)	1.75±3.4 (770)	2.20 (885)	1.96 (30)	2.01 (150)
Male	1.35±2.0 (210) [a]	5.16±4.9 (368)	3.07±4.0 (441) [a]	2.35 (17)	3.29±3.8 (77) [a]
Female	0.89±1.6 (221) [b]	1.25±2.9 (402)	1.34±2.1 (444) [b]	1.46 (13)	0.68±1.3 (73) [b]
7th grade	0.94±1.7 (158) [a]	2.12±4.0 (141)			
8th grade	0.98±1.8 (132)	2.03±3.8 (147)			
9th grade	1.44±1.9 (140) [b]	1.91±3.7 (118)			
Has failed a school year	1.91±2.6 (34) [a]			2.11 (18)	
Has not failed a school year	1.04±1.7 (395) [b]			1.75 (12)	
Lives with both parents	1.07±1.8 (258)			1.85 (20)	
Lives with one parent	1.21±1.9 (161)			2.20 (10)	

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* Different superindex letters indicates statistically significant difference ($p<0.05$) between the comparison group in each

various individual attributes: Men had higher criminal mean scores compared with women (1.35 vs. 0.89); 9th graders also had higher means for both antisocial and criminal behaviors compared with 7-8th graders; students who had failed at least one previous school year had a higher criminal mean than those who never did so (1.91

Table 5.

Odds ratios (OR) from logistic regression for the probability of having any kind of criminal behavior[1] among secondary school students in the City of Chihuahua, Mexico, 2020.

Variable	Category	OR (95% CI)	
		Crude	Adjusted[2]
Sex	Female	1.00	1.00
	Male	1.42 (0.97-2.09)	1.47 (0.95-2.29)
School performance, tercile[1]	Highest	1.00	1.00
	Intermediate	0.91 (0.54-1.53)	0.80 (0.42-1.52)
	Lowest	2.81 (1.45-5.43)	3.52 (1.63-7.59)
Type of school	Public, regular	1.00	1.00
	Private, high-income	1.15 (0.65-2.02)	1.84 (0.94-3.59)
	Private, middle-income	0.96 (0.46-1.99)	1.74 (0.73-4.09)
	Public, technic/TV-secondary	2.14 (1.16-3.94)	2.90 (1.40-6.02)
School grade	7th	1.00	1.00
	8th	0.83 (0.51-1.36)	0.79 (0.46-1.36)
	9th	2.05 (1.29-3.26)	2.39 (1.43-3.99)
School's ENLACE result	Good or excellent	1.00	-
	Fair or failed	1.54 (1.01-2.35)	
Has failed a school year	Never	1.00	1.00
	At least once	2.42 (1.17-4.98)	2.18 (0.97-4.92)
Reported family problems	No, none	1.00	1.00
	Yes, few	1.81 (1.19-2.76)	1.77 (1.10-2.83)
	Yes, some/many	3.13 (1.70-5.75)	3.05 (1.55-6.02)
Most common free-time activity	Meeting with family	1.00	1.00
	Playing sports	1.64 (0.92-2.99)	1.77 (0.91-3.43)
	Social networking	3.02 (1.69-5.37)	3.07 (1.63-5.79)
	TV & playing videogames	3.29 (1.76-6.15)	2.90 (1.45-5.77)
	Hanging out with friends	2.77 (1.33-5.76)	3.59 (1.57-8.23)

[1] Based on the AC-Questionnaire, n=431; responses with 0=251 (59.2%), responses between 1 (min)-11(max)=180 (41.8%).
[2] Significant or marginally significant variables remained in the final adjusted model (Nakelkerke=0.23; H-L Chi^2 p = .57)

vs. 1.04); having no family problems resulted in significantly lower antisocial and criminal means compared with those reporting few, some or many; and meeting with the family as the most frequent free time activity also resulted in lower antisocial and criminal mean scores compared with other activities such as social networking, watching TV/playing videogames, and hanging out with friends. For family situation and having a job, no statistical differences were seen in either domain.

The mean scores for the students' antisocial and criminal behaviors by school characteristics are presented in Table 3. Statistical differences were seen across some variables: public schools in general had lower mean scores compared with private schools (5.52 vs. 6.61); when further stratified, high-income private schools had the highest mean score for antisocial behavior (7.44), followed by tele-secondaries (7.06); yet, for criminal behavior, most schools had a relatively low mean score close to 1.00, except for the public-technical (1.71) and tele-secondaries (2.31); the schools' performance percentile, as well as the schools' results in the PLANEA and ENLACE tests tended to showed higher scores for students coming from schools that failed the evaluation or that were in the lowest percentiles, especially for the criminal behavior. The ratio student:personnel showed no clear trend for either domain.

Mean score comparisons between the students from Chihuahua and other relevant populations (Gaeta & Galvanovskis, 2011; Pérez-Fuentes et al., 2014; Uribe-Rodríguez et al., 2016; Sánchez-Velasco et al., 2018) that used the same ACB questionnaire are presented in . Pertinent comparisons were not straightforward, as school grades across populations varied (Chihuahua 7-9, Colombia 6-11, Almería 7-10, Tlalnepantla 7-9, and Puebla 7-12). Except for Colombia, where the mean score was similar to that of the students from Chihuahua (5.48 vs. 5.70), the means for antisocial behavior in the other populations were notably higher ranging from 9.30 in Almería to 11.14 in Puebla. For criminal behavior the mean score in Chihuahua was lower (1.12) compared with all other populations ranging from 1.75 in Colombia to 2.20 in Almería. Men had consistently higher antisocial mean scores across all populations compared; yet, for criminal behavior the mean score gap was narrower in Chihuahua (men 1.35, women 0.89) compared with the other surveys, but especially with Colombia (men 5.16, women 1.25). Higher school grades were associated with higher mean scores in both domains in Chihuahua (antisocial: 7th 4.97, 8th 5.39, and 9th 7.05; criminal: 7th 0.94, 8th 0.98, and 9th 1.44), but only for antisocial in Colombia (antisocial: 7th 4.15, 8th 4.77, and 9th 6.11; criminal: 7th 2.12, 8th 2.03, and 9th 1.91), the only available comparison population for this variable. Having failed a school year was related to higher mean scores for both domains in Chihuahua and Tlalnepantla, though means were notably higher in the latter. Living with both parents showed small differences in both domains for both, Chihuahua and Tlalnepantla.

Table 5 presents crude and adjusted odds for the probability of having any kind of criminal behavior. Results showed the following relevant adjusted estimates (OR; 95% CI): being male versus female (1.47; 0.95-2.29); being in the lowest tercile of school performance versus the highest (3.52; 1.63-7.59); attending a technical or tele-secondary public schools compared with regular public schools (2.90; 1.40-6.02); being in the 9th versus the 7th grade (2.39; 1.43-3.99); having failed at least one school year compared with not having failed any (2.18; 0.97-4.92); reporting family problems versus having none (few 1.77; 1.10-2.83 and some/many 3.05; 1.55-6.02); and watching TV and playing videogames (2.90; 1.45-5.77), social networking (3.07; 1.63-5.79), and hanging out with friends (3.59; 1.57-8.23) versus meeting with the family, as the most common free-time activity.

Discussion

This survey aimed at estimating the prevalence of antisocial and criminal behaviors of secondary school students in the city of Chihuahua, and to explore associated factors.

The overall mean score (scale 0-20) for antisocial and criminal behaviors was 5.78 and 1.12 points, respectively. These means can be directly compared with the samples from Tlalnepantla 9.89 and 1.96 (grades 7-9, n = 30) (Sánchez-Velasco et al., 2018), Puebla 11.14 and 2.01 (grades 7-12, n = 150) (Gaeta & Galvanovskis, 2011),

Colombia 5.48 and 1.75 (grades 6-11, n = 770) (Uribe-Rodríguez et al., 2016), and Almería 9.30 and 2.20 (grades 7-10, n = 885) (Uribe-Rodríguez et al., 2016). Thus, students from Chihuahua had the lowest mean in both domains. For antisocial behavior, Colombian students had relatively similar mean scores, but for criminal behaviors, all compared populations had notably higher means.

The results revealed the most prevalent antisocial and criminal behaviors reported by students in both public and private schools. The findings can be directly compared with those from the Colombian study conducted in a sample of 770 students aged 10-19 years from five public schools located in five cities (Uribe-Rodriguez et al., 2016), where the prevalence of antisocial and criminal behaviors ranged 13.3-40.2 % (Chihuahua 13.0-67.5 %) and 3.9-15.2% (Chihuahua 1.4-17.2%), respectively. The four most frequent antisocial behaviors in Colombia (vs. Chihuahua) included "swearing/insulting with violence/discrimination" (40.2 % vs. 36.2 %), "eating when not allowed at class, job, public place" (39 % vs. 67.5 %), "arriving late to school or meeting" (37.3 % vs. 51.7 %), and "knocking at someone house's door and run away" (36.6 % vs. 49.9 %), with these four being in the list of the six most prevalent antisocial behaviors reported in Chihuahua. For criminal behaviors, the three most common in Colombia (vs. Chihuahua) included "carrying a weapon in case of fight" (15.2 % vs. 7.4 %), "spending more money on games/gambling" (14.5 % vs. 17.2 %), and "entering a forbidden place or buying illegal drinks" (13.2 % vs. 6.3 %), with two of these behaviors being in the list of the six more frequent criminal behaviors reported in Chihuahua. The relative similarity of results between both surveys point to similar biological, psychological, and cultural predictors between these Latin-American settings, as it has been suggested previously (De Ribera et al., 2019).

Men had slightly higher antisocial and criminal mean scores compared with women, consistent with the reported in the literature (Archer, 2004; Burt et al., 2018; Moffitt, 2018). In multivariate analysis, men also had a higher adjusted ORs for the report of any criminal behavior compared with women, but statistical significance was marginal. For antisocial behaviors, recent school-based data indicates that the etiology varies by sex with genetic influences being stronger in girls and environmental influences in boys (Burt et al., 2018). There is also evidence showing that men are more prone towards physical violence than women from early childhood to adulthood, and that antisocial behavior in males is stronger during the adolescent period, which can persist throughout life or be limited to adolescence (Moffitt, 2018). The fact that the differences observed were relatively small could relate to the students' age, in the early adolescence, when such behaviors have not yet peaked (Mahoney & Stattin, 2000). The sex differences observed also match those from the national (Gaeta & Galvanovskis, 2011; Sánchez-Velasco et al., 2018) and international (Perez-Fuentes et al., 2014; Uribe-Rodríguez et al., 2016) populations compared; however, the sex gap was relatively narrower in Chihuahua, especially when compared with Colombia (Uribe-Rodriguez et al., 2016) for both antisocial (Chihuahua: men 6.01, women 5.52; Colombia: men 5.75, women 2.33) and criminal (Chihuahua: men 1.35, women 0.89; Colombia: men 5.16, women 1.25) behaviors. More research is needed to understand these differentials.

An increase in mean scores for antisocial and criminal behaviors by school grade, a proxy for age, was observed. Students in the 9th grade, aged around 16 years old, showed the highest risk. This finding was replicated in regression analysis, where students from the 9th grade had 2.39 times higher chance of reporting a criminal behavior compared with those from the 7th grade. Age progression has been studied in association with antisocial and criminal behaviors (Dishion & Patterson, 2015; Teymoori et al., 2018; Tieskens et al., 2018; Tremblay et al., 2004; Van Goozen et al., 2022). Research shows that the first deviant behaviors (e.g., physical aggression against others) begin at an early age (Calkins & Keane, 2009; Teymoori et al., 2018; Tremblay et al., 2005). Then, during the schooling stage, children begin to take risks associated with antisocial behaviors (Tieskens et al., 2018). Later, antisocial, and criminal activities increase during adolescence, and in most cases decline as individuals enter adulthood forming the inverted u-shaped age-crime curve (Moffitt, 2018; Monahan et al., 2009). However, there is a group of adolescents who will display persisting antisocial behaviors (Moffitt, 2018), some of whom show deficits in psychosocial maturity (e.g., impulse control and suppression of aggression) (Monahan

et al., 2009). The school grade trend seen in Chihuahua was similar to the reported in Colombia (the only available population for direct comparisons) for antisocial behavior, but not for criminal behavior, where Colombian students showed notably higher and stable mean scores (Uribe-Rodriguez et al., 2016). With the data at hand is difficult to know whether this is related to differences in maturation timing or to other environmental factors.

Compared with public schools, students from private institutions (especially of high-income) had a slightly higher mean score for antisocial behavior, but the opposite was true for criminal behavior, as it has been previously observed (DeAngelis & Wolf, 2019; Shakeel & DeAngelis, 2018); in fact, mean scores for criminal behavior were highest among students from technic and tele-secondaries, which are considered of lower quality. These schools also had nearly three times significantly higher adjusted odds for the report of any criminal behavior compared with general public schools in multivariate analyses. Technic schools provide personalized education with the double purpose of bringing students to the next educational level and to provide them with technical skills to get a job in case they cannot continue studying; tele-secondaries provide education to students living in marginalized areas. Therefore, students from these schools are usually of low socioeconomic status and more vulnerable to various conditions.

The ratio of school personnel to students was used as a proxy for personalized care (i.e., teachers addressing students' misbehavior and promoting positive youth socialization). The hypothesis was that schools with lower teacher-to-student ratios would have lower risks of criminal behaviors (Arum & LaFree, 2008); however, the results of this survey showed no clear trends in either domain.

The reported association between schools' performance and criminality (Petrocelli & Petrocelli, 2005) was the basis for using the ENLACE and PLANEA tests. ENLACE showed higher differentials for antisocial and criminal behaviors for schools that failed the test. In regression analyses, it was also observed that the lowest tercile in school performance was associated with 3.5 higher adjusted OR for reporting any kind of criminal behavior compared with the highest tercile. These results go in line with the inverse relationship reported between test scores and crime (Petrocelli & Petrocelli, 2005), including in Mexico (Orraca-Romano, 2018). Evidence shows that neighborhood's violent crime is associated with a 3 % difference in test scores in school tests, with those students living on high-crime streets scoring an additional 1 % lower than neighbors of safer streets (O'Brien et al., 2021).

At individual level, having failed an academic year was associated with higher mean scores for both antisocial and criminal behaviors in this survey, reaching statistical significance in the latter. Failing a year was also associated with 2.18 times higher chance of reporting any criminal behavior compared with not having failed. A study from Mexico using aggregated data reported an association between grade failure rate and a rise in homicide rates in the areas where the schools are located (Orraca-Romano, 2018). These results highlight the vulnerability of students who have failed previous years and point to importance of targeting preventive efforts to these adolescents.

Family problems was associated with statistically higher mean scores for both domains, but most importantly, reporting family problems showed a clear trend in the adjusted ORs for any criminal behavior as reported problems increased. A study with adolescents looking at distal (parents' disposition), contextual (family characteristics), and proximal (parent-child interaction) factors revealed that proximal factors were significant predictors for antisocial behaviors, while distal and contextual factors seemed to play a more indirect role (Deković et al., 2003). For criminal behaviors, lack of parental control during adolescence appears to have a positive association with delinquency both concurrently and longitudinally into young adulthood (Harris-McKoy & Cui, 2013). As observed in this survey, in the study from Tlalnepantla the mean score for criminal behavior was noticeable higher among students living with only one parent compared with both parents (Sánchez-Velasco et al., 2018) pointing to the stability of the family as a relevant factor to be considered.

In terms of free-time activities, it was found that meeting with the family was protective for both antisocial and criminal behaviors compared with the other activities asked. Students hanging out with friends, social networking, and watching TV and/or playing videogames had nearly three times higher chance of having a criminal behavior compared with meeting with the family. Previous studies have shown that participation of adolescents in highly structure leisure activities was linked to lower levels of antisocial behaviors compared with those engaged in less structured activities (Mahoney & Stattin, 2000). There is also evidence from a systematic review that adolescents who spend most of their time watching TV are at greater risk of violent behaviors (Keikha et al., 2020). It is then important to consider using structured leisure activities when planning and implementing prevention strategies for students at risk.

Various methodological limitations ought to be taken into account when contextualizing the results of this study: The first limitation relates to the instrument used, namely, the adapted Mexican version (Seisdedos-Cubero & Sánchez-Escobedo, 2001) of the ABC questionnaire (Seisdedos-Cubero, 1995), which precludes comparisons with other surveys conducted in other Mexican and Latin-American settings, and in other regions of the world. This tool was used because normative behavior varies across cultures, nationalities, and locations, as psychological constructs are dependent on the cultural context in which tests are used (Graham et al., 2016). Since this instrument was design for a Hispanic population, and later adapted to the Mexican context, it was then possible to establish rather "direct" comparisons with surveys from Mexican, Latin-American, and Hispanic populations that used the same instrument. The second limitation concerns the partial number of factors assessed. The individual and school variables measured and tested were selected from a relatively large list of factors reported in the literature, based on the potential accuracy of the responses obtained; this was data that students themselves and school authorities could provide directly and free of information bias. The third study limitation relates to the relatively high non-response rate (32.6 %), which led to lower sample power and to a potential selection bias. While statistical power decreased, it should not be considered a major issue given the relatively small margin of error used initially (3.5 %) to compute the original sample, along with the additional 10 % estimated for possible non-response; thus, the final sample resulted in a still acceptable margin of error below 5 %, which is quite standard for this kind of surveys. In contrast, the non-response rate could indeed introduce selection bias. However, it is important to stress that this was not the result of students' or parents' reluctance to participate, but to the schools' unwillingness to take part. Most non-participating schools were private and of high-income. The main reason given was the school parents' associations' refusal to participate. As to the potential direction of the bias, one could think that the overall mean score for antisocial behavior would be somewhat underestimated, as students from the high-income private schools had higher mean scores for these behaviors. Conversely, the mean score for criminal behavior would be overestimated, as students from these schools had the lowest mean score.

In conclusion, results portrait a comparatively mild scenario in terms of antisocial and criminal behaviors in secondary school students from Chihuahua City. However, specific risk groups are identified, such as students from technical schools and tele-secondaries, students who had failed previous years, those with family problems, and 9th-graders, to which preventive programs could be targeted and implemented.

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PERSON-CENTRED CARE APPROACH BY PROFESSIONAL CAREGIVERS IN POPULATION WITH MENTAL ILLNESS: SYSTEMATIC REVIEW

ENFOQUE DE ATENCIÓN CENTRADA EN LA PERSONA POR CUIDADORES PROFESIONALES EN POBLACIÓN CON ENFERMEDAD MENTAL: REVISIÓN SISTEMÁTICA

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Abstract

The model of Person-Centred Care (PCC) has as fundamental principles the emphasis on the person within its context, individualized attention and empowerment. However, studies about this approach on mental illness (MI) are scarce. The aim of this work is to carry out a systematic review of articles studying the approach of PCC provided by professional caregivers in people with MI. After analysis of the 19 articles, the results show that PCA leads to positive outcomes for patients, such as increased patient engagement, adherence and quality of treatment, and the opportunity to better manage their disease, as well as for professionals, such as better conditions to support them and an "optimistic attitude". However, more information for users, more emphasis on the relationship between users and services, and more training of professionals are needed.

Keywords: person-centred care; formal caregiver; mental health; systematic review.

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Resumen

El modelo de Atención Centrada en la Persona (ACP) tiene como principios fundamentales el énfasis en la persona dentro de su contexto, la atención individualizada y el empoderamiento. Sin embargo, los estudios de este enfoque en enfermedades mentales (EM) son escasos. El objetivo de este trabajo es realizar una revisión sistemática de los artículos que estudian el abordaje de la ACP que brindan los cuidadores profesionales en personas con EM. Tras el análisis de los 19 artículos, los resultados muestran que la ACP conlleva resultados positivos para los pacientes, como una mayor participación, adherencia y calidad del tratamiento, y la oportunidad de gestionar mejor su enfermedad, así como para los profesionales, como mejores condiciones para apoyarlos y una "actitud optimista". Sin embargo, son necesarios más información para los usuarios, más énfasis en las relaciones entre éstos y los servicios y una mayor formación de los profesionales.

Palabras clave: atención centrada en la persona; cuidador formal; salud mental; revisión sistemática.

Introduction

The American Psychiatric Association (APA, 2020) defines mental illness (MI) as a significant alteration of emotional, cognitive and/or behavioral type, where basic psychological processes such as emotion, motivation, cognition, awareness, behavior, perception, learning, or language are often affected. In addition, MI are associated with subjective distress and problems in social, professional, or cultural functioning. Treatment of MI requires long-term interventions that may include periods of hospitalization. Currently, is being developed a model that focuses on the provision of services in which the subject has a passive role as a receiver of services. Patients often feel that they have very few opportunities to work alongside their professional caregivers and that, in these few interactions, their attempts to participate are ignored.

The fundamental principles from the so-called Person-Centred Care (PCC) model are the change in the focus of attention of the disease to the person within their social context, taking into account their experiences, values and preferences, the individualized attention determined by the needs and preferences of each person rather than by the organization standards and the promotion of empowerment respecting the values of freedom and choice (Smith & Williams, 2016). PCC also provides a greater sense of choice and control of care and support, higher quality of life, increased degree of subjective well-being mood, autonomy, dependency, and satisfaction with the care received, reduction of the use of emergency and hospitalization services and greater profitability (Smith, & Williams, 2016). Despite the significant extension of this approach, the absence of clear consensus and definition regarding its meaning can become a barrier for both its implementation and its evaluation (Sharma et al., 2016).

Furthermore, PCC ensures that professionals are trained in the relevant skills and methodology, as caregivers are one of the agents that have the greatest impact on the quality of life of the cared-for person (Abraha et al., 2017). Furthermore, due to the high burden of caregiving on caregivers, their own well-being should certainly be taken into account and intervention goals should aim to provide them with different types of support to improve their quality of life. Current studies on formal caregivers working with populations such as people with dementia or functional diversity are beginning to suggest that the provision of PCC can produce multiple benefits not only among the care recipient, but also for the workers themselves (Smythe et al., 2020).

The PCC model addresses such important and overlooked aspects as the quality of care provided, respect for the rights of these people and their full participation in everything that concerns them, and it has multiple benefits for both them and the caregivers who apply it. However, there is still a lot of research to be done on the use of this approach in MI. For this reason, the aim of this paper is to carry out a systematic review of the literature that addresses the study of PCC, through empirical research or interventions, provided by professional caregivers in people with MI. The specific objectives are to find out the main characteristics of PCC and what outcomes it offers for professional caregivers and for people with MI.

Methodology

For the correct elaboration of this study, guidelines for carrying out systematic reviews proposed in the PRISMA statement (Page et al., 2021) have been followed (Appendix A).

Information sources and search strategy

The systematic search was performed between the months of May and June 2020 in the Web of Science (WoS), PubMed, ScienceDirect and Dialnet databases, including all articles published from 1900 to 2019 (inclusive). The combination of terms used are the following: "person-centred" care AND mental health and "person-centred" care AND mental illness. These were searched for in the topic field for WoS, title and abstract for PubMed, title, abstract and keywords for ScienceDirect; and the equivalent terms in Spanish for Dialnet. A total of 798 articles were recovered: 409 articles in WoS, 264 in PubMed, 58 in ScienceDirect and 67 in Dialnet.

Eligibility criteria

Although no protocol was recorded, before reading the abstracts and selecting the final sample of articles, the inclusion and exclusion criteria were defined.

The inclusion criteria were: (a) articles that included empirical research or interventions, (b) that investigated the application of PCC by formal caregivers in people with MI, (c) in any language, and (d) to which full-text access was possible.

The exclusion criteria were: (a) articles that included synthesis studies (i.e., systematic reviews or meta-analyses), (b) that include people with other types of illnesses or dementias, (c) that included informal caregivers as participants, and (d) that include other care approaches (e.g., traditional community care model).

Selection process

Since the definition and interpretation of PCC varies extensively (Gondek et al., 2016; Sharma et al., 2016), articles containing elements common to this approach were accepted. The summaries of all the articles were read, and only 46 were considered adequate after passing an initial screening process. After the screening, an analysis of the full text of these 46 articles was carried out. With that, 27 were eliminated, as they did not include empirical research or interventions (n = 6) or did not include persons with MI (n = 4) or did not include PCC (n = 14) or for problems with accessing the entire document (n = 3). The remaining 19 articles that met all the inclusion criteria were selected for analysis in the systematic review. This process was carried out by one of the authors and corroborated by another using the Covidence tool (Veritas Health Innovation, 2014).

Data collection process

From each of the articles included in the systematic review, the following data were extracted: authors, year and country of study, aim, methodology, participants, outcomes, and limitations.

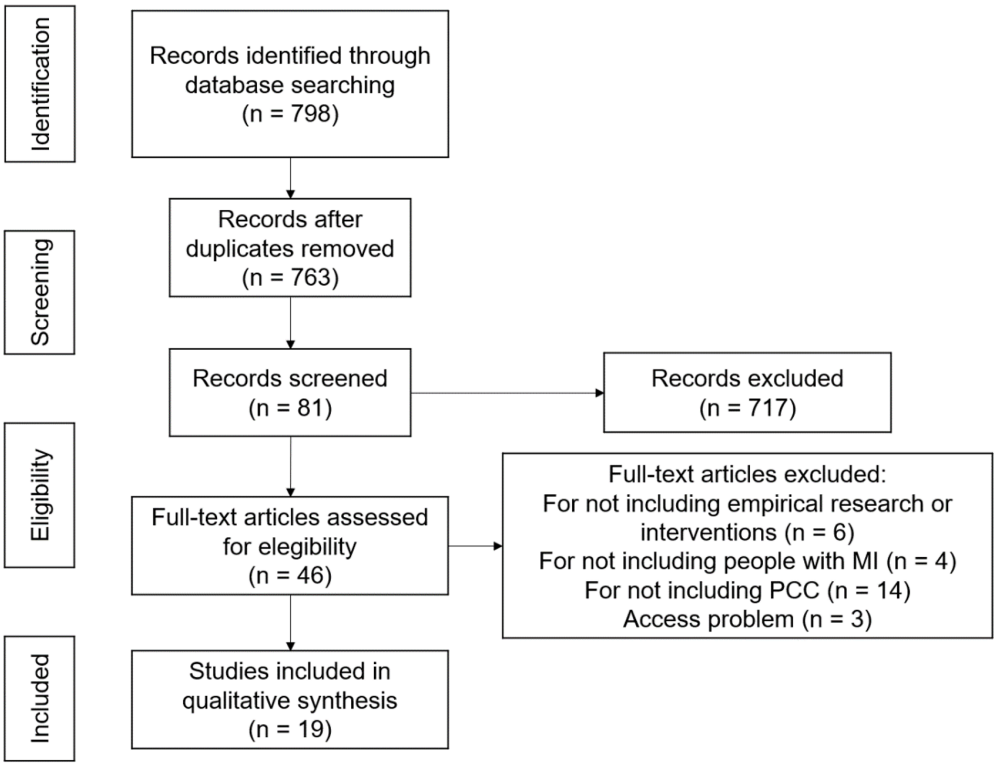
Results

The search process and the number of selected and excluded results can be seen in Figure 1.

Most of the articles are empirical research (n = 13), followed by articles dedicated to interventions (n = 6). In terms of the aims of the work, these include implementation and evaluation of intervention programs (n = 6), study of shared decision-making (n = 4), recovery-oriented care (n = 4), skills used by professionals in the context of PCC (n = 2), experiences in sensory rooms (n = 2) and disconnection from hospital services (n = 1). All of them are divided into quantitative (n = 2), qualitative (n = 13) and mixed methods (n = 4) studies, and cross-sectional (n = 13) and longitudinal (n = 6) studies. Some of these studies have not exposed the limitations of their studies

Figure 1.

PRISMA flowchart.



(n = 5). Through the analysis carried out, several different but interrelated topics have been developed below.

Shared decision-making between professional and patient plays a fundamental role in providing PCC. Developing the care plan with the nurse is seen by the person with MI as just helpful in their recovery as the goals and strategies themselves. In addition, it allows staff to better understand the objectives of the participants and to be better able to support them (Reid et al., 2018). This approach can also be used for collaborative prescription of medication, although its implementation depends on a variety of barriers and facilitators at micro (the most powerful and dependent on the appropriate relationships between users, caregivers and mental health professionals), meso (through a holistic approach to treatment and recovery-based activities to engage users) and macro levels (top-down protocols; Brooks et al., 2017). This joint decision-making is essential to promote a healthy lifestyle and it must be present at all levels of the organization (Lundström et al., 2019). In developing countries, the use of this approach can be limited due to the inaccessibility of the chosen treatment, and because it is only used when people are considered as clinically "recovered". Furthermore, caregivers argue that the use of coercion is justified to guarantee the intake of medication (Souraya et al., 2018). It has been found two intervention programs which contain this decision-making approach and, in addition, person-centred relationships and self-directed service (SDS) components (Buchanan et al., 2014; Peterson et al., 2014). In both studies, the results show that the application of these elements allows a greater sense of empowerment and an expansion of connections with the community, as

well as an enriched sense of oneself and a better quality of life.

Recovery-oriented care is another key element in PCC. The use of this approach can lead the person with MI to an increase in resilience, to stronger connections with therapeutic services and to a better understanding of mental health and of the importance of seeking help (Green et al., 2019). Moreover, it can produce to the professionals who use it an "optimistic attitude" that comprises a more positive vision of the future of MI patients, a “new approach to dialogue with clients" in which they focus more on the individual’s goal for recovery than in disease-induced goals and, finally, a “person-centred role” through which they value the patient's own ideas, as well as professional standards (Dalum et al., 2015). A study carried out by the team of Hornik-Lurie et al. (2018) with a sample of professionals trained in recovery-oriented care and another one untrained, reveals more significantly positive attitudes in the experimental group than in the control one. Furthermore, the use of this approach is seen by people with MI as necessary to avoid readmission and to improve their quality of life (Cleary et al., 2012). Regarding the disconnection of hospital services, users manifest that the greatest sources of dissatisfaction are related to not feeling involved in the care plan, as well as not knowing the availability of treatments (Nolan et al., 2011). Their main concerns are related to the health and community services and installations available at medical discharge, and to seeking help to overcome loneliness, to structure the day and to find accommodation (Nolan et al., 2011).

Two of the studies implement a community PCC program (Banfield, & Forbes, 2018; Paziuc, 2018). The first one, which contains a sample that includes people with MI, caregivers and service providers, reveals that all participants feel satisfaction with the service in most dimensions (communication, continuity, coordination, teamwork and sustainability). The second one, whose key element is case management, has been associated with an improvement in symptoms and in the level of social and global functioning, with fewer days of hospitalization, with a greater number of contacts between clients and professionals, with a decrease in dropout rates of mental health services and with a lower total cost of care. On the other hand, the team of Stiles et al. (2008) has made a comparison of treatment approaches that include cognitive behavioral therapy (CBT), person-centred therapy (PCT) and psychodynamic therapy (PDT). Comparing the groups treated with each approach, or with one of them plus an additional one (integrative, art or supportive), the results show that the six groups started the treatment with equivalent scores, and that all averaged a marked improvement. However, neither the treatment approach (CBT, PCT or PDT) nor the degree of purity ("alone" or "+1") had statistically significant differences and, furthermore, the distributions of the change scores were all similar.

The possibility of offering home PCC programs is another factor that has been studied. In the study by Giménez-Díez et al. (2019), all respondents report high levels of satisfaction with this type of service, although patients to a greater extent than relatives. In addition, 75% of users affirm that they prefer to spend crises at home and only 5% prefer in the hospital. Likewise, PCC can also be implemented through the use of sensory rooms in psychiatric care settings. Caregivers observe positive consequences in patients when they use them, and they affirm that these rooms are usually used as a self-regulation tool and as a preventive strategy in the face of increased anxiety (Björkdahl et al., 2016). Users, for their part, assert to have experienced a strong calming effect, as well as greater well-being, empowerment, and self-esteem (Lindberg et al., 2019).

Regarding the skills used by professionals to implement PCC, the most notable is the utilization of several “universal” participation skills such as the importance of person-centredness, an adequate communication for engagement, the empowerment of the patient and an easier connection with him (Procter et al., 2015). Also, the worker's attitude seems to be central to the success of the interventions, and those with a “positive attitude” seem to be more effective. However, the stigma of mental health problems and the negative attitudes of others are frequent barriers to establishing such contact networks (Webber et al., 2015) (see Appendix B).

Discussion

The findings of this research show that some authors (Gondek et al., 2016) begin to expose that there is a need, first of all, to create a common definition of PCC and a conceptualization of the policies that support quality results in the provision of services. The application of effective and quality PCC also requires previous training and formation for caregivers and professionals who put it into practice (Eiroa-Orosa & García-Mieres, 2019; Gondek et al., 2016). Likewise, in accordance with other research (Bee et al., 2015), the studies analyzed in this review suggest the urgent need to establish an optimal level of communication between mental health professionals and users, as well as the importance of the promotion of positive relationships and the provision of quality information, in order to correct the imbalance perceived by users, which constitutes the main barrier when applying PCC. Another aspect that seems to be key is the professional care provided at home, since it seems that if institutionalization is avoided, stigma is reduced, and that treatment at home provides patients in crisis with a greater sense of control (Lawrence et al., 2016).

Shared decision-making between the person with MI and the professionals is an essential aspect in PCC. A multitude of studies have shown that this approach improves the quality of life and autonomy of MI patients, that leads them to better participation, greater adherence, and quality of treatment, and that offers them the opportunity to better manage their symptoms and their disease (Slade, 2017). However, studies such as that of Farrelly et al. (2016) show that there are numerous barriers that come mainly from professionals, such as ambivalence about care planning, the perception of many of them that they are already using PCC approach, and the limited availability of options for users. For this reason, direct training of mental health professionals become essential. Another aspect to take into account in PCC is recovery-oriented care. Thomas et al. (2017) tested in a recovery-oriented longitudinal study that patients experienced significant improvement in symptoms and levels of disability. Additionally, this method has also shown to promote empowerment and self-care. However, the degree of use of this approach is often limited only to stabilizing the patient and alleviating his symptoms, which shows that this type of care is far from adequate (Waldemar et al., 2016).

Thus, the implementation of the PCC depends on several factors. An investigation about the failures in the provision of health services highlighted that organizational and governance deficiencies can negatively affect the PCC (Bee et al., 2015). Furthermore, a systematic review carried out in various mental health settings distinguishes a series of factors that influence this aspect (Bee et al., 2015). In particular, professionals blamed users for a lack of interest and ability to participate, as well as the administrative burden and the lack of resources, training and experience in the PCC. On the other hand, users reported the limitations they encountered with regard to communication by the services, with scarce and low-quality information, with lack of emotional support and respect for their autonomy, and with a great imbalance of power with professionals.

As practical implications, several recommendations perceived as key to facilitating PCC are suggested with the aim of developing practical experience of working within this approach: provision of information for users and carers, provided in an understandable way; a shift from a paternalistic to a holistic culture, incorporating patient knowledge, experience, and expectations; better training of professionals; and a greater emphasis on service-user relationships.

This work is not without limitations. There is a high degree of methodological heterogeneity among the articles included in terms of study characteristics. In addition, future research should also explore the evaluation of the effectiveness of interventions. Also, the review was restricted to peer-reviewed publications and, therefore, different arguments may be presented in other sources of information, such as books or gray literature.

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Appendix

Appendix A: Checklist items

Section and Topic	Item #	Checklist item	Page where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	1
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	2-3
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	4-5
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	5
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	6
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	6
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	6
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	6-7
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	7
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	7
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	7
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	7
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	NA
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	6-7
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data	NA

Section and Topic	Item #	Checklist item	Page where item is reported
		conversions.	
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	NA
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	NA
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	NA
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	NA
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	NA
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	NA
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	7
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	6-7
Study characteristics	17	Cite each included study and present its characteristics.	7-20
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	11-20
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	NA
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	11-20
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	NA
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	NA
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	NA
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	NA

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Section and Topic	Item #	Checklist item	Page where item is reported
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	NA
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	21-22
	23b	Discuss any limitations of the evidence included in the review.	22
	23c	Discuss any limitations of the review processes used.	22
	23d	Discuss implications of the results for practice, policy, and future research.	22
OTHER INFORMATION			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	6
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	6
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	NA
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	23
Competing interests	26	Declare any competing interests of review authors.	23
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	NA

NA: Not applicable.[1]

Appendix B: *Synthesis of revised articles*

Authors, year and country of study	Aim	Methodology	Participants (gender, age and diagnosis/ profession)	Outcomes	Limitations
Giménez-Díez et al. (2019) Spain	To assess patients' and their families' satisfaction with the nursing care provided through a home care program offered by a hospital in Catalonia which administers PCC	Cross-sectional Qualitative (semi-structured interviews) and quantitative (questionnaires)	20 patients (7M and 13F) and 20 relatives (unreported)	High levels of satisfaction with the PCC model and with the service, patients to a greater extent than relatives; 75% of the participants prefer to spend their crises at home and only 5% in the hospital	Analysis only from the perspective of patients and relatives, and not from nurses; pressure to give the "correct answer"; difficulty filtering opinions about nursing care in a service that has other facets
Green et al. (2019) Australia	To examine key features of a subacute youth mental health residential service model, *Youth Prevention and Recovery Care* (Y-PARC) service	Cross-sectional Qualitative (semi-structured interviews)	288 patients (93M and 194F; 18-26; personality disorder, depressive disorder, anxiety disorder, psychosis), 14 former residents, 5 family members, 9 stakeholders, and 10 caregivers (unreported)	Practice at Y-PARC aligns with recovery-oriented care. High levels of satisfaction, greater resilience, stronger connections to therapeutic services and a better understanding of mental health and of the importance of seeking help	Low number of qualitative interviews, based on an acceptance strategy, possible sample bias; potential bias in practice reported by staff; the evaluation was conducted very shortly after the first 3 years of Y-PARC establishment
Lindberg et al. (2019) Sweden	To describe patients' own experiences of using sensory rooms in psychiatric inpatient care	Longitudinal Qualitative (interviews)	28 patients (16M and 12F; 15-64; bipolar disorder, depression disorder, ADHD, personality disorder, anxiety disorder, schizophrenia, mental behavioural disorder due to drug use)	Staying in the sensory room decreased emotional distress and muscle tension, there was an increase in well-being, empowerment, self-esteem and self-determination	Unreported

Authors, year and country of study	Aim	Methodology	Participants (gender, age and diagnosis/ profession)	Outcomes	Limitations
Lundström et al. (2019) Sweden	To describe mental health nurses' experiences of facilitating aspects that promote physical health and support a healthy lifestyle for people with SMI	Cross-sectional Qualitative (interviews)	15 caregivers (5M and 10F; 30-63; nurse)	Special importance in motivating patients to develop a healthy lifestyle, as well as taking into account the skills and experiences of each of them and joint decision-making	Recruitment of interviews took a long time; possible over-interest in the topic by nurses who participated
Banfield, & Forbes (2018) Australia	To evaluate the processes and outcomes of the *Partners in Recovery* initiative in the Australian Capital Territory	Longitudinal Qualitative (semi-structured interviews) and quantitative (questionnaires)	25 patients (7M, 15F and 3 unknow; ±42.82; unreported), 2 caregivers and 14 service providers (unreported)	Personalized attention was provided to participants with MI, who were satisfied with the dimensions of communication, continuity, coordination, teamwork and sustainability	Low number of recruited participants; those participants who were experiencing an acute episode of MI were not considered in the evaluation
Hornik-Lurie et al. (2018) Israel	To assess the knowledge, attitudes and practices developed following recovery-oriented training of nurses and other staff; to identify the benefits and challenges involved in the implementation of recovery-oriented intervention in psychiatric wards	Longitudinal Qualitative (interviews) and quantitative (questionnaires) Presence of control group	37 caregivers trained in recovery-oriented care and 35 untrained (14M and 58F; ±43; social-worker, nurse, occupational therapist, psychiatrist, psychologist)	Staff trained in recovery-oriented intervention showed significantly more positive attitudes towards recovery care than the control group in most cases	Disproportionate sampling method when trying to compare the small study group (trained staff) with those of the largest group (untrained); source of bias related to Cronbach's low alpha (α = 0.342) of a factor
Paziuc et al. (2018) Romania	To evaluate the impact of a Mental Health Program implemented Campulung Moldovenesc in comparison with standard treatment, on reducing symptoms and improving the overall level of functioning	Longitudinal Quantitative (scales and inventories)	91 patients (41.2% M and 58.8% F; ±50.6; schizophrenia and depression disorder)	Case management was associated with greater improvement in symptoms, fewer days of hospitalization, decreased rates of abandonment of mental health services, improvement in the level of social and global functioning	Unreported

Authors, year and country of study	Aim	Methodology	Participants (gender, age and diagnosis/ profession)	Outcomes	Limitations
Reid et al. (2018) Australia	To explore consumer experiences of collaborating in the development of a nursing care plan in an acute mental health unit	Cross-sectional Qualitative (semi-structured interviews)	12 patients (unreported)	Developing the care plan with a nurse was perceived as just useful for recovery as the goals and strategies themselves. Nurses were better able to support participants	Findings may not be directly applicable to other units and their approaches to care planning
Souraya et al. (2018) Ethiopia	To understand the extent of involvement of people with schizophrenia in decision-making relating to their care in Ethiopia in the context of a community-based rehabilitation (CBR) programme and to determine the main influencing factors	Cross-sectional Qualitative (focus groups and in-depth interviews)	18 patients (unreported; 18-70; schizophrenia) and 10 caregivers (4M and 6F; unreported; CBR worker)	Patient involvement in decision-making was limited and coercive practices were evident. Impossibility to execute desired choices due to inaccessible treatment	Non-generalized findings; data were collected at an early stage of the pilot study; possible information bias; users and caregivers may have been reluctant to criticize workers for fear of damaging their relationship
Brooks et al. (2017) England	To explore the potential use of a tool designed to enhance collaborative antipsychotic prescribing from the perspectives of secondary care mental health service users, carers and professionals	Cross-sectional Qualitative (focus groups and semi-structured interviews)	10 patients (5M and 5F; unreported), 10 caregivers (1M and 9F; unreported) and 13 professionals (10M and 3F; unreported; psychiatrist, nurse and pharmacist)	Participants identified a variety of barriers and enablers at micro (dependent on appropriate relationships between the groups), meso (through recovery-based activities), and macro (top-down protocols) levels	Unreported
Bjorkdahl et al. (2016) Sweden	To further understand the experiences of staff who work with sensory rooms in the psychiatric care setting	Cross-sectional Qualitative (open questions) and quantitative (questionnaires)	126 caregivers (unreported; 18-65; nurse and others)	92% of caregivers stated that the effects observed in patients were positive; patients used it as a self-regulation tool and as a preventive strategy in the face of increased anxiety	The chosen design could reach more participants with significant negative experiences; the questionnaire was used without a pre-test procedure

Authors, year and country of study	Aim	Methodology	Participants (gender, age and diagnosis/ profession)	Outcomes	Limitations
Dalum et al. (2015) Denmark and USA	To explore health care professionals' experiences when facilitating a recovery-oriented rehabilitation program	Longitudinal Qualitative (in-depth semi-structured interviews)	16 professionals (2M and 14F; unreported; social worker, psychologist, psychiatrist, nurse, occupational therapist)	The results highlight an "optimistic attitude" that includes a change in the attitude of professionals, a "new focus on customer dialogue" about their goals and a "person-centered role"	Unreported
Procter et al. (2015) Australia	To identify the skills and attributes deployed by rural mental health clinicians when engaging with consumers in the community mental health context	Cross-sectional Qualitative (semi-structured focus groups)	9 caregivers (2M and 7F; 30-60; unreported)	There are limitations such as consumer vulnerability and increased risk for physicians and consumers when other support services are lacking; importance of focusing on the person	The generalization of these findings could be limited; insights obtained from other regional settings with different populations (e.g., predominantly indigenous Australians) may differ
Webber et al. (2015) England	To understand how practitioners help people recovering from psychosis to develop their social networks	Cross-sectional Qualitative (semi-structured interviews, observation and informal discussions)	51 patients (32M and 19F; 16-59; unreported) and 73 professionals (30M and 43F; 20-60; social worker, nurse, occupational therapist, psychologist and other)	Workers with a "positive attitude" seemed to be more effective at improving users' social networks. Stigma of mental health problems and negative attitudes were common barriers	Possible bias towards supporting activities to generate social capital; social processes for training and maintaining social relations were not analyzed separately
Buchanan et al. (2014) Australia	To explore the recovery experiences of consumers with MI who had undertaken a pilot shared management, person-centred and SPS	Cross-sectional Qualitative (interviews and questionnaires)	16 patients (44% M and 56% F; ±46; unreported)	Consumers' recovery experiences included greater empowerment and community connections and a better quality of life	Data collected in the past and a small and self-selected sample reduce transferability

Authors, year and country of study	Aim	Methodology	Participants (gender, age and diagnosis/ profession)	Outcomes	Limitations
Peterson et al. (2014) Australia	To explore the impact of SPS components, including access to individualised funds, shared management, person-centred relationships, and the opportunity to self-direct their services on the lived experiences of consumers	Cross-sectional Qualitative (interviews and questionnaires)	16 patients (44% M and 56% F; ±46; unreported)	SPS enhanced consumer experiences and enabled access to recovery sources and quality support	The impact of SPS requires further exploration and validation; a self-selected and small sample size limits the transferability of results
Cleary et al. (2012) Australia	To ask acute inpatient mental health nurses about their understanding of recovery and how they are incorporating a recovery paradigm in their day-to-day nursing practice	Cross-sectional Qualitative (semi-structured interviews)	21 caregivers (unreported; nurse)	Positive attitudes, PCC, hope, MI education, medications and their side effects, and recognition of individual recovery pathways are necessary to prevent re-entry	Results may not be generalizable to other settings; very brief survey and open-ended questions, so complete answers were not available for a complex thematic analysis
Nolan et al. (2011) UK	To ascertain how individuals experienced disengaging from inpatient services with a view to determining what improvements could be made to render inpatient care more effective	Cross-sectional Qualitative (semi-structured interviews)	44 patients (18M and 26F; 18-71; unreported)	The main sources of dissatisfaction were with the ignorance of the goals, with not feeling involved in the care plan and with not knowing the available treatments	Unreported

Authors, year and country of study	Aim	Methodology	Participants (gender, age and diagnosis/ profession)	Outcomes	Limitations
Stiles et al. (2008) UK	To replicate a comparison of the outcomes of CBT, PCT and PDT as delivered in routine primary-care mental health practice within the UK National Health Service	Longitudinal Quantitative (scales)	5,613 patients (1,643M and 3,970F; 16-99; anxiety, depression disorder, interpersonal problems, trauma/abuse, addictions, eating disorder, personality disorder, psychosis)	All groups achieved significant improvements (TCC, TCP, TPD, TCC+1, TCP+1 and TPD+1). No significant differences were found among groups	Limited specification of treatments and responsiveness of the therapist; non-random assignment; lack of experimental control; restriction on a self-report measure; possible influence of the researcher; self-regulation as a potential responsible for benefits

M: male; F: female; ±: main age. ADHD: attention deficit hyperactivity disorder.